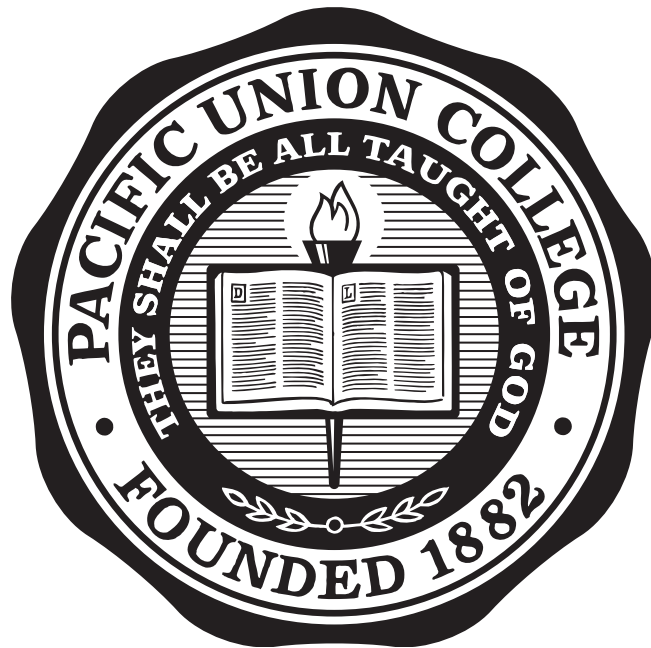


# PACIFIC UNION COLLEGE GENERAL CATALOG



2012-2014

131ST-132ND ACADEMIC YEARS

MAILING ADDRESS:  
ONE ANGWIN AVENUE  
ANGWIN, CA 94508-9707  
(707) 965-6311

PACIFIC UNION COLLEGE IS AN EQUAL OPPORTUNITY EDUCATIONAL INSTITUTION.

## **Pacific Union College**

### *Is accredited\* by:*

The Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges  
Western Association of Schools and Colleges  
985 Atlantic Avenue, Suite 100, Alameda, California, 94501  
(510) 748-9001, <http://www.wascweb.org>

Adventist Accrediting Association  
General Conference of Seventh-day Adventists  
12501 Old Columbia Pike, Silver Spring, Maryland 20904  
(301) 680-6000, <http://education.gc.adventist.org>

### *Offers programs accredited by:*

Commission on Teacher Credentialing  
Council on Social Work Education (Baccalaureate)  
International Assembly for Collegiate Business Education  
National Association of Schools of Music (Baccalaureate)  
National League for Nursing Accrediting Commission  
(Baccalaureate and Associate Degree Programs)

### *Is a member of:*

American Association of Collegiate Registrars and Admissions Officers  
American Association of Presidents of Independent Colleges and Universities  
Association of American Colleges and Universities  
Association of Governing Boards of Universities and Colleges  
Association of Independent California Colleges and Universities  
California Council on the Education of Teachers  
College Placement Council

Council of Independent Colleges  
Independent Colleges of Northern California  
National Association of Independent Colleges and Universities  
National League for Nursing  
North American Association of Summer Sessions  
Western Association of Graduate Schools

### *Is approved by:*

The Attorney General of the United States for nonimmigrant students  
California Board of Registered Nursing  
California Commission on Teacher Credentialing

## **Equal Opportunity Commitment**

Pacific Union College is committed to equal opportunity for qualified men and women of any handicap, race, color, national or ethnic origin. It extends to them all the rights, privileges, programs and activities generally accorded or made available to members of the college community. It does not discriminate against qualified persons on the basis of handicap, sex, race, color, national or ethnic origin in administration of its educational and admissions policies, financial affairs, employment programs, student life and services, or any other college-administered program.

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\*Accreditation documents may be viewed in the Office of the Vice President for Academic Administration.

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#### Preprofessional Curricula

Art Therapy  
Chiropractic  
Clinical Laboratory Science  
Communication Sciences & Disorders  
Cytotechnology  
Dental Hygiene  
Dentistry  
Health Information Administration  
Law  
Medical Radiography  
Medicine  
Nutrition & Dietetics  
Occupational Therapy  
Optometry  
Osteopathy  
Pharmacy  
Physical Therapy  
Physical Therapy Assisting  
Physician's Assistant  
Public Health  
Radiation Sciences  
Respiratory Care  
Veterinary Medicine

Pacific Union College, a distinctive Seventh-day Adventist college in the liberal arts tradition, is characterized by the intentional integration of faith and learning. As such, the College's curriculum is designed to provide its students with the type of essential learning outcomes that all students will need to both survive and thrive in the twenty-first century. The Association of American Colleges and Universities, the leading association concerned with the quality, vitality, and public standing of undergraduate liberal arts education, defines these essential learning outcomes:

- Knowledge of human cultures and the physical and natural world through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts, focused by engagement with big questions, both contemporary and enduring.

- Intellectual and practical skills, including inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, information literacy, teamwork and problem solving, practiced extensively across the curriculum in the context of progressively more challenging problems, projects, and standards for performance.



*Heather J. Knight*

- Personal and social responsibility, including civic knowledge and engagement – local and global, intercultural knowledge and competence, ethical reasoning and action, foundations and skills for lifelong learning, anchored through active involvement with diverse communities and real-world challenges.

- Integrative and applied learning, including synthesis and advanced accomplishment, across general and specialized studies demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems.\*

At PUC, however, all of these exciting essential learning outcomes are mediated through the teaching of caring and committed Christian professors who present their disciplines through the lens of faith. Furthermore, this profound intellectual and spiritual journey takes place in a magnificent natural environment designed to draw our students even closer to a loving Creator. So, welcome to Pacific Union College, a very special place that you will find to be “academically outstanding and spiritually authentic.

Let the learning begin!

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*\*Aim High and Make Excellence Inclusive*  
Strategic Plan, 2008-2012

Association of American Colleges and Universities, p. 3.



## 2012-2013

### Fall Quarter (2012)

W-Su	September	19-23	New Student Orientation
M		24	Instruction begins
M	October	1	Last day to enter or delete courses
W-S		10-13	Fall Revival
F	November	16	Thanksgiving recess begins (4:00 p.m.)
Su		25	Thanksgiving recess ends (10:00 p.m.)
M		26	Last day to withdraw from courses
M-Th	December	10-13	<b>Final examinations</b>

### Winter Quarter (2013)

Su	January	6	New Student Orientation
M		7	Instruction begins
M		14	Last day to enter or delete courses
M		21	Martin Luther King Day; no classes/labs
W-S		23-26	Winter Revival
F	February	8	Mid-quarter vacation; no classes/labs
M	March	4	Last day to withdraw from courses
M-Th		18-21	<b>Final examinations</b>

### Spring Quarter (2013)

Su	March	31	New Student Orientation
M	April	1	Instruction begins
M		8	Last day to enter or delete courses
T		9	2013-14 registration begins/Seniors
F-Su		19-21	Alumni Weekend
M		22	2013-14 registration begins/All students
M-S	May	6-11	Week of Prayer
M		27	Memorial Day; no classes/labs
T		28	Last day to withdraw from courses
M-Th	June	10-13	<b>Final examinations</b>
F-Su		14-16	<b>Commencement</b>

### Summer Quarter (2013)

M	June	17	Instruction begins
Th	July	4	Independence Day; no classes/labs
F	August	16	<b>End of Summer Quarter</b>

## 2013-2014

### Fall Quarter (2013)

W-Su	September	18-22	New Student Orientation
M		23	Instruction begins
M		30	Last day to enter or delete courses
W-S	October	9-12	Fall Revival
M	November	18	Last day to withdraw from courses
F		22	Thanksgiving recess begins (4:00 p.m.)
Su	December	1	Thanksgiving recess ends (10:00 p.m.)
M-Th	December	9-12	<b>Final examinations</b>

### Winter Quarter (2014)

Su	January	5	New Student Orientation
M		6	Instruction begins
M		13	Last day to enter or delete courses
M		20	Martin Luther King Day; no classes/labs
W-S		22-25	Winter Revival
F	February	7	Mid-quarter vacation; no classes/labs
M	March	3	Last day to withdraw from courses
M-Th		17-20	<b>Final examinations</b>

### Spring Quarter (2014)

Su	March	30	New Student Orientation
M		31	Instruction begins
M	April	7	Last day to enter or delete courses
T		8	2014-15 registration begins/Seniors
F-Su		18-20	Alumni Weekend
M		21	2014-15 registration begins/All students
M-S	May	5-10	Week of Prayer
M		26	Memorial Day observed; no classes/labs
T		27	Last day to withdraw from courses
M-Th	June	9-12	<b>Final examinations</b>
F-Su		13-15	<b>Commencement</b>

### Summer Quarter (2014)

M	June	16	Instruction begins
F	July	4	Independence Day; no classes/labs
F	August	15	<b>End of Summer Quarter</b>

## Using this Catalog

You should become acquainted with this catalog before you begin your studies at Pacific Union College and should consult it throughout your college career. It is an important resource which describes the policies you must follow and the requirements you must meet in order to achieve your academic goals.

You should use this catalog to find information regarding the academic program that you have selected. Even if you have not yet decided on a major, you should become familiar with the general education program and plan a schedule of courses based on its requirements. Though an academic advisor is provided to offer guidance and advice, *you have the ultimate responsibility for meeting the requirements of the program you choose.*

Every effort has been made to ensure that the information in this catalog is correct at the time of publication. Altered circumstances and policy changes, however, may affect the accuracy of the information it contains. Consequently, should any regulations or program requirements be in conflict with information in this catalog, current regulations and requirements govern.

The catalog presents only an overview of college policies and regulations. Other existing requirements are equally binding, though not published in this catalog.





## History

The Seventh-day Adventist Church has a heritage of strong commitment to education. Its members expressed this commitment during the late 1800s and early 1900s by establishing schools and colleges near major population centers across North America. In 1874 the Church founded its first college in Battle Creek, Michigan. A few years later the rapidly growing California church began looking for a good location for a school in Northern California.

In the vineyards of Healdsburg, fifteen miles north of Santa Rosa, the searchers found an ideal property. Total cost of the imposing brick structure and its furnishings, just off Healdsburg's main street, was thirty gold coins. The new school, to which Pacific Union College traces its roots, opened April 11, 1882, with two teachers and twenty-six students. In 1899, to reflect more accurately the school's purpose and its expanding curriculum, the school's name was changed to Healdsburg College; it became Pacific Union College in 1906.

When the Angwin Resort on Howell Mountain, above Napa Valley's St. Helena, became available, the College Board sensed the opportunity to secure more adequate space for the growing school and the associated businesses that had been established to provide student employment. They bought the buildings and land for \$60,000. On September 29, 1909, Pacific Union College was dedicated at its present Angwin site. The resort's hotel, bowling alleys, and cottages became dormitories, classrooms, and faculty homes. Students and faculty worked together building other structures, often using lumber harvested from college property.

## The Campus

Today the institution occupies a 200-acre main campus surrounded by approximately 1800 acres of college-owned agricultural and forested land. The school's estate includes 60 major structures as well as faculty homes, necessary utilities, and other buildings. Fifteen academic buildings house the library, classrooms, laboratories, and offices. West Hall, the oldest, dates from 1917. The newest, Chan Shun Hall, is a modern science complex, in use since 1986. It includes 55,000 square feet of classroom, laboratory, and office space. Four women's residence halls can accommodate approximately 700 students; three men's halls, approximately 600.

## The Area

The college is located on Rancho La Jota, whose title is based on an old Mexican land grant. It is surrounded by places of historic significance in the development of the American West: Sonoma, the northernmost Spanish mission in California and the scene of the Bear Flag Revolution; Fort Ross, the southernmost Russian outpost on the continent; Sutter's Fort and the California gold diggings; and the routes of early explorers, traders, and immigrant groups.

Howell Mountain, the school's site, is a junction point for the life zones of north and south, coast and interior, and is recognized as an unusually rich area for studying plant and animal life. About one hundred miles from the campus, at Albion in Mendocino County, the college owns fourteen acres where it operates the Albion Field Station. This primitive region, where the Albion River empties into the Pacific Ocean, presents unusual opportunities to study marine biology and botany.

The San Francisco, Oakland, and Sacramento International Airports are within a two-hour drive from the campus. Bus service from St. Helena to Napa, Berkeley, Oakland, San Francisco, and other cities brings the cultural opportunities of large urban communities within reach of the student body.

## **Institutional Student Learning Outcomes**

The outcomes for the Academic Program\* and for General Education\*\*, together with these Institutional Student Learning Outcomes, comprise a Christian liberal arts education at Pacific Union College.

*“Joyful is the person who finds wisdom, the one who gains understanding” —Proverbs 3:13*

➤ ***Wholeness***

PUC graduates will make mature, independent choices integrating the needs of body, mind, and spirit.

➤ ***Integrity***

PUC graduates will live lives based on the highest ethical standards.

➤ ***Service and Stewardship***

PUC graduates will practice the Biblical imperatives to serve humanity, resist injustice, and care for the created world.

➤ ***Diversity***

PUC graduates will value and learn from diversity.

➤ ***Our Adventist Heritage***

PUC graduates will understand and value the major tenets of Seventh-day Adventist Christian thought, including the blessing and significance of the Sabbath.

➤ ***Maintaining Lifelong Learning***

PUC graduates will continue to practice the intellectual skills and curiosity necessary to learn and grow creatively throughout life.



\* The Academic Program Student Learning Outcomes can be found online at <http://www.puc.edu/academics/degrees-programs>.

\*\* The General Education Student Learning Outcomes can be found in the section entitled “General Education” in this catalog.

Pacific Union College is a Christian liberal arts college sponsored by the Seventh-day Adventist Church. Its mission is to prepare its students for fellowship with God and service to Him through service to humanity. To achieve its mission, the college offers an excellent education, informed by a distinctive Seventh-day Adventist Christian point of view, to all who appreciate the school's unique values and its integration of faith and learning. Paying special attention to Christianity's role in civilization, the college considers liberal arts study with a Christian perspective to be uniquely valuable not only for its own sake, but also as a basis for career training and professional life.

*Pacific Union College is a Seventh-day Adventist learning community offering an excellent Christ-centered education that prepares its students for productive lives of useful human service and uncompromising personal integrity.*

## **Christian Liberal Education**

Liberal arts education with a Christian perspective prepares one to live in responsible human freedom. Such study promotes a balanced self-development. It frees one from the confines of personal experience and immediate interests and encourages entering with understanding into the experience of others. It advocates at once a tolerance of differing views, the respect those views deserve, and vigorous engagement with them. It fosters those lifelong habits of curiosity and serious inquiry that sustain the growth of the human spirit. It develops creative self-expression, including the ability to speak and write articulately. It provides breadth and flexibility for coping and adapting in a changing world.

## **The Major**

As an essential part of their liberal arts education, students choose majors for specialized study in harmony with their personal interests and as preparation for successful entry into their

chosen careers or into graduate study. The college regularly reviews all programs to maintain their quality and to ensure that they respond to current student demand and to the changing needs of the Church and the larger community.

## **General Education Core**

The structured general-education core gives scope of knowledge. The liberal arts emphasis in both the major and the general-education core promotes quality of understanding. The graduate should therefore have

a growing knowledge and an enlightened appreciation of the major areas and modes of learning. A personally appropriated Christian view of the origin and purpose of human life should give this knowledge coherence for each student.

## **Independent, Critical Thinking**

Beyond giving information, the disciplines of the liberal arts create the environment for students to develop their abilities to think analytically, critically, and independently. Students are challenged to find original solutions for a variety of problems. Such study teaches not only the different modes of inquiry and their valid uses, but also their limitations.

## **Faith and Learning**

In a church-related college, tensions may sometimes occur between the claims of a religious belief system and those of academic pursuits. But because faith without thought is not an acceptable alternative to thought without faith, such unresolved tensions should never force the sacrifice of one to protect the other. Ideally, they should energize creative study of the valid claims of both faith and learning and of their interrelationships. A foundation of knowledge and understanding strengthens faith.

## **The Mission of the College**

Because the challenge of resolving ambiguities and uncertainties often produces the most valuable new insights, such study should both preserve intellectual honesty and enhance a faith worth holding. Knowing truth does indeed bring freedom.

### **Responsible Freedom**

Students are urged through their total college experience to evaluate their own convictions and to infuse them with enduring cultural values and essential Christian principles. They are invited to recognize that changing times require a fresh statement of this heritage, but not its compromise. They are challenged to blend these timeless values and principles in a distinctive lifestyle that includes responding helpfully to human need, wherever encountered, in a natural expression of their own Christian calling. As Jesus showed, the finest incarnation of responsible freedom is in compassionate human service.

### **The Mission Realized**

The mission of the college is therefore partly realized when its students leave the campus well prepared for advanced study and for selfless service to humanity in productive careers marked by uncompromising personal integrity. The mission is more perfectly realized when these same students are set on their way free to approach their potential as persons restored in the image of God and as agents of His grace in the world.

## Orientation for New Students

Prior to fall quarter, the college provides an orientation program to acquaint new students with various aspects of campus life. Activities include a weekend retreat, familiarization with the use of campus facilities and services, and social gatherings to provide opportunity for becoming acquainted with other students and with faculty members.

Prior to winter and spring quarters, an orientation information session is held to acquaint new and transfer students with various aspects of campus life.

## Student Life

Pacific Union College is an independent, coeducational institution, operated in harmony with the beliefs, practices, and educational philosophy of the Seventh-day Adventist Church. In keeping with the special character of the college, you are encouraged to relate your academic study to your understanding of the Christian faith.

The college emphasizes the development of sound Christian character and makes a continuous effort to maintain an atmosphere that encourages commitment and growth in a personal relationship with Jesus Christ. Thus faith and learning combine to prepare you for a life of Christian service.

### College Standards for Student Conduct

In harmony with the purposes of the college, you are expected to consistently avoid all forms of personal conduct that are scholastically deleterious or spiritually or morally destructive. You are expected to refrain from the use of drugs, alcoholic beverages, tobacco, and improper sexual conduct, and to respect the facilities of the college and the property of others.

Applicants unwilling to pledge compliance with these standards will not knowingly be accepted or retained at Pacific Union College. If you find yourself out of harmony with these standards and social policies, or your conduct and attitude show evidence of a negative or noncooperative influence, you may expect dismissal from the college.

The Student Services Office publishes the *Student Handbook* ([www.puc.edu/studenthandbook/](http://www.puc.edu/studenthandbook/)), which presents in detail the standards of conduct referred to above. Application to and enrollment in the college are viewed as evidence that you have chosen to abide by the practices and regulations that appear in official college publications.

### Religious Life

In keeping with the special character of this Christian college, you are expected to attend a specified number of worship and vesper services, all of which are planned to stimulate growth and maturity in Christian living.

You may participate in a variety of other religious activities: small group meetings, cell groups, the Student Missionary program, short-term mission opportunities, off- and on-campus service groups, and retreats. These activities provide opportunities for you to be active in service to God and humanity.

### Cultural Activities

Cultural activities include a Fine Arts Series featuring guest artists and members of the music faculty in classical music concerts; the Heubach Lecture Series and the Longo Lecture series, each of which offers outstanding presentations by distinguished guest speakers; and Rasmussen Art Gallery exhibitions featuring guest artists, members of the art faculty, and student art work. These events are provided to the campus and surrounding community free of charge.

# Student Life and Services

## Recreational Facilities

College recreational facilities include a lounge and game room in the Campus Center (Dining Commons, first floor); a gymnasium with three full-size basketball courts where basketball, volleyball, futsal and badminton are available; a fitness center with cardio machines and weight rooms containing free weights and weight machines; an Olympic-size swimming pool; lighted outdoor tennis courts; and athletic fields for softball, soccer, volleyball, flagball, and running track. Recreational areas near the college offer skiing, golfing, scuba diving, and boating.

## Student Association

Every student enrolled for a minimum of six quarter hours is automatically a voting member of the Student Association. The Association is responsible for promoting and conveying the ideals and objectives of the college and coordinates a number of social and religious activities and other services on campus. These include producing the campus newspaper (*Campus Chronicle*), the student-faculty directory (*Funnybook*), the yearbook (*Dio-genes Lantern*), and the video yearbook.

The main purpose of the Student Association is to serve as a liaison with college administrators. The SA Senate is an additional forum for addressing relevant campus issues.

You are invited and encouraged to participate in the various opportunities the Association provides for activities and leadership. A detailed description of the organization of the Student Association appears in the Association's Constitution and By-laws.

## Student Housing and Dining

As a Pacific Union College student, you must register your housing in the Student Services Office. Housing policies also apply if you are enrolled in summer sessions or working full or part time on campus during summer sessions.

### Residence Halls

Pacific Union College affirms the values to be gained from being primarily a residential college. If you are an unmarried student age 22 or younger who accepts admission to the college, you agree to live in a residence hall—unless you apply for and are granted an exception.

Residence halls are available to students currently enrolled at Pacific Union College who meet eligibility requirements. If you are age 24 or older you may live in a residence hall on a “space-available” basis upon application.

## Off-Campus Housing

If you are an unmarried student in good standing, your request for off-campus housing may be approved if you are:

1. age 23 or older,
2. age 22 and will be turning 23 during the current academic year,
3. a fifth-year senior (Student Missionary and Taskforce years may count as one year),
4. a holder of an earned bachelor's degree,
5. a single parent,
6. divorced or widowed,
7. living with parents or other immediate relatives (grandparents, aunts, uncles, siblings at least 25 years old) in their primary residence,
8. a student with significant financial need and are offered room and board at substantial savings (you are required to live in the host family's home), or
9. a part-time student enrolled for six or fewer credits.

Requests for off-campus housing are considered and acted upon annually. You should secure approval before signing a lease for off-campus housing. Unmarried community students are not to live in “coed” groups.

## Dining

Bon Appétit at PUC Café provides a selective menu and a variety of services to satisfy the needs and tastes of a cosmopolitan campus community. The college provides a lacto-ovo-vegetarian and vegan menu on the à la carte plan. If you have any special dietary needs, you should visit the General Manager.

If you live in a residence hall, you are expected to take your meals in the PUC Café and are charged a minimum fee each quarter. For further information, see the section entitled “Financial Information” in this catalog.

Bon Appétit caters for small-group activities, picnics, and banquets. Small groups and organizations may reserve four auxiliary dining rooms in the Dining Commons (all food is to be prepared by Bon Appétit). Reservations are made at the Bon Appétit office.

## Health Services

Health Services is a health care provider offering a wide range of services to the campus population. Health Services offers direct medical care for common medical conditions and referrals to outside medical providers/specialists when needed. For additional information, please refer to the web site located at [www.puc.edu/healthservices](http://www.puc.edu/healthservices).

### Teaching and Learning Center

The Teaching and Learning Center (TLC) is dedicated to helping you transition from high school to college. The Center also provides a variety of academic support services to help you develop your abilities for a successful college experience. The TLC services include free tutoring and mentoring; opportunities to develop note-taking skills, study skills, and other effective learning strategies; programs to enhance student persistence; accommodations for learning disabilities; coordination of student veteran services; and academic advising for undeclared students.

#### Disability Support Services

Pacific Union College complies with Section 504 of the 1973 Rehabilitation Act, the Americans with Disabilities Act of 1990, and the applicable state and local regulations regarding students with disabilities. The college is committed to promoting and achieving equitable learning opportunities and participation for students with documented disabilities.

The Disabilities Coordinator at the Teaching and Learning Center organizes the support services for students with documented disabilities. It is your responsibility to provide current documentation (no more than three years old) of your disability.

If you have formal documentation of a disability and are enrolled at Pacific Union College, you are responsible for notifying the Disabilities Coordinator for academic accommodations. You are not eligible to receive disability accommodations from the college if you self-prescribe your condition, do not provide valid disability documentation, or have not requested accommodations.

#### Student Veteran Services

As a Yellow-Ribbon school, Pacific Union College welcomes student veterans as they enter or return to college.

The Veterans Services Coordinator at the Teaching and Learning Center provides college orientation, advocacy, and problem-solving strategies for student veterans' unique needs. If you are a student veteran, you are encouraged to contact the Veterans Services Coordinator so that you may learn about the resources available to you.

A Student Veterans' Club is available to support student veterans and their families. The club focuses on social activities, community service, and educating the community about veteran needs and services. Additionally, a Veteran and Family Support Group is available to assist in the transition to Pacific Union College and refer participants to community and veteran resources.

Information regarding credit for military training and GI Bill benefits may be found in the sections of this catalog entitled "Academic Information" and "Financial Information".

### Career and Counseling Center

The Career and Counseling Center is an important resource for personal and academic success. You may schedule appointments for personal and career counseling. Referral service to other professionals in the immediate vicinity is also available through the Center.

The Career and Counseling Center provides the following services:

#### Counseling Services

Professional, confidential support is available on an individual, couple, family or group basis. Counselors want to help you deal with any anxiety, depression, stress, situational difficulties, or other personal problems that might interfere with your academic performance or seriously compromise your quality of life.

#### Testing Services

The Career and Counseling Center is an official non-Saturday test site for college and graduate school admissions. Test application forms, national testing dates and deadlines are available.

Additionally, the center coordinates CLEP and DSST examinations and other institution-based examinations.

#### Career Services

Career testing and personality testing are available through the Career and Counseling Center. Career counseling is also available so that you may explore career options, self-assessment, skills, interests, values, goals, and job-seeking strategies. Additionally, the Center offers assistance in writing résumés, application letters, and developing effective interview skills.

#### Internship and Graduate School Exploration

The Career and Counseling Center coordinates on-campus resources for internship and graduate school exploration. Representatives from professional schools, businesses, industries, technological firms, human services, educational organizations, and government agencies visit Pacific Union College to attend campus events and recruit students. Interviews are conducted on campus, usually in the Career and Counseling Center.

### Technology Resources

It is your responsibility to be aware of usage policies on campus prior to using the technology resources that are provided by the college. For policies and additional information, please refer to the web site located at [www.puc.edu/campus-services/itss/current-students](http://www.puc.edu/campus-services/itss/current-students).

### Telephone Information

One telephone line is provided in each residence hall room for on-campus calling. You are to provide your own telephone—either touch-tone or pulse. Optional local calling and direct-dial long distance calling are available through the Telecommunications Department located in ITSS. These services operate on a prepaid system that is accessed via a Personal Security Code (PSC) given to you upon request.

To arrange for off-campus telephone service, you request and obtain your PSC from the Telecommunications Department and, at the Cashier's Office, make a deposit of \$5.00 or more on your PSC account. When the deposit is exhausted, local and long-distance calls are discontinued until you make a further deposit. You are not charged for calls to toll-free numbers (such as calling card numbers), but a PSC with a credit balance is required to place the call.

Telephone service does not permit you to accept collect calls or order any “outside” telephone service that is billed to your dorm room telephone number. If you do accept a collect call, you must pay for the call plus a \$500.00 per-call service charge. Also, local telephone company features, such as “Call Waiting”, “Caller ID”, etc., are not compatible with college telephone equipment. Any damage or misuse of the telephone system or equipment will result in a \$500.00 fee per violation.

Billing for collect calls and/or inappropriate telephone behavior will be added to your college account.

### Computer Resources

The computing resources provided by Pacific Union College are to be used for academic purposes, although incidental and occasional personal use of the internet is permitted. Since your internet usage can be accessed by Pacific Union College personnel without prior notice, you should not use the system in any way that you would not want to be published.

It is prohibited to use these systems for soliciting or advertising for commercial ventures, religious or personal causes, or outside organizations, or other similar nonacademic solicitations.

Any downloading, distributing, copying, or sharing of copyrighted or proprietary material is illegal without the written authorization of the owner of the rights (17USC 204(a)). If you are sharing, downloading, or receiving copyrighted materials such as music, video, television programs, or software without written authorization of the owner of the rights, you must immediately stop in order to avoid legal penalties including fines of thousands of dollars from the RIAA and MPAA. Please note that downloading copyrighted materials is not anonymous and your computer can be identified.

Pacific Union College reserves the right to access and disclose all records of internet usage sent over its system as necessary. If the college discovers that you are misusing the network, you may be subject to disciplinary action, including, but not limited to, termination of computer privileges.

### Library Services

The W. E. Nelson Memorial Library provides the information resources and technology for the research needs of students and faculty. Library holdings include over 150,000 books and more than 57,000 DVDs, CDs, music scores, and other media material. The library subscribes to over 33,000 electronic journals and 639 print periodicals. The Heritage Room in the library houses the Pitcairn Islands Study Center, one of the world's largest collections of material about the Pitcairn Islands, as well as the College Archives, the Maxwell Collection, the Walter Utt Collection, the Veltman Collection, and several other collections from individuals who have played prominent roles in the Seventh-day Adventist Church and/or Pacific Union College.

### Family Rights and Privacy Act (FERPA)

In maintaining student records, Pacific Union College complies with the Family Educational Rights and Privacy Act of 1974 (FERPA). This act affords students certain rights with respect to their education records. For a full description of these rights, see “Appendix B: Student Rights Under FERPA” in this catalog.

### Grievance Policies and Procedures

The college has developed grievance policies and procedures to ensure that members of its constituent groups are not being treated in an unjust, unethical, or discriminatory manner. Statements detailing these policies and procedures are in the *Student Handbook*.



Pacific Union College will accept your application for admission regardless of your race, age, sex, or national origin so long as your attitude and behavior are in harmony with the goals and traditions of this Seventh-day Adventist college and your abilities and preparation indicate the probability of academic success.

Although church affiliation is not required for admission, you are expected to abide by the policies outlined in this catalog and the *Student Handbook*. To qualify for admission, you must give evidence of intellectual competence, high moral character, satisfactory health, and a genuine desire to learn.

## Application Procedures

1. Apply online at [www.puc.edu/enrollment](http://www.puc.edu/enrollment). There is no fee for online applications.
2. Alternative to applying online:  
Send a completed Pacific Union College Application for Admissions (available from the Admissions Office) along with a \$30 nonrefundable application fee to the Admissions Office.
3. Request that transcripts be sent directly to the Pacific Union College Admissions Office from:
  - a) the academy or high school from which you graduated; and
  - b) all colleges you previously attended.Applicants are responsible for the transfer of transcripts of all high-school and college work attempted. Anyone who willfully refrains from transferring all scholastic records, or does not give full and truthful information concerning previous attendance at other educational institutions, will not knowingly be accepted or retained as a student. The transcripts become the property of the college and are kept on permanent file. The unweighted cumulative GPA from the graduating high school and each college attended is recorded in the application file.
4. Take the required college entrance examination and be sure that scores are on file in the Admissions Office. Pacific Union College participates in the American College Testing Program (ACT) as an essential element in academic advising. Each first-year and transfer applicant with fewer than 45 quarter credits must provide ACT (or SAT) scores. Applicants who may be accepted on academic probation must submit the required examination scores before they will be reviewed for admission. *If you qualify for regular admission, you may be accepted without these test scores, but you must take the test before you attend your first courses.*
5. Submit the necessary references:
  - a) This requirement is automatically met if you apply directly from a constituent Seventh-day Adventist academy in the Pacific Union.
  - b) Bachelor of Science in Nursing students need to provide the references required as part of their application to the nursing program.
  - c) All others applicants must have one completed reference form sent to the Admissions Office (the form is available online at [www.puc.edu/enrollment](http://www.puc.edu/enrollment)).
6. International applicants must meet the additional requirements detailed in the following sections of this catalog: “Admission of International Students” under ADMISSION and “International Students” under FINANCIAL INFORMATION.
7. Wait for a decision letter. When all pertinent documents are on file (application form, transcripts, and recommendation), the application will be processed and you will promptly be notified in writing of the action taken.

*No student should at any time come to the college for the purpose of registering without having first received a formal notification of acceptance.*

# Admission

## Acceptance Follow-Up Procedures

The letter of acceptance outlines further steps necessary before registration:

1. If you will be a residence hall student, complete the room reservation form and send it, together with a \$150 room reservation fee, to the Admissions Office. Alternatively, fill out the form and pay the fee online at [www.puc.edu/residencehallreservation](http://www.puc.edu/residencehallreservation).  
The room reservation fee is refundable if your notice of cancellation is received by September 1. No refunds are made for cancellations after September 1 or for failure to appear for registration.
2. The college's Health Services Department is required to have on file basic medical information to meet county requirements. The minimum information necessary is:
  - a) Current personal and family medical history
  - b) Recent physical examination including TB testing
  - c) Childhood immunization recordsForms can be downloaded at [www.puc.edu/healthservices](http://www.puc.edu/healthservices).

## Reapplication Procedures

1. If your residence as a student at Pacific Union College has been broken for three or more consecutive quarters, you must follow regular application procedures in order to re-establish student status.
2. If your residence as a student at Pacific Union College has been broken for less than three consecutive quarters, you may contact the Admissions Office to have your original application updated and re-activated.

## Academic Preparation

Applicants to Pacific Union College need to be prepared to participate in a rigorous academic program. It is strongly recommended that you complete the following courses as part of your secondary-school education. Students who have not successfully completed these courses during secondary school may be required to take additional courses in college.

- 4 years of English
- 3 years of Mathematics, including Algebra II and Geometry
- 3 years of Science, including laboratory sciences in the areas of Biology, Chemistry and Physics
- 2 years of History, including U.S. and World History
- 2 years of Foreign Language
- Computer Literacy
- Religion coursework, if offered at your secondary school

## Regular Admission Status

You may have regular admission status if you have an acceptable recommendation and qualify in one of the following categories:

1. **Students having secondary-school graduation**  
Demonstrate an unweighted GPA of at least 2.3 (C+) in the following required courses:
  - 4 years of English
  - 2 years of History
  - 2 years of Science
  - 2 years of Mathematics, including Algebra
2. **Students who have passed the GED**  
Demonstrate a standard score of at least 400 on each of the five tests and an average standard score of at least 500 for all five tests for the Test of General Educational Development (GED).
3. **Students who have passed the CHSPE**  
Demonstrate a passing score on the California High School Proficiency Examination (CHSPE) *and* Demonstrate the following additional requirements:
  - a) Successful completion of at least two years of secondary school.
  - b) A personal interview of applicant and parents by a college admissions officer or a designated representative.
  - c) A letter from the applicant stating the rationale for early entrance into college.
  - d) Recommendation by the faculty of the secondary school last attended, including an evaluation of social and academic readiness for college.
4. **Home school applicants**  
Contact the Admissions Office and discuss the individual situation. Home school applicants should anticipate providing ACT or SAT scores plus transcripts or GED scores, or other evidence of secondary school completion.
5. **Transfer students (Less than 45 quarter hours)**  
Demonstrate a minimum cumulative college GPA of 2.0 *and* Demonstrate one of the admissions standards for first-year freshmen as described above (option 1, 2, 3, or 4).
6. **Transfer students (45 or more quarter hours)**  
Demonstrate at least 45 quarter hours of transferable college credit with a minimum cumulative college GPA of 2.0.
7. **Reapplicants**  
Demonstrate both a minimum college cumulative GPA and a Pacific Union College cumulative GPA of 2.0 *and* Demonstrate an acceptable citizenship record.

## Other Types of Admission

In addition to admission on regular academic standing, there are other types of admission at Pacific Union College.

### Admission by Advanced Enrollment

Advanced Enrollment status is for secondary-school students of superior ability who wish to enroll in some college courses while completing secondary-school graduation requirements. For admission to this status, you must meet the following criteria:

1. Completion of your sophomore year of secondary-school with an unweighted GPA of at least 3.5.
2. Recommendation from the secondary-school faculty supporting your ability to benefit from early college enrollment and specifying your remaining requirements for graduation and the method of fulfilling them.
3. Written rationale for early entrance into the college program and evidence of superior motivation.

Students in this category are granted regular admission, subject to secondary-school graduation.

### Admission of International Students

If you are an international student, you will be considered for admission when you have:

1. met all requirements for regular admission status;
2. provided certified English translations of transcripts;
3. provided the required reference, written in English;
4. met all financial requirements for international students, including the submission of a \$1,000 deposit, as described in the section of this catalog entitled “International Students” under FINANCIAL INFORMATION; and
5. demonstrated ability to pursue studies in the English language by presenting a satisfactory score on one of the following exams:

*Minimum score of 70*

TOEFL (Test of English as a Foreign Language), Internet Based

*Minimum score of 14*

ACT, English Section

*Minimum score of 360*

SAT, Critical Reading Section

*Minimum score of 5.5*

IELTS (International English Language Testing System), Academic Version

*Minimum score of 48*

PTE (Pearson Test of English), Academic Version

### Admission on First Quarter Academic Probation

You may be considered for admission on first quarter academic probation status if you have an acceptable recommendation, you have submitted ACT or SAT scores for review, and you qualify in one of the following categories:

#### 1. *Students having secondary-school graduation*

Applicants who demonstrate an unweighted GPA of at least 2.0 but less than 2.3 in the following required courses:

- 4 years of English
- 2 years of History
- 2 years of Science
- 2 years of Mathematics, including Algebra

#### 2. *Students who have passed the GED*

Applicants who demonstrate a score of at least 350 on each of the five tests and an average standard score of at least 450 for all five tests for the Test of General Educational Development (GED).

#### 3. *Transfer students*

Applicants who are granted admission by special action of the Admissions Committee even though they demonstrate a college cumulative GPA below 2.0.

If you are admitted on academic probation, you may take up to 15 hours each quarter, including any required remedial courses, until you achieve regular enrollment status. For further information regarding Academic Probation, see the section entitled “Academic Information and Policies” in this catalog.

### Readmission from Academic Suspension or Dismissal

If you previously attended Pacific Union College and you were placed on academic suspension or dismissal, you may apply for readmission after you complete the appropriate amount of transferable coursework at another accredited college of university for which you earned a cumulative GPA of at least 2.25. In order to reapply, you will need to request that transcripts be sent directly to the Pacific Union College Admissions Office from all institutions that you attended while on suspension or dismissal.

If you are readmitted to Pacific Union College following academic suspension or dismissal, your admission status will be provisional and your academic performance will be evaluated after each subsequent quarter. Failure to meet the academic requirements outlined at the time of your readmission will result in your dismissal.

For further information regarding academic suspension and dismissal, see the section entitled “Academic Information and Policies” in this catalog.

### **Admission as a Non-Degree Student**

If you wish to take one or more courses through Pacific Union College without being admitted as a degree-seeking student, you may apply for admission as a non-degree student by completing the “Short Application” (available in the Enrollment Office). It is recommended that you apply at least one month prior to the beginning of the quarter for which you expect to register at Pacific Union College.

If you are accepted as a non-degree student, enrollment in any particular course is subject to the approval of the instructor and to your meeting any course prerequisites. As a non-degree student, you will be required to register through the Records Office and ordinarily will be limited to a maximum of six quarter hours at any one time. Most non-degree students do not qualify for financial aid.

If you are currently on suspension or dismissal from Pacific Union College, you do not qualify to apply for admission as a non-degree student.

There are three standard categories of non-degree students accepted at Pacific Union College:

1. ***Guest Student for Transfer Credit:***

A student who has been accepted for study in another college or university and wishes to earn credit at Pacific Union College for transfer.

2. ***Special Summer Student***

A student who wishes to attend Pacific Union College but does not meet the requirements for regular admission. Admission on this status is limited to the summer term. After completion of the summer term, the student may apply for regular admission and the summer credit will be included in the calculation of college credit for admissions requirements.

3. ***Personal Enrichment***

A student who wishes to take individual courses at Pacific Union College for personal or professional development.

Changes in academic policies made and announced during the school year have the same force as if they were published in this catalog. Policies may not be waived or amended except by petition to and approval by the Academic Standards and General Education Committee. If you wish to petition for an exception to an academic policy, complete a Special Request form (available at the Records Office), ask the appropriate department chair to endorse your request, and return it to the Records Office.

## Registration and Enrollment

You are expected to register online through Web Advisor (accessible from the college web site) for all your courses during the registration periods as announced in this catalog.

### Financial Clearance

A financial restriction is placed on each student's registration account 30 days prior to the start of each quarter. During this period, students are required to obtain financial clearance from the Student Financial Services Office. For further information, see the section entitled "Financial Information" in this catalog. *If, at the end of the second day of courses, you have not received financial clearance, your registration will be cancelled and your reserved spot in your courses will no longer be guaranteed.* After clearing finances, you may re-register for any available courses until the last day to add courses.

If complications delay your financial clearance until after the last day to add courses, you may submit a petition for "Late Registration due to Financial Reasons" to the Records Office during the second week of the quarter. You must obtain financial clearance and submit your petition no later than the end of the second week of the quarter. *You may not under any conditions continue attending any courses or living in a dormitory after the second week of the quarter unless you have received financial clearance.*

### Changes in Registration

To avoid changes in registration, you should plan your program carefully. You may add courses or withdraw from them before the published deadlines. *You are responsible for checking your official schedule to make sure that it is correct.*

### Late Registration

You must complete registration for each quarter by the last day to add courses (one week after instruction begins).

You may not register for a course after the last day to add courses except by petition to and approval by the Academic Standards and General Education Committee. To petition for late registration for a course, you may complete a Late Add Request form (available at the Records Office). If your petition is approved, you will be charged a late registration fee of \$25 cash payable at the Records Office or \$35 charged to your account.

Even if emergency circumstances make it impossible to complete your registration for a particular course as described above, *you may not under any conditions continue attending a course after the fifth week of the quarter unless you are officially enrolled.* No grade is issued or recorded on the transcript, or credit awarded, for any course for which you are not officially enrolled by the end of the fifth week of the quarter. (For summer quarter and other courses scheduled for durations other than the standard ten-week quarter, this policy applies with the phrase "fifth week of the quarter" replaced by the phrase "midpoint of the quarter.")

### Prerequisites

You must complete all prerequisites prior to taking a course. Exceptions may be made only by the permission of the instructor. Prerequisites are indicated in the course description.

### Corequisites

You must take all required corequisites concurrently with a course. Exceptions may be made only by the permission of the instructor. Corequisites are indicated in the course description.

# Academic Information and Policies

## Restriction on Lower-Level Courses

You may not take lower-level courses after you have earned credit in a more advanced course in the same area, as identified by the academic department.

## Class Attendance

You are responsible for all material and assignments presented in class, and you are expected to maintain regular attendance at all class sessions of the courses in which you are enrolled. While there is no general college attendance requirement, each instructor has the right to establish specific policies best suited to a given course.

Absences that result from short-term suspensions due to violations of the principles outlined in the Student Life Agreement will be treated as unexcused absences, and significant academic penalties may apply as a result of such unexcused absences.

## Audited Courses

If you wish to attend a course but do not wish to complete all regular assignments, you may, with the consent of the instructor, register on an audit basis. Applications to change registration from “Audit” to “Credit” or from “Credit” to “Audit” are not approved after the end of the first week of the quarter. Fees for audited courses are charged at half the regular tuition rate, except for private music lessons, ensembles, and other participation-type courses, which are charged at the full tuition rate. On the transcript, audited courses carry the notation “AU.”

## Midterm Grades

Midterm grades of C- or below are posted on WebAdvisor at the mid-point of each term. These grades are used for advisory purposes and are not included on the official record.

## Withdrawal from Courses

You may withdraw from a course through WebAdvisor any time before the last day to withdraw. On the transcript, withdrawn courses carry the notation “W”. A course from which you withdraw before the last day to delete courses (one week after instruction begins) will not appear on your transcript.

If withdrawal from a course will result in a credit load of less than 12 credit hours, consult with your financial counselor prior to withdrawing in order to determine how your financial package will be affected. International students should not drop below 12 credit hours without consulting with the international student advisor in the Student Services Office.

You may not withdraw from a course after the last day to withdraw except by petition to and approval by the Academic

Standards and General Education Committee. To petition for late withdrawal from a course, you may complete a Late Withdraw Request form (available at the Records Office).

## Withdrawal from the College

To withdraw from the college, complete a Notice of Withdrawal form (available at the Records Office). The completed form must be signed by your residence-hall dean or the vice president for student services, your financial counselor, and the retention coordinator. Withdrawal is official when the form with the signatures has been submitted to the Records Office.

The date of official withdrawal from the college will appear on your transcript. *If you choose to withdraw after the eighth week of the quarter, a grade of “F” will be recorded for all courses in which you are registered.*

## Course Load

The academic course load is described in terms of quarter hours (credits/units). One quarter hour represents one hour of class per week throughout the academic quarter or the equivalent for a non-lecture course. (See also “Credit Hours”.)

If you have regular academic standing, a full course load is 12-17.5 quarter hours per regular quarter and a half course load is 6-11.5 quarter hours per regular quarter. During the summer session, a full course load is 9-12 quarter hours.

To enroll for a course load in excess of 17.5 quarter hours, you must complete a Request for Overload form (available at the Records Office) and obtain the approval of your academic advisor and the registrar. There is an extra charge per credit hour for overloads. For further information, see the section entitled “Financial Information” in this catalog.

If you are on Academic Probation, your maximum course load is reduced to 15 quarter hours during the school year and 9 during the summer session.

## Study-Work Program

If you are employed either on or off campus, you are expected to adjust your course load in harmony with the following schedule to achieve a reasonable balance in study and work:

<i>Course Load</i>	<i>Maximum Work Load</i>
16 quarter hours	16 hours per week
14 quarter hours	20 hours per week
12 quarter hours	26 hours per week
10 quarter hours	32 hours per week

If you have a record of average scholastic achievement, you should plan a study-work program involving less than the maximum labor load suggested. It is recommended that you work

with your advisor to determine an appropriate work load for your individual situation.

### **Cancellation of Scheduled Courses**

The college administration, in consultation with the respective department chair, reserves the right to cancel any course listed in the course schedule if enrollment is four students or fewer or if a qualified instructor is not available because of unavoidable changes in personnel.

### **Ownership of Written Work and Classroom Materials**

Written work you present in fulfillment of course requirements becomes the property of the college. The instructor or the college, however, may not publish the written work for any reason without your permission. The original copy is returned to you at the discretion of the instructor. When it is not returned, you have the right to request and be given a copy of work turned in. You should request a copy not later than the end of the quarter following that during which you took the course.

### **Use of Classroom Materials**

Federal and state privacy and intellectual property laws, including the Copyright Protection Act of 1976, prohibit students or other persons from publishing, publicizing, or selling classroom materials, including lecture notes or audio/visual recordings of lectures, without permission. This would include disseminating such materials over the internet.

Pacific Union College and its faculty reserve the right to take any available legal action under federal and state law against any person publishing, publicizing, or selling such materials without permission. In addition, Pacific Union College and its faculty reserve the right to take any available legal action under federal and state law against any person using such materials in a way that would be highly offensive to a reasonable person and gives a false impression about the college or its employees or constituents.

### **Final Examinations**

No off-campus field trips, major examinations, or extracurricular activities requiring student participation may be scheduled during the week prior to the first day of final examinations (“dead week”) in order that you may devote full time to completing course projects and preparing for final examinations. Ex-

ceptions are made for laboratory courses and for those courses meeting once a week only and for which there is no contact during the normal final exam week. Additional exceptions include take-home exams, skills tests in activity courses, and quizzes.

You must take the final examination in each course in which you are enrolled at the time listed in the official examination schedule or you will receive the grade earned without the final examination. All travel, work, medical appointments and other plans must be arranged early to avoid an examination conflict. Exceptions to the schedule will be granted by the academic dean for the following circumstances:

1. A death in the immediate family;
2. A documented medical emergency demanding immediate attention; or
3. An examination schedule with four examinations in one day or three consecutive examinations in one day (a request for an examination schedule change must be filed with the academic dean before the end of the ninth week of the quarter).

*You should expect no other exceptions to the published schedule unless you can provide proof to the academic dean of an emergency situation beyond your control.* If exceptions are granted for other reasons, you will be charged a fee of \$100 for each rescheduled examination.

### **Academic Integrity**

Academic integrity is highly valued and is expected. Academic dishonesty is an extremely serious offense and is cause for disciplinary action. *Students involved in cheating, plagiarizing, fabrication, multiple submissions, abuse of academic materials, deception, misrepresentation, electronic dishonesty, and other types of academic dishonesty, including production of materials for other students, are ordinarily subject to dismissal from the course with a failing grade.*

Situations involving academic dishonesty are dealt with by the instructor of the course in consultation with the department chair. A record of any verified instance of dishonesty is forwarded to the academic dean and is kept in the student’s personal file. Whenever such filing occurs, the student involved is notified. Established appeal and grievance procedures provide the student with the opportunity to respond to the situation. A pattern of serious or habitual dishonesty is dealt with by the academic dean and may result in failing grades or dismissal from the college. (For further details, see “Appendix A: Code of Academic Integrity” in this catalog.)

# Academic Information and Policies

## Grading System

Final grades are posted on WebAdvisor at the end of the quarter. Once grades have been posted, grade changes are permitted only if it can be established that a clerical error was made, resulting in an inaccurate grade submission on your official record.

To raise a grade once it has been recorded, you must repeat the course at Pacific Union College. *Late work is not accepted after the end of the term.*

### Grades

Grades are recorded by letters and are assigned point values as follows:

A	4.0	C	2.0	AU	Not computed
A-	3.7	C-	1.7	I	Not computed
B+	3.3	D+	1.3	IP	Not computed
B	3.0	D	1.0	NR	Not computed
B-	2.7	D-	0.7	S	Not computed
C+	2.3	F	0.0	W	Not computed

### Grade Point Average (GPA)

The GPA is computed by dividing the total number of points earned by the total number of hours attempted. Grades earned for remedial coursework are not included in the GPA.

### Audit

The grade “AU” is assigned to a course taken on an audit basis. A course for which you register for audit but do not attend regularly is assigned a “W.”

### Incomplete

A grade of “I” is assigned in exceptional situations when unavoidable circumstances prevent completion of a course.

If you are granted a grade of “I”, you must complete the missing coursework by the time your instructor specifies, but no later than six calendar weeks from the beginning of the following quarter. An “I” not completed before this deadline reverts to a grade of “F” unless the instructor submits a different grade computed without the missing coursework.

When the final grade is recorded, it will appear on your transcript behind the notation “I” to indicate that the grade was originally incomplete. The grade will be computed in the GPA in the same way as a standard letter grade.

### In Progress

The “IP” grade is available when the requirements of a course extend beyond the quarter for which you are registered. For such courses, the course description notes that the course “Qualifies

for IP grading”. If you are granted a grade of “IP”, you must complete the missing coursework by the time your instructor specifies, but no later than one calendar year from the end of the quarter (one quarter for all AVIA courses).

### Not Reported

The grade “NR” is administratively assigned to a course for which the instructor does not report a grade. An “NR” not removed by the end of the second week of the following quarter becomes an “F.”

### Satisfactory

A grade of “S” signifies that you earned the equivalent of “C-” or higher for a course graded on a Satisfactory/Fail (S/F) basis. The “S” grade is used only when a course is “Graded S/F” as specified in the course description.

### Withdrawal

A grade of “W” is assigned to a course from which you officially withdraw between the beginning of the second week and the end of the eighth week. You may not withdraw from a course after the eighth week.

### Repeating Courses to Improve the Grade

The following regulations govern course repeats to improve the grade:

1. If you wish to repeat a course to improve the grade, *you must repeat the course in residence at Pacific Union College in order for your GPA to be recomputed.*
2. If you take a course at Pacific Union College and then repeat the course in residence in order to improve the grade, *both instances of the course with grades will still appear on your official Pacific Union College transcript.* However, the course with the lower grade will be marked clearly as a repeated course on the transcript, and only the course with the higher grade is included in the grade-point calculation and the total credits earned.
3. If you transfer a course and then repeat the course while in residence to improve the grade, the transfer course will no longer apply at Pacific Union College.
4. You may repeat a course only if you have not taken a more advanced course in the same subject.
5. If you earned an unsatisfactory grade in a course required for your program and you have taken a more advanced course in the same subject, you may, on the advice of your major advisor, take another course in the same general area to meet graduation requirements.



### Academic Credit

Pacific Union College operates on the quarter system. The standard quarter is 11 weeks in length, with 10 weeks of course sessions and 1 week of final examinations. One quarter credit normally represents one fifty-minute class per week throughout an academic quarter and approximately two hours of preparation for each fifty-minute session. One laboratory period of approximately three hours is considered equal in credit value to one lecture/discussion period and the expected preparation.

When evaluating credit, Pacific Union College considers 1 semester credit to be equivalent to 1.5 quarter credits.

### Armed Forces Credit

Although “blanket” credit is not awarded for military service, some training courses provided by the armed forces may be the equivalent of college courses. Pacific Union College awards credit for military training in accordance with the American Council on Education’s *Guide to the Evaluation of Education Experiences in the Armed Services*.

### Transfer Credit

If you have attended other institutions of higher education, you must provide complete official transcripts from each college or university attended, even where you earned no credit. Such transcripts should be filed before you register for the quarter following the completion of the work. This policy applies also if you are regularly enrolled at Pacific Union College but take summer work, correspondence, or other work elsewhere.

Transcripts from institutions accredited by regional accrediting associations are evaluated to allow equivalent courses from the transfer institution to satisfy specific course requirements at Pacific Union College. Transfer credit is accepted only for courses with a grade of C- or higher. The college reserves the right to require repetition of courses that have become outdated.

There is no limit on the number of credits that you may transfer from a recognized junior (two-year) colleges. However, to earn the baccalaureate degree, you must complete a minimum of 84 credits total (including 60 upper-division credits) through recognized senior (four-year) colleges or universities. Upper-division credit is not allowed for junior college courses or for courses numbered as lower-division credit at another college.

Credit is allowed for college course work completed before secondary-school graduation if such work has been taken in a regionally-accredited college and is shown by transcript as college credit.

If you have transcripts from an institution without regional accreditation, you may request a transcript evaluation after you

have completed a minimum of 16 quarter hours in residence at Pacific Union College with a GPA of at least 2.0. The transcript from the unaccredited institution will be analyzed on a course-by-course basis; occasionally credit is established for those courses that appropriately apply to your program at Pacific Union College. *In most instances you will be asked to validate courses taken at an institution without regional accreditation by passing challenge examinations before credit will be granted.*

Pacific Union College reserves the right to accept or reject credit earned at other institutions. Prior to taking courses at other institutions, you should obtain approval from the Records Office at Pacific Union College in order to ensure that the credit will be accepted. Pacific Union College normally accepts a maximum of 18 semester hours per semester or 18 quarter hours per quarter for all transfer credit for both traditional and non-traditional students. Any exception to this policy must be approved by the appropriate department chair and by the registrar.

Pacific Union College is regionally accredited. However, other institutions reserve the right to accept or reject credit earned at Pacific Union College. Prior to taking courses at Pacific Union College for the purpose of transferring credit to another institution, you should obtain approval from the other institution in order to ensure that the credit will be accepted.

### Repeating Courses for Duplicate Credit

In general, courses may not be repeated for duplicate credit. However, some courses have been determined to be repeatable for credit due to the nature of the material covered. If a course is repeatable for credit, this information will be indicated within the course description, along with any special regulations governing the repeats for the particular course.

### Reserving Courses for Post-Degree or Graduate Credit for Education

If you have taken upper-division courses that were not needed to fulfill graduation requirements, you may request that specific ones be reserved for post-baccalaureate or graduate credit by making arrangements with the Education Department and the Records Office. To be fully credentialed by California and the SDA denomination, students must complete an approved fifth year or master’s degree of 45 quarter hours beyond a bachelor’s degree.

### Credit for Student Missionaries and Taskforce Volunteers

You may earn academic credit in connection with field experience (GNRL 350) during appointment as a Student Missionary or Task Force volunteer.

# Academic Information and Policies

## Directed Group Study

A course is offered as a Directed Group Study when a department chooses to

1. experiment with a course before it is listed in the catalog, or
2. offer the course, on a one-time basis, for enrichment purposes when sufficient student interest is indicated.

A specific title is assigned when the course is offered and the course is listed as follows:

1. Alpha prefix of the course
2. Course number 296 or 496
3. The title *Directed Group Study*
4. The name of the course as subtitle

## Directed Study

You may take a catalog-listed course on an individual basis only under the most unusual circumstances and at the discretion of the instructor and department chair. Any such course will be offered only for the number of hours listed in the catalog and will adhere to the catalog description and standard course syllabus. Consult with the Records Office for request forms and applicable criteria.

When Directed Study is approved, the course will be listed as follows:

1. Alpha prefix of the course
2. Course number 097, 297 or 497
3. The title *Directed Study*
4. The name of the course as subtitle

## Independent Study

Independent Study refers to advanced study or research you may do on an individual basis under the direction of a faculty member with regular appointment. You may use Independent Study for your major, minor, free electives or cognates, but not to meet general-education requirements. You may earn up to twelve hours in Independent Study.

To be eligible for Independent Study in any department, you must have reached junior or senior standing, have met all departmental prerequisites, and have earned a minimum GPA of 3.0 in the proposed area of study. In order to register for an independent study, you must complete and submit a Request for Independent Study form (available at the Records Office). In order to complete the form, you will negotiate a contract with the instructor and the chair of the supervising department specifying the number of hours of credit to be earned, the detailed requirements of the course, the grading criteria, and a schedule of meetings.

Independent Study should not take the place of courses regularly available.

## Regulations Governing Credit by Examination

You may earn academic credit by successfully writing certain AP (Advanced Placement), IB (International Baccalaureate), CLEP (College Level Examination Program), DSST (DANTES Subject Standardized Tests), Excelsior, and college-prepared examinations. The following regulations apply to all credit earned through examinations:

1. No credit by examination is available for remedial courses.
2. The maximum credit applicable to a four-year degree is 45 hours of AP, IB, CLEP, DSST, and/or Excelsior examination credit and 18 hours of college-prepared examination credit.
3. The maximum credit applicable to a two-year degree is 24 hours of AP, IB, CLEP, DSST, and/or Excelsior examination credit and 9 hours of college-prepared examination credit.
4. Pacific Union College awards credit for selected examinations only. You may get further information at the Records Office regarding which examinations are accepted for credit by Pacific Union College.
5. Credit earned by examination will be placed on your transcript with the credit hours earned and a grade of "S".
6. You may not earn credit by examination if the course in questions is a prerequisite to one in which you have already earned credit.
7. If you have taken or attempted a course, you may not raise the grade for that course through credit by examination.

## AP and IB Examinations

AP and IB examinations are taken in secondary school after completion of an AP or IB course in a particular subject.

The following regulations govern credit earned through AP and IB examinations:

1. The credit is subject to the *Regulations Governing Credit by Examination* listed above.
2. Credit is granted based on satisfactory scores on examinations, not on coursework completed in high school. To earn credit through the AP program, you must pass the AP examination with a score of 3, 4, or 5. To earn credit through the IB program, you must pass the Higher Level IB examination with a score of 4, 5, 6, or 7. No credit is awarded for Standard Level IB examinations.
3. You will be granted 4 or 8 quarter hours of General Education or elective credit for each passed AP examination. You will be granted 8 quarter hours of General Education or elective credit for each passed IB Higher Level examination. Information regarding exact credit amounts and equivalencies for each test may be obtained from the Records Office.

4. GE and elective credits granted for AP and IB examinations do not necessarily apply to major requirements. Some professional or graduate schools may not accept AP and IB credit. Check with your advisor to determine the applicability of AP and IB credit to your major or pre-professional program.

### **CLEP, DSST, and Excelsior Examinations**

CLEP, DSST, and Excelsior examinations are intended as a means of establishing academic credit for persons who, through extensive independent study, specialized training, etc., have gained knowledge equivalent to that gained by regular study in formal college courses.

The following regulations govern credit earned through CLEP, DSST, and Excelsior examinations:

1. The credit is subject to the *Regulations Governing Credit by Examination* listed above.
2. The CLEP, DSST, and Excelsior examinations are open to all classifications of students, but are directed towards freshmen and sophomores.
3. CLEP, DSST, and Excelsior examinations are prepared and administered by outside testing agencies. The Pacific Union College Counseling Center is an official testing site; you may get further information regarding examination procedures at the Counseling Center.
4. To earn credit for a CLEP, DSST, or Excelsior examination, you must achieve the credit granting score recommended by the American Council on Education.

### **College-Prepared Examinations**

College-prepared examinations are prepared and administered by Pacific Union College faculty members. They are intended as a means of establishing academic credit for persons who have gained knowledge to that equivalent to that gained by regular study in formal college courses through activities such as independent study, work experience, and specialized training.

The following special regulations govern credit earned through college-prepared examinations:

1. The credit is subject to the *Regulations Governing Credit by Examination* listed above.
2. No college-prepared examination may be taken until a completed Request for Credit Examination form is on file at the Records Office. The form can be obtained from the Records Office and requires the signatures of the course instructor, the department chair, and the registrar as well as proof of payment for examination fees. For fees, see the

section entitled “Financial Information” in this catalog.

3. A course for which credit may be earned by examination is normally a lower-division course in a four-year curriculum or a first-year course in a two-year curriculum. Its content is such that it can be measured by a written, oral, or manipulative test.
4. To be eligible for credit by examination, you must demonstrate superior competence by such evidence as the following:
  - a) a GPA of at least 3.0 in similar courses;
  - b) a percentile score of at least 75 on an ACT test in the same area;
  - c) similar course work in a non-academic institution; or
  - d) work experience sufficient to develop course competencies.
5. To earn credit for a college-prepared examination, you must score a C+ or better on the graded examination.
6. If you have audited a course, you may earn credit by examination for the course by paying one half of regular tuition.
7. Examinations for credit cannot be repeated.

### **Waiver Examinations**

You may waive certain course requirements provided that you fulfill one of the following conditions:

1. Present credit in courses substantially equivalent in purpose, scope, context, and credit value to the required course from which you request exemption.
2. Pass a proficiency examination. The examination is administered by the department concerned and approved by the Records Office.

Qualifying for course exemption through waiver examination does not involve the awarding of credit, nor does it reduce the total number of hours to be earned for a degree. Its only effect is to increase the number of elective hours available as part of your degree program. For examination fees, see the section entitled “Financial Information” in this catalog.

### **Credit by Life-Learning Portfolio Assessment**

You may earn up to 18 hours of credit through assessment of documentation provided in a Life-Learning Portfolio. The Academic Standards and General Education Committee administers this program in harmony with established Pacific Union College guidelines and standards. Additional information is available at the Records Office.

### Academic Standing

Academic standing is determined at the end of each quarter based on academic performance. When evaluating “consecutive” or “subsequent” quarters to determine academic standing, the quarters to be considered are your most recent quarters at Pacific Union College. This applies whether or not that period of quarters was interrupted for any reason by one or more breaks in enrollment.

*For the purposes of determining academic standing, the GPA is computed including grades earned for remedial coursework.*

Academic standing for a particular term is not retroactively changed if that term GPA is impacted by repeating a course for a better grade in a later term.

#### First Quarter Academic Probation

You will be placed on *first quarter academic probation* at the end of any quarter when your GPA for that quarter or your Pacific Union College cumulative GPA falls below 2.0. Occasionally, a new student may be admitted on first quarter academic probation.

While on first quarter academic probation, you may enroll in a maximum of 15 quarter hours of course work. You will not be eligible for any office in student activities, and you will be required to meet regularly with an assigned Academic Mentor in the Teaching and Learning Center. If you are placed on first quarter academic probation as a freshman, you will be required to register for and successfully complete the student seminar sequence (GNST 104-105).

At the end of the quarter, your academic performance will be evaluated. Your quarter GPA and your Pacific Union College cumulative GPA *each* must be at least 2.0 to achieve regular standing, otherwise you will be placed on second quarter academic probation.

#### Second Quarter Academic Probation

You will be placed on *second quarter academic probation* at the end of the second consecutive quarter when either your GPA for that quarter or your Pacific Union College cumulative GPA is below 2.0.

While on second quarter academic probation, you are subject to the same guidelines for students on first quarter academic probation (as described above).

At the end of the quarter, your academic performance will be evaluated. Your quarter GPA and your Pacific Union College cumulative GPA *each* must be at least 2.0 to achieve regular standing, otherwise you will be placed on academic suspension.

### Academic Suspension

You will be placed on *academic suspension* at the end of the third consecutive quarter when either your GPA for that quarter or your Pacific Union College cumulative GPA is below 2.0. *Academic suspension is recorded on the transcript.*

While on academic suspension, you may not continue your studies at Pacific Union College. You may apply for readmission after you complete at least ten quarter hours of transferable coursework at another accredited college or university for which you earn a GPA of at least 2.25.

If you are readmitted to Pacific Union College following academic suspension, your academic performance will be evaluated after each successive quarter:

1. If you have a Pacific Union College cumulative GPA below 2.0 upon readmission after suspension:  
You must achieve a minimum GPA of 2.25 for each successive quarter until you have completed at least 2 successful quarters *and* your Pacific Union College cumulative GPA has reached 2.0. You will achieve regular standing after at least two quarters have been successfully completed *and* your cumulative GPA has reached 2.0, otherwise you will be placed on Academic Dismissal.
2. If you have a Pacific Union College cumulative GPA of 2.0 or above upon readmission after suspension:  
You must achieve a minimum GPA of 2.0 for each of your next two quarters. You will achieve regular standing after these two quarters have been successfully completed, otherwise you will be placed on academic dismissal.

### Academic Dismissal

You will be placed on *academic dismissal* if you are readmitted to Pacific Union College following academic suspension and then fail to earn a satisfactory GPA (as described above) during any subsequent quarter. *Academic dismissal is recorded on the transcript.*

While on academic dismissal, you may not continue your studies at Pacific Union College. You may reapply for readmission after you complete at least 45 quarter hours of transferable coursework at another accredited college or university for which you earn a GPA of at least 2.25.

If you are readmitted to Pacific Union College following academic dismissal, your academic performance will be evaluated after each subsequent quarter. You must earn a GPA of at least 2.0 each quarter of your enrollment at Pacific Union College, otherwise you will be placed on permanent academic dismissal.

### Permanent Academic Dismissal

You will be placed on *permanent academic dismissal* if you

are readmitted to Pacific Union College following academic dismissal and then your GPA falls below 2.0 in any quarter. *Permanent academic dismissal is recorded on the transcript.*

Students on permanent academic dismissal are ineligible for readmission to Pacific Union College.

### Academic Renewal

When academic renewal is granted, your permanent Pacific Union College transcript is annotated so that it is readily evident to all users of the record that no work taken during the disregarded terms, even if satisfactory, may apply toward degree requirements. All work will remain legible on the record, ensuring a true and complete academic history.

#### Academic Renewal Option 1:

You may petition the registrar for up to three quarters or two semesters of previous undergraduate coursework, taken at any college or university, to be disregarded from the GPA and from all considerations associated with degree requirements.

It is expected that you will have demonstrated that work completed in the terms under consideration is substandard and not representative of your current academic ability and level of performance.

The final decision to disregard one or more terms of coursework is based upon careful review of evidence by the registrar and is made when:

1. at least one year has elapsed since the most recent work to be disregarded was completed; and
2. you have completed at Pacific Union College at least 15 quarter units with at least a 3.0 GPA.

#### Academic Renewal Option 2:

If your GPA is lower than 2.0, you may petition the registrar to have excluded from your record all *prior* college credit and to have no GPA. To qualify, you must

1. be at least 25 years of age;
2. have been out of a degree program of college studies for at least four years; and
3. demonstrate ability to progress in college work.

### Veteran Student Enrollment and Satisfactory Progress

The veterans certifying official in the Records Office submits official certifications of enrollment to the Veterans Administration so that educational benefits can be awarded.

If you are a veteran or the dependent of a veteran, you must apply for certification by contacting the certifying official at the Records Office. The certifying official will supply the necessary forms and advise you of the procedures you must complete in order to receive the benefits to which you are entitled. It is recommended that you submit your paperwork at least two months prior to the date you expect to enroll.

The Department of Veterans Affairs (VA) determines eligibility for benefits. Monthly payments are made by the VA directly to you, the student, with the following exception: the school receives payments for tuition and fees directly from the VA if you are receiving benefits under the Post-9/11 G.I. Bill. These payments will be placed directly on your student accounts

To qualify for maximum benefits, you must enroll for a full course load (See “Course Load”). If you enroll for less than a full course load, your benefit payments will be adjusted accordingly by the VA.

According to VA policy, veterans’ educational benefits are discontinued for a veteran (or eligible person) who remains on academic probation for more than three quarters. If you should come into this category, the VA will be notified that your certification has been terminated for “Unsatisfactory Attendance, Conduct, Or Progress”. There will be no further certification for benefits until your academic standing reflects improvement to a cumulative 2.0 GPA.

### Class Standing

Class standing is calculated based on quarter hours of credit completed. New transfer students will have their official class standing calculated within one quarter after all official transfer transcripts have been submitted to Pacific Union College.

**Freshman:** A beginning first-year student or one who has completed fewer than 45 quarter hours of credit.

**Sophomore:** A student who has completed at least 45 quarter hours.

**Junior:** A student who has completed at least 90 quarter hours of credit.

**Senior:** A student who has completed at least 135 quarter hours of credit.

**Graduated:** A student who has completed an undergraduate degree at Pacific Union College and is pursuing a second undergraduate degree.

**Graduate Student:** A student who holds a baccalaureate degree from an accredited college or university and has been accepted into a Master degree program.

## **Dean's List**

When you complete a minimum of 12 college-level credits with a GPA of at least 3.85 during a term at Pacific Union College, you are honored as a member of the Dean's List for that term.

## **Transcripts and Diplomas**

*No transcripts or diplomas are issued until all of your financial obligations have been met.* The college reserves the right to withhold all information concerning your record if you are in arrears in payment of accounts or other charges, including student loans.

### **Transcripts**

*At your written and signed request,* the Records Office will provide transcripts of your credits. For transcript fees, see the section entitled "Financial Information" in this catalog. You should allow two weeks for processing your request and mailing the transcript.

### **Diplomas**

Diplomas for graduates will be mailed approximately one month after:

1. The commencement ceremony has been completed;
2. Final grades have been recorded;
3. Final academic evaluations have been completed; and
4. Financial clearance has been obtained.

One diploma is provided free of charge for each degree earned. If a replacement diploma is requested, a fee of \$25 per diploma is assessed. The phrase "Reissued on *date*" is recorded on the replacement diploma.

### **Documents from other Institutions**

Documents (including transcripts) from other institutions which have been presented for admission and evaluation of credit become the property of the college and are not reissued or copied for release.

Pacific Union College is a Christian liberal arts institution of higher education offering studies and activities designed to promote the harmonious development of each student—spiritually, mentally, socially, and physically.

Through religious services, classroom instruction, and a varied program of social and cultural activities, the college seeks to assist in the development of both character and intellect. A sincere attempt is made to create an environment in which each student may freely arrive at a realistic and satisfying concept of human nature and of humanity's relation to the universe.

Character as a code of moral and spiritual values, and intellect as the tool of reason, are integrated in the learning experience in order to provide a firm base for effective, ongoing contributions to the church and society.

In essence, the college seeks to

- promote the development of a sense of values and a personal philosophy of life as an outgrowth of commitment to the Christian faith;
- stimulate intellectual curiosity essential to the discovery of truth;
- encourage creativity in thought and expression;
- demonstrate that learning is both discipline and pleasure and that meaningful, lasting benefits accrue to those who throughout life continue to experience the satisfaction of learning;
- introduce students to the great body of knowledge by which people understand and relate to their physical and social environments;
- develop certain basic skills and abilities that contribute to satisfactory social and occupational relationships; and
- nurture our learning community by meeting regularly at the Colloquy Speaker Series.

While Pacific Union College is primarily a four-year liberal arts institution, it also offers two-year programs leading to associate degrees, professional four-year degrees, a graduate program in education, and preprofessional programs.

## Degrees and Curricula

### Degrees Offered

- *Associate Degree:*  
Associate of Science (A.S.)
- *Baccalaureate Degrees:*  
Bachelor of Arts (B.A.)  
Bachelor of Science (B.S.)
- *Professional Baccalaureate Degrees:*  
Bachelor of Business Administration (B.B.A.)  
Bachelor of Fine Art (B.F.A.)  
Bachelor of Music (B.Mus.)  
Bachelor of Science in Nursing (B.S.N.)  
Bachelor of Social Work (B.S.W.)
- *Graduate Degrees:*  
Master of Arts in Teaching (M.A.T.)  
Master of Education (M.Ed.)

### Teacher Education Program

Teacher education at Pacific Union College is a two-step, five-year program involving preparation in subject-matter areas and professional education courses required for Seventh-day Adventist and California State teaching credentials. For further information, see the section entitled "Education" in this catalog.

### Preprofessional Curricula

Preprofessional curricula and advising are offered to prepare students for admission to certain types of professional schools. For a list of available curricula, see p. 4 of this catalog.

### Certificate

A TESOL (Teaching English to Speakers of Other Languages) Certificate is available. For further information, see the section entitled "English" in this catalog.

# Degree Requirements and General Education

## Completion of Degree Requirements

*It is the responsibility of each student to satisfy degree requirements.* You are expected to acquaint yourself with the various policies and requirements published in the catalog and, in consultation with your advisor, to plan your course of study accordingly.

### Advisory Services

As a new student, you will work with an enrollment counselor, a departmental advisor, and/or a transfer credit analyst in order to plan your first quarter schedule and complete your initial registration.

Your academic advisor(s) will be assigned based on your declared academic program; assignment occurs directly prior to the start of your first quarter. Thereafter, you should plan to meet with your academic advisor(s) regularly for consultation and support. In April, an advising restriction is placed on each student's registration account. You are required to clear this restriction prior to registration for the next academic year; clearance will be granted by your academic advisor(s) once you have met for a satisfactory advisory session.

In planning your studies, you should carefully follow the degree requirements outlined in this catalog. At any time during your enrollment at Pacific Union College you may run a Degree Audit as a tool to make sure all the degree requirements are being met. Such planning helps to ensure that you meet all graduation requirements in an orderly, logical, and timely sequence.

### Undeclared Students

Students who are not ready to declare a major are assigned to an advisor who will help them structure their course schedules in a way that provides an appropriate foundation for their future major course work. The advisor also assists students in looking at course options that will be helpful in making a decision about the major.

### Teaching Credential Advising

Teacher education at Pacific Union College involves preparation in subject-matter areas as well as professional education courses required for Seventh-day Adventist and California State teaching credentials. Course selection and sequencing is crucial for students pursuing an education credential. If you have chosen a career in teaching, you should consult with the chair of the Education Department as early as possible in your curriculum planning.

### Catalog Requirements

You normally meet the graduation, general education, and major course requirements of the catalog current the year you first enter Pacific Union College. You have the option of qualifying under any catalog in effect during the time you are in continuous residence. You may choose the requirements for your major and for general education from separate qualifying catalogs.

If your residence as a student at Pacific Union College is broken by a period of more than three consecutive quarters (excluding summer quarter), you must meet the requirements of the catalog under which you return to the college, or of a subsequent catalog.

### Degree Candidacy

You should apply for degree candidacy when you begin the academic year during which it will be possible to complete all requirements for graduation. To begin this process, meet with your advisor to review your remaining degree requirements and register for all remaining classes. Once registered, print out a copy of your completed Degree Audit/Program Evaluation from WebAdvisor and have your advisor sign it.

The completed and signed Degree Audit/Program Evaluation should be submitted to the Records Office along with an Application to Graduate and a signed Graduation Contract. The Assistant Registrar will review these documents for completeness and will work with you to resolve any remaining requirements. Upon the satisfactory completion of this process, you will be considered a degree candidate and will be placed on the official graduating list for the academic year.

You should complete the degree candidacy application process before the beginning of winter quarter and you must complete the degree candidacy application process before the beginning of spring quarter of the academic year during which it will be possible to complete all requirements for graduation. In order to be eligible for participation in spring commencement, you are expected to successfully complete an application for degree candidacy before the beginning of spring quarter.

All transfer coursework must be completed and officially filed at the Records Office at least a full quarter before your expected graduation. Any exceptions must be approved through the Records Office in harmony with established guidelines.

### Commencement

At the end of spring quarter, commencement is held for all students who have completed all requirements for a degree. If you complete your requirements during a summer, fall or winter quarter, you are eligible to participate in the following spring commencement.



## Official Degree Conferral Date

The official date of degree conferral appearing on your academic records is that of the last day of the quarter during which you actually completed the degree requirements.

For the 2012-2014 academic years, the official degree conferral dates are as follows:

2012-2013 (Eligible for June 2013 commencement) Requirements Completed	Degree Conferred
Summer 2012	August 16, 2012
Fall 2012	December 13, 2012
Winter 2013	March 21, 2013
Spring 2013	June 16, 2013
2013-2014 (Eligible for June 2014 commencement) Requirements Completed	Degree Conferred
Summer 2013	August 15, 2013
Fall 2013	December 12, 2013
Winter 2014	March 20, 2014
Spring 2014	June 15, 2014

## Graduation In Absentia

You are expected to participate in the commencement service for which you are eligible unless you notify the Records Office *in advance* that you plan to graduate *in absentia*. You should make written application for exemption not later than one week prior to commencement. A fee of \$25 is assessed if you are absent from graduation without having given prior notice.

## Graduation Recognition for Nurses

All nursing students are expected to participate in the recognition (pinning) service. Requests for exemption may be submitted to the Nursing Department.

## Graduation with Academic Distinction

Undergraduate students who have earned both a Pacific Union College and an overall GPA of 3.5-3.749 will be graduated *cum laude*; those with 3.75-3.899, *magna cum laude*; and those with 3.9-4.0, *summa cum laude*. For the commencement program, preliminary academic distinction is calculated based on all coursework completed up through the winter quarter. However, the official academic distinction which appears on the academic records is calculated based on all work completed for the degree.

## Honors Program Graduation

The Honors Program is a baccalaureate-level program designed to enrich the studies of well-prepared students. Students fulfilling all requirements of the Honors Program will graduate "With Honors," a designation that appears on the graduation program and on the student's transcript and diploma.

## Multiple Degrees

Multiple degrees may be conferred concurrently or subsequently if you have met all the major and general-education requirements for each degree and the requirements for multiple majors.

## The Associate Degree Program

The two-year associate degree program is designed for students interested in occupations requiring a limited amount of training.

### Graduation Requirements for the Associate Degree

Candidates for associate degrees must satisfy the following requirements:

#### ► Residence Requirements:

You must satisfy the following minimum residence requirements on the Angwin campus or in an extension program.

1. A minimum of 24 quarter hours.
2. The last 12 hours of the major.

#### ► General Requirements:

You must satisfy the following general requirements to earn the associate degree.

1. A minimum of 90 quarter hours of course work.
2. A minimum resident and cumulative GPA of 2.0 (C). Some departments have additional GPA requirements, as outlined in the departmental listings.
3. Completion of the general education requirement specified for the degree sought.
4. Completion of an associate-degree major according to the specified guidelines.
5. Completion of application for degree candidacy.
6. Completion the assessment requirements. The requirements are incorporated in the major courses for nursing students. All other associate-degree students take GNST 201.

#### ► The Associate Degree Major:

The specific requirements for each major are given under the departmental listings, and the following requirements apply to all majors:

1. No course, including required cognates, with a grade below C- may apply toward the major.
2. You must maintain a minimum GPA of 2.0 (C) in the major. Some departments have additional requirements, as outlined in the departmental listings.

You may earn more than one major, provided that you complete all courses and cognates required for both. However, a minimum of 30 quarter hours in the second major must not overlap those in the first.

## Degree Requirements and General Education

### The Baccalaureate Degree Program

Preparation for a career involves both general and specialized education. Courses of study leading to a baccalaureate degree are designed to give a general understanding of the major academic disciplines and to provide for specialization in the field of your major interest.

If you have not yet selected a major, you may pursue a general program of education while exploring several fields of knowledge. One can usually do this without loss of time or credit if the program is carefully planned in consultation with your faculty academic advisor.

#### Graduation Requirements for the Baccalaureate Degree

Candidates for baccalaureate degrees must satisfy the following requirements:

##### ► *Residence Requirements:*

You must satisfy the following minimum residence requirements on the Angwin campus or in an extension program.

1. 36 of the last 48 quarter hours immediately preceding conferral of your degree.
2. 30 quarter hours of upper-division course work.
3. One-half the upper-division hours in your major.
4. For students taking a minor, 6 upper-division hours for the minor.

##### ► *General Requirements:*

You must satisfy the following general requirements to earn the baccalaureate degree.

1. A minimum of:
  - 192 quarter hours of coursework total
  - 60 hours at the upper-division level
  - 84 hours from senior-level (four-year) institutionsWithin the hours required for a baccalaureate degree, most students will find room for elective courses that will also enrich their general preparation.
2. A minimum resident and cumulative GPA of 2.0 (C). Some departments have additional GPA requirements, as outlined in the departmental listings.
3. Completion of the general education requirement specified for the degree sought.
4. Completion of a baccalaureate-degree major according to the specified guidelines.
5. Completion of application for degree candidacy.
6. Completion of GNST 401, Senior Assessment Seminar, including any discipline-specific requirements.

##### ► *The Baccalaureate Degree Major:*

A major consists of a minimum of 45 quarter hours. The specific requirements for each major are given under the departmental listings, and the following requirements apply to all majors:

1. No course, including required cognates, with a grade below C- may apply toward the major.
2. You must maintain a minimum GPA of 2.0 (C) in the major.

Some departments may have additional requirements, as outlined in the departmental listings.

You may earn more than one major or emphasis, provided that you complete all courses and cognates required for both. However, a minimum of 30 quarter hours in the second major or emphasis must not overlap those in the first.

##### ► *The Baccalaureate Degree Minor:*

You may choose to earn a minor if you earn a baccalaureate degree. However, a minor is not required for graduation.

A minor consists of a minimum of 30 quarter hours. The specific requirements for each minor are given under the departmental listings, and the following requirements apply to all minors:

1. No course, including required cognates, with a grade below C- may apply toward the minor.
2. You must maintain a minimum GPA of 2.0 (C) in the minor.
3. A minimum of 20 hours in the minor must not overlap those in the major.
4. The minor must have a name different from the major.

You should consult with your academic advisor about a minor if you plan to teach, if you desire teaching credentials, or if you anticipate attending a graduate or professional school that requires a concentration in a discipline other than the major.

### The Master Degree Program

Programs leading to a Master of Arts in Teaching and a Master of Education is available. If you are interested in one of these degrees, you should consult the section entitled "Education" in this catalog. Address specific questions to the chair of the Education Department.

## General Education

### Regulations Governing General Education

1. Unless expressly excluded by a statement in the departmental course listings, a general education course in the field of your major may both satisfy the general education requirement and apply toward your major.
2. Credit hours from any given course may be applied to only one area of general education.
3. No course with a grade below D- may apply toward general education.
4. The general-education program contains prerequisite requirements (IV.A and VIII) that may be met through the satisfactory completion of certain courses at a regionally-accredited secondary institution. If you complete such courses through home school or at an unaccredited secondary institution, you may elect to validate each course by passing departmental challenge examinations.

### IGETC

The Intersegmental General Education Transfer Curriculum (IGETC) is a series of courses offered in the California community colleges for students who plan to transfer to baccalaureate-level institutions. There are two options: UC and CSU. :

- UC Completion of the UC IGETC will satisfy all requirements for areas I, III, IV, and V in the PUC baccalaureate general education package EXCEPT for requirement I.B, Oral Communication. Students who complete the UC IGETC will still be required to meet this requirement.
- CSU Completion of the CSU IGETC will satisfy all requirements for areas I, III, IV, and V in the PUC baccalaureate general education package.

Students who complete the IGETC will still be required to meet all requirements for areas II, VI, VII, and VIII in the PUC baccalaureate general education package.

Completion of the IGETC must be certified by a community college counselor and submitted to Pacific Union College with the student's final transcript prior to the first term of enrollment.

### Transfer Students

The main objective of the general education program is not so much to require a prescribed list of courses as it is for students to achieve the *purposes* of general education as stated in each section. The courses listed are those by which Pacific Union College students achieve the purposes of the program. Acceptable transfer courses for meeting requirements may not in every case be identical, but they must achieve the purposes of each section.

### English Course Placement

English course placement is determined by the score you received on the English subsection of the ACT exam (ACTE) or the verbal subsection of the SAT exam (SATV):

- ENGL 099: Students with ACTE scores of 0-14  
Students with SATV scores of 0-370
- ENGL 100: Students with ACTE scores of 15-18  
Students with SATV scores of 380-460  
Students who have completed ENGL 099
- ENGL 101: Students with ACTE scores of 19-36  
Students with SATV scores of 470-800  
Students who have completed ENGL 100

If you do not submit ACT or SAT scores, you will be placed in ENGL 099 (international students) or ENGL 100 (all other students). This placement may be modified upon receipt of scores or upon completion of a placement test at the English Department. If you are placed into ENGL 099 or ENGL 100, you will be required to take the appropriate English course during the first quarter of your enrollment at Pacific Union College.

### Algebra Course Placement

If you did not complete a full year of Algebra II with semester grades of C- or better at an accredited secondary institution, you will be required to take basic algebra at Pacific Union College in order to meet the algebra proficiency requirement.

You will be placed in the algebra courses based on the score you received on the mathematics subsection of the ACT exam (ACTM) or the mathematics subsection of the SAT exam (SATM):

- MATH 095: Students with ACTM scores of 0-18  
Students with SATM scores of 0-490
- MATH 096: Students with ACTM scores of 19-36  
Students with SATM scores of 500-800  
Students who have completed MATH 095

If you do not submit exam scores, you will be placed in MATH 095. This placement may be adjusted upon receipt of scores or upon completion of a waiver test available at the Mathematics Department.

# Degree Requirements and General Education

## The Purpose of General Education at Pacific Union College

The general education program at Pacific Union College seeks to provide students with the **knowledge, values, and skills** they need to live Christ-centered productive lives of integrity and service in a complex world.

- A **knowledge** of human cultures and the natural world;
- Seventh-day Adventist Christian **values, including** integrity, justice, compassion, and wholeness;
- The following **skills**:
  - To communicate effectively in both written and spoken English;
  - To think critically and creatively about information, ideas, and arguments;
  - To locate and use appropriately a broad variety of resources and information; and
  - To learn and work collaboratively.

The purposes of General Education are more specifically defined in each of the subsections.

## General Education Requirements for the Baccalaureate Degree

The general education requirements for the B.A. and B.S. degrees are listed in the following sections numbered I-VIII.

Modified general education requirements for the other baccalaureate degrees can be found in their respective departmental sections as follows:

B.B.A.	Business Administration
B.F.A.	Visual Arts
B.Mus.	Music
B.S.N.	Nursing
B.S.W.	Psychology/Social Work

Additionally, the Honors Program offers an alternative baccalaureate-level general education program for academically motivated students. Students who complete the Honors Program have no other general education requirements. The program is built around a series of “great books,” or core texts, illustrating significant themes in the liberal arts. For additional information, including curriculum requirements, see the section of this catalog entitled “Honors Program”.

## I. Foundations of Learning

- A. College Writing  
➤ ENGL 101+102 College English (4+4)  
*Honors Students (Specialized Option)*  
HNRS 110+120 Foundations + Liberty & America (5+5)  
This requirement should be completed by the end of the freshman year and must be completed by the end of the sophomore year.  
*Students who complete the College Writing requirement will be able to think and read critically; learn collaboratively; write clearly; and find, evaluate, and use secondary sources.*
- B. Oral Communication  
➤ One of the following courses:  
COMM 105 Intro to Comm (3) *Freshmen only*  
COMM 226 Public Speaking (3) *Non-freshmen only*  
*Students who complete the Oral Communication requirement will be able to communicate effectively through speaking and learning in a variety of contexts; critically evaluate argumentative claims; and learn collaboratively.*
- C. Statistics  
➤ STAT 222 Introduction to Statistics (4)  
*Students who complete the Statistics requirement will be able to reason critically in their use of statistical data.*

## II. Foundations of Faith

- At least 18 hours of religion coursework, distributed as follows:
- Complete sections A, B, C, D, E, and F as outlined below. Please note that no one course can apply in more than one section.
  - Include at least 9 hours from RELB and RELT courses.
  - Include at least 6 upper-division hours.
- When selecting religion electives, please note that certain upper-division religion courses are restricted to students majoring in Religion or Theology.
- Students who complete the Foundations of Faith requirement will be able to explain the historical and salvific meaning of Jesus, explore and critically analyze biblical texts and themes as well as Seventh-day Adventist beliefs and values, and integrate transformative faith perspectives with life in the contemporary world.*

## Degree Requirements and General Education

### A. Prerequisite:

- One of the following options:  
Two full years of Christian religion courses with semester grades of C- or better at an accredited secondary institution  
*or*  
Successful completion of an approved waiver exam  
*or*  
REL T 105 Introduction to the Bible (3)  
This requirement is a prerequisite to all other religion courses and must be completed within the first two quarters of enrollment at Pacific Union College.

### B. Encountering Jesus:

- REL B 150 Encountering Jesus (3)  
This requirement is a prerequisite to all other religion courses (except REL T 105) and must be completed within the first year of enrollment at Pacific Union College.

### C. Building Scriptural Foundations:

- One of the following courses (Note- students required to take REL T 105 to meet section 1 above may apply the course to this requirement.)  
REL B 200 Methods of Bible Study (3)  
REL B 225 Books of Moses (3)  
REL B 230 Psalms and Wisdom Literature (3)  
REL B 250 Parables of Jesus (3)  
REL B 260 Heroes and Villains (3)  
REL B 265 Kings and Conquests (3)  
REL B 270 Acts of the Apostles (3)  
REL T 205 Christian Beliefs (3)  
REL T 235 Spiritual Formation (3)

#### *BSN Students (Specialized Option)*

- REL B 341 Jesus as Healer (2-3)

This requirement must be completed within the first two years of enrollment at Pacific Union College. Completion of this requirement is prerequisite to enrollment in any upper-division religion courses.

### D. Exploring Seventh-day Adventist Life and Thought:

- One of the following courses  
REL H 235 Life and Ministry of Ellen White (3)  
REL H 360 Adventist Heritage (4)  
REL P 351 Ministry of Healing (3)  
REL T 220 Seventh-day Adventist Beliefs (3)  
REL T 335 Theology of the Sanctuary (3)  
REL T 336 Current Issues in Seventh-day Adventism (3)  
REL T 337 Last Day Events (3)  
REL T 338 The Sabbath (3)

### E. Integrating Faith and Life:

- One of the following courses  
REL B 315 Biblical Ethics (3)  
REL P 210 Creative Worship (3)  
REL P 235 Sharing Your Faith  
REL P 350 Studies in Christian Ministry (3)  
REL T 216 Introduction to Christian Ethics (3)  
REL T 240 Eco-theology (3)  
REL T 330 The Christian and the Media (3)  
REL T 355 Christian Ethics in Society (3)  
REL T 440 Christian Bioethics (3)  
  
*BSN Students (Specialized Option)*  
REL P 346 Spiritual Care for Patients (2-3)  
REL T 345 Christian Ethics/ Patient Care (2-3)  
  
*Psychology & Social Work Students (Specialized Option)*  
*A maximum of 3 credits may be applied from this list*  
PSYC 435 Psychology of Religion (3)  
SOC I 435 The Sacred and Profane in Society (3)  
PSYC/SOWK 490 Religion, Ethics, & Human Sciences (4)

### F. Electives:

- Take additional hours from REL B, REL H, REL P, and/or REL T courses to meet the total religion requirement.

#### *Note: Requirement in Religion for Transfer Students:*

As a Seventh-day Adventist Christian institution of higher education, religion coursework is a foundational part of the Pacific Union College curriculum. However, students who transfer from non-Adventist colleges or universities may not have had required religion coursework as part of their curriculum at the previous institutions.

These students may elect to waive a portion of the 18- hour requirement. The number of hours waived will be calculated in proportion to the total number of hours transferred from non-Adventist institutions.

The remaining religion requirement must be completed *at Pacific Union College* as described in the following chart:

Total Transfer Hours	Religion Requirement at PUC			
	Total Hours	UD Hours	RELH/T Hours	Sections Required
0-31	18	6	9	A,B,C,D,E,F
32-63	15	6	9	A,B,C,D,E,F
64-95	12	3	6	A,B,C,D,E
96-127	9	3	6	A,B,C,D
128+	6	0	3	A,B,C

# Degree Requirements and General Education

## III. History and Social Sciences

### A. History:

- One of the following sequences:

HIST 101+102 History of World Civilizations (4+4)

HIST 134+135 History of the United States (4+4)

*Students who complete the History requirement will be able to apply the methods of the historian to think critically about historical developments and ideas within a broad cultural context.*

### B. Social Sciences:

- Two of the following courses; one course from anthropology (ANTH), psychology (PSYC), or sociology (SOC) and a second course with a prefix different from that of the first:

ANTH 124 Cultural Anthropology (4)

ECON 261 Macroeconomics (4)

ECON 265 Microeconomics (4)

GEOG 210 World Regional Geography (3)

HIST 351 History of Culture (3)

MKTG 360 Consumer Behavior (3)

PLSC 124 Introduction to American Government (3)

PLSC 328 Critical World Issues (3)

PSYC 121 General Psychology (4)

PSYC 390 Gender Issues (3)

SOCI 121 Introduction to Sociology (4)

SOCI 214 The Family (4)

SOCI 232 American Social Problems (4)

SOCI 355 "Racial" and Ethnic Relations (3)

*Students who complete the Social Science requirement will be able to employ the methods of the social scientist to think critically about human behavior and interaction, including how humans create and are influenced by social, cultural, economic, and political structures.*

## IV. Arts and Humanities

### A. Literature:

- ENGL 301 Great Books (4) *Juniors & seniors only*  
*Students who complete the Literature requirement will be able to read literature for pleasure and understanding, and think, read, and write critically about literary texts within a broad cultural context.*

### B. Visual Arts, Music, Philosophy, Language and Culture:

- B.S. Students: Three of the following courses, each from a different area.
- B.A. Students: Three of the following courses- one from area A, one from area B, one from area C.

#### 1. Visual Arts:

ARTH 107 America in Art (3)

ARTH 115 History of Western Art I (4)

ARTH 116 History of Western Art II (4)

ARTH 278 Women in Art (3)

#### 2. Music:

MUHL 105 Survey of Music (3)

MUHL 245 World Music and Culture (3)

#### 3. Philosophy:

PHIL 101 Introduction to Philosophy (4)

PHIL 390 History and Philosophy of Science (3)

PHIL 485 Issues in Science and Religion (3)

PLSC 274 Introduction to Political Thought (3)

RELT 320 Philosophy of Religion (3)

#### 4. Language & Culture:

Demonstrated beginning-level language proficiency will not be applied to meet this requirement. It may only be met through an approved college-level language and culture course, such as one of the following:

CHIN 111 Beg Chinese I- Language & Culture (4)

FREN 111 Beg French I- Language & Culture (4)

GRMN 111 Beg German I- Language & Culture (4)

ITAL 111 Beg Italian I- Language & Culture (4)

SPAN 111 Beg Spanish I- Language & Culture (4)

*Students who complete the Visual Arts, Music, Philosophy, and Language & Culture requirement will be able to think critically about the development of human knowledge and expression, appreciate the perspectives and contributions of people of other cultures and historical periods, and identify standards of aesthetic value.*

## V. Science and Mathematics

### A. Algebra:

- A full year of Algebra II with semester grades of C- or better at an accredited secondary institution

*or*

Successful completion of an approved waiver exam

*or*

MATH 095+096 Basic Algebra I+II (4+4)

Requirement should be completed by the end of the freshman year and must be completed by the end of the sophomore year.

### B. Science:

- Two of the following courses, each from a different area. At least one of the courses must include a laboratory.

#### 1. Physical Science:

ASTR 115	Astronomy (5)
CHEM 101	Introductory Chemistry (4)
CHEM 102	Survey of Organic Chemistry (4)
CHEM 111	General Chemistry (4)
GEOL 233	Geology (4)
PHYS 105	Introduction to Physics (5)
PHYS 111	General Physics (4)
PHYS 211	Physics with Calculus (4)

#### 2. Life and Environmental Science:

BIOL 101	Human Anatomy (5)
BIOL 102	Human Physiology (5)
BIOL 105	Introduction to Biology (5)
BIOL 111	Biological Foundations (5)
BIOL 112	Biological Foundations (5)
BIOL 113	Biological Foundations (5)
BIOL 227	Natural History of California (4)
BIOL 338	Field Biology (3)
CHEM 481	Biochemistry I ((4)
ENVR 360	Conservation Biology (3)
ENVR 361	Energy and Climate Change (3)
ENVR 362	Pollution and Environmental Quality (3)
MICR 134	General Microbiology (5)

### C. Applications of Scientific and Mathematical Reasoning:

- One course from one of the following areas.

#### 1. Science Engaging Society:

BIOL 355	Issues on Origins (3)
GSCI 205	Scientific Discoveries (3)
PHYS 390	History and Philosophy of Science (3)
PHYS 485	Issues in Science and Religion (3)

*Biology Department Students (Specialized Option)*

BIOL 450	Philosophy of Origins (4)
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### 2. Mathematical Reasoning

Note: Calculus I is a prerequisite for the following courses.

MATH 132	Calculus II (4)
MATH 265	Elementary Linear Algebra (4)
MATH 275	Logic and Sets (4)
MATH 451	History of Mathematics (4)

*Students who complete the Science and Mathematics requirement will be able to demonstrate knowledge of basic science, to explain various methods of scientific inquiry, and to reason critically about the applications of scientific information.*

## VI. Health and Fitness

### A. Health:

- One course from the following:

FDNT 235	Nutrition (3)
HLED 162	Fitness for Life (2)
HLED 166	Health Education (2)
HLED 169	Current Health Concerns (2)

### B. Fitness:

- One exercise science activity (ESAC) course for each year in residence, with a maximum of four courses. One must be a course designated as an aerobic activity course (course number ends with A).

*Education Credential Students (Specialized Option)*

ESTH 476 PE for Children (3) applies as 1 ESAC course

**Note:** Requirement in Fitness for Transfer Students:

Students who transfer must complete the following minimum requirement in fitness:

Transfer Hours	ESAC Courses Requirement
0-44	4 courses, including 1 aerobic course
45-89	3 courses, including 1 aerobic course
90-134	2 courses, including 1 aerobic course
135+	1 aerobic course

*Students who complete the Health and Fitness requirement will be able to demonstrate the knowledge, skills, and inclination necessary to sustain a healthy, well-balanced life.*

# Degree Requirements and General Education

## VII. Practical and Applied Arts

A truly liberal education is comprehensive, affecting the whole person. In the courses listed below, students will broaden their applied and manual skills.

- At least 4 hours, to be selected from two or more of the following subsections:

### A. Practical Arts:

AGRI 212	Home Greenhouse Gardening (2)
AGRI 213	Home Vegetable Gardening (2)
ARTF 121	Drawing Fundamentals (2)
ARTF 212	Ceramics I (2)
ARTP 150	Black & White Photography (3)
DRMA 229	Acting I: Fundamentals (3)
DRMA 241	Performance Credit (1)
MUEN (Any)	Music Ensembles (1)
MUSP 120-124	Music Lessons (class instruction) (1)
MUSP 320-324	Music Lessons (class instruction) (1)
MUSP 162	Music Lessons (general) (1-2)
MUSP 362	Music Lessons (general) (1-2)

*Students will participate in activities which lead to skills that are both useful and enriching.*

### B. Information Management:

CPTR 105	Intro to Computers (3)
CPTR 115	Intro to Computer Programming (4)
INFS 144	PC Operating Systems (1)
INFS 148	PC Spreadsheets (1)
INFS 149	PC Databases (1)
OFAD 201	PC Word Processing (2)

*Students will acquire the basic knowledge and skills necessary to use computers to manage information.*

### Education Credential Students (Specialized Option)

EDUC 332/L	Computer Tech for Teachers + Lab (3)
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### C. Management of Personal Finance:

ACCT 121	Financial Accounting I (3)
BUAD 118	Personal Money Management (3)
BUAD 223	Personal Law (2)
BUAD 335	Real Estate (4)

*Students will learn to manage personal financial resources.*

### D. Personal Skills:

COMM 223	Interpersonal Communication (3)
PSYC 126	Assertive Behavior (2)
PSYC 227	Conflict Resolution & Rel Skills (3)

*Students will develop skills for dealing with personal relationships and life crises.*

## VIII. Foreign Language (B.A.)

This section is required of all B.A. students and is recommended for students in other curricula.

### A. Prerequisite:

- One of the following options:
  1. Two full years of a foreign language with semester grades of C- or better at an accredited secondary institution  
*or*
  2. Satisfactory completion of an elementary-level college sequence in a foreign language such as one of the following:

FREN 111+112+113	Beginning French (4+4+4)
GRMN 111+112+113	Beginning German (4+4+4)
ITAL 111+112+113	Beginning Italian (4+4+4)
RELL 125+126+127	Beginning Greek (3+3+3)
RELL 427+428/ RELB 445	Biblical Hebrew I+II/ Hebrew Exegesis (3+3+3)
SPAN 111+112+113	Beginning Spanish (4+4+4)

### B. Requirement\*:

- A language-cultural experience in a foreign language through one of the following options:
  1. An intermediate-level college sequence in a foreign language such as one of the following:

RELL 235+236/ RELB 335	Intermediate Greek I+II/ Greek Exegesis (3+3+3)
SPAN 132+133	Intensive Interm. Spanish (5+5)
SPAN 151+152+153	Intermediate Spanish (4+4+4)

*or*
  2. An elementary-level college sequence in a foreign language not previously studied.

*Students who complete the Foreign Language requirement will be able to read and communicate at the intermediate level in a foreign language or at the beginning level in two foreign languages. They also will be able to appreciate and think critically about another culture.*

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\* This requirement may be waived (with no college credit) for students who demonstrate one of the following:

- 1) Completion of at least four years of formal schooling conducted in a foreign language with a C average or better in a country where that language is the native tongue. (Contact the Records Office)
- 2) Intermediate-level proficiency on an exam approved by the Modern Languages Department. (Contact the department chair)



## General Education Requirements for the Associate of Science Degree

The general education requirements for the A.S. degree are listed below. Modified general education requirements for the A.S. in Nursing can be found in the section entitled “Nursing”.

### I. College Writing\*

- ENGL 101 College English (4)

### II. Oral Communication

- One of the following courses:  
 COMM 105 Intro to Communication (3) *Freshmen only*  
 COMM 226 Public Speaking (3) *Non-freshmen only*

### III. Algebra\*

- A full year of Algebra II with semester grades of C- or better at an accredited secondary institution  
*or*  
 Successful completion of an approved waiver exam  
*or*  
 MATH 095+096 Basic Algebra I+II (4+4)

### IV. Religion

- At least 9 hours of religion coursework. These 9 hours must include:
  - Completion of sections A, B, C, and D listed below.
  - At least 6 hours from RELB and/or RELT courses.

#### A. Prerequisite:

- One of the following options:  
 Two full years of Christian religion courses with semester grades of C- or better at an accredited secondary institution  
*or*  
 Successful completion of a waiver exam administered by the Religion Department  
*or*  
 RELT 105 Introduction to the Bible (3)

This requirement is a prerequisite to all other religion courses and must be completed within the first two quarters of enrollment at Pacific Union College.

#### B. Encountering Jesus:

- RELB 150 Encountering Jesus (3)  
 This requirement is a prerequisite to all other religion courses (except RELT 105) and must be completed within the first year of enrollment at Pacific Union College.

- C. Understanding Christian Faith and Foundations:  
 ➤ Take an elective course from RELB, RELH, RELP, or RELT. It is recommended that the course be selected from the options listed under section C of the baccalaureate religion GE requirement. (Note- students required to take RELT 105 to meet section A above may apply the course to this requirement.)

- D. Exploring Seventh-day Adventist Life and Thought:  
 ➤ Take one course from the options listed under section D of the baccalaureate religion GE requirement.

*Note: Requirement in Religion for Transfer Students:* Students who transfer from non-Adventist colleges or universities may elect to waive a portion of the religion requirement (see baccalaureate GE section for further explanation).

The remaining religion requirement must be completed at Pacific Union College as described in the following chart:

Total Transfer Hours	Religion Requirement at PUC		
	Total Hours	RELB/T Hours	Sections Required
0-31	9	6	A,B,C,D
32-63	6	3	A,B,C
64+	3	3	A,B*

*\*This student will be required to take only one course from either section A or B, depending on placement.*

### V. Health

- One course from the following:  
 FDNT 235 Nutrition (3)  
 HLED 162 Fitness for Life (2)  
 HLED 166 Health Education (2)  
 HLED 169 Current Health Concerns (2)

### VI. Fitness:

- Two exercise science activity (ESAC) courses. One must be a course designated as an aerobic activity course (course number ends with A).

### VII. Electives

- Two courses selected from at least two of the following areas (from courses that meet baccalaureate degree general education requirements- see the previous pages):

- A. History/Social Sciences
- B. Literature/Visual Arts/Music/Philosophy/Language
- C. Science/Mathematics/Statistics

\* See course placement guidelines listed previously.



## Prefix 1

The three- or four-letter prefix to each course number indicates the subject area. An index of course prefixes may be found on the following two pages.

## Numbering and Classification 2 of Courses

Courses are numbered as follows:

### 001-099 Remedial Courses

For students with inadequate academic skills. Credit earned through remedial courses may not apply towards any degree or towards the GPA.

### 100-299 Lower-division Courses

Normally taken by freshmen and sophomores.

### 300-499 Upper-division Courses

Normally taken by juniors and seniors. Freshmen may register for these courses only with special permission of the registrar and with the approval of the academic advisor and the course instructor.

### 500-599 Graduate Courses

Primarily for graduate students. With the approval of the major professor, a senior whose preparation is adequate may take graduate courses for undergraduate credit.

## Credit Hours 3

One quarter hour of credit generally represents a minimum of thirty hours of work on the part of the student, or three hours of work per week throughout the standard ten-week quarter.

A lecture course will include approximately one hour of class and two hours of out-of-class work per week per credit. An activity course (laboratory, exercise science activity, etc) will include two to three hours of activity per week per credit, with out-of-class work assigned as needed. Other types of courses will be arranged as needed to involve the appropriate amount of student work.

A course offered in a term of a different length will contain the same contact hours and out-of-class student work as the same course offered during a standard academic quarter.

## Quarter System 4

Quarters are designated as Fall **F**; Winter, **W**; Spring, **S**; and Summer, **Su**. Every effort is made to accurately reflect the quarter(s) in which a course will be offered. However, the college reserves the right to adjust course scheduling as necessary.

Some courses are **Arranged** rather than being taught on a regular cycle.

## Special Information 5

Any special information for a course is designated at the end of the course description as follows:

- Laboratories- Three hours in length unless specified otherwise.
- Prerequisites\*
- Corequisites\*
- Repeatability for Credit\*
- Special Grading\*
- Alternate Year Courses- Odd/even designation based on the end of the academic year.  
Odd year 2012-2013  
Even year 2013-2014  
Every effort is made to accurately reflect the year(s) in which a course will be offered. However, the college reserves the right to adjust course scheduling as necessary.

\* See the section entitled "Academic Information and Policies" for more information.

Biology		3	4
<b>Agriculture</b>			
LOWER-DIVISION COURSES:			
<b>AGRI 212</b>	<b>Horse Greenhouse Gardening</b> The greenhouse as a solar energy source for the home. Growth and multiplication of plants for food and home beautification. One lecture and one laboratory per week.	2 W	
<b>AGRI 213</b>	<b>Organic Vegetable Gardening</b> Developing a home vegetable garden using all-natural methods for preparing, growing, maintaining, protecting, and harvesting garden crops. One lecture and one laboratory per week.	2 S	
<b>Biology</b>			
SERVICE COURSES: (Not applicable to a major or minor in this department)*			
<b>BIOL 101</b>	<b>Human Anatomy</b> Human structure as the expression of basic principles of morphology. Each functional system considered in terms of its cell, tissue, and organ types. Four lectures and one laboratory per week.	5 F, W	
<b>BIOL 102</b>	<b>Human Physiology</b> The function of human body systems, emphasizing the relationships among these systems; the role of each system in normal body function and health. Four lectures and one laboratory per week. Prerequisite: BIOL 101.	5 W, S	
<b>BIOL 105</b>	<b>Introduction to Biology</b> The organization and complexity of living organisms. The central questions of biology; the relationship between form and function, acquisition and use of energy, continuity between generations, and biodiversity. Enrollment limited to non-science majors; not available to students who have had a college biology course. Four lectures and one laboratory per week.	5 W	
<b>BIOL 225</b>	<b>Medical Terminology</b> The terminology of science and medicine.	2 S	
<b>BIOL 227</b>	<b>Natural History of California</b> Plants and animals of California as they relate to its diverse topography and geography. Three lectures and one laboratory per week.	4 S	
<b>BIOL 355</b>	<b>Issues on Origins</b> Scientific and biblical models regarding the origin and history of life. Special reference to the impact of origins philosophy on the interpretation of biological, geological, and paleontological evidence. Enrollment is limited to students in majors other than biology and environmental studies.	3 F	
<b>BIOL 355</b>	<b>Issues on Origins</b> Scientific and biblical models regarding the origin and history of life. Special reference to the impact of origins philosophy on the interpretation of biological, geological, and paleontological evidence. Enrollment is limited to students in majors other than biology and environmental studies.	3 F	
<b>BIOL 222</b>	<b>Introduction to Research Methods</b> The tools of biological research, including the choice of a model system, statistical tests, data recording and analysis, interpretation and presentation of experimental results, and the writing of research proposals. One lecture and one laboratory per week. Prerequisites: BIOL 111+112+113. Prerequisite or corequisite: STAT 222.	2 W	
<b>BIOL 233</b>	<b>Ecology</b> The interaction of physical and biological factors in maintaining balance within the ecosystem. Survey of world biomes and aquatic ecosystems. Laboratories examine and compare biotic communities and their structure. Three lectures and one laboratory per week. Prerequisite: BIOL 111+112+113.	4 F	
UPPER-DIVISION COURSES:			
<b>BIOL 320</b>	<b>Cellular and Molecular Biology</b> Composition, structure, and function of the cell and its organelles; emphasis on intracellular and intercellular communication and control principles. Prerequisites: BIOL 111+112+113; CHEM 371.	4 W	
<b>BIOL 111-112-113</b>	<b>Biological Foundations</b> An integrated foundation in life science principles for biology majors and preprofessional students in the biomedical sciences. Prerequisite to most biology courses with higher numbers. Should be taken in sequence. Four lectures and one laboratory per week. Prerequisite: A full year of biology with	5 • 5 • 5 F • W • S	

\* Exceptions: BIOL 102 is applicable to the B.S. in Natural Science, emphasis in Biology, and BIOL 227 is applicable to the B.S. in Environmental Studies.

## Course Information

### Prefix

The three- or four-letter prefix to each course number indicates the department or subject area as follows:

Prefix	Subject	Department	Page
ACCT	Accounting	Business Administration & Economics .....	64
AGRI	Agriculture	Biology .....	54
ANTH	Anthropology	Psychology & Social Work .....	172
ARTD	Graphic Design	Visual Arts .....	192
ARTF	Fine Art	Visual Arts .....	194
ARTH	History of Art	Visual Arts .....	196
ARTP	Photography	Visual Arts .....	197
ASTR	Astronomy	Physics & Engineering .....	165
AVIA	Aviation	Aviation .....	48
BIOL	Biology	Biology .....	54
BUAD	Business Administration	Business Administration & Economics .....	65
CHEM	Chemistry	Chemistry .....	73
CHIN	Chinese	Modern Languages .....	137
COMM	Communication	Communication .....	78
CPTR	Computer Science	Computer Science .....	83
DRMA	Dramatic Arts	English .....	108
ECED	Early Childhood Education	Education .....	94
ECON	Economics	Business Administration & Economics .....	66
EDUC	Education	Education .....	96
ELEC	Electronics	Aviation .....	50
EMER	Emergency Services	Nursing & Health Sciences .....	157
ENGL	English	English .....	108
ENGR	Engineering	Physics & Engineering .....	165
ENSL	English as a Second Language	English .....	112
ENVR	Environmental Studies	Biology .....	56
ESAC	Physical Education Activity	Exercise Science, Health, & Nutrition .....	115
ESTH	Physical Education Theory	Exercise Science, Health, & Nutrition.....	116
FDNT	Foods and Nutrition	Nursing & Health Sciences .....	157
FIN	Finance	Business Administration & Economics .....	67
FREN	French	Modern Languages .....	137
GEOG	Geography	History & Social Studies .....	121
GEOL	Geology	Biology .....	57
GNRL	General	Non-departmental Courses .....	46
GNST	General Studies	Academic Administration .....	46
GRMN	German	Modern Languages .....	137
GSCI	General Science	Biology .....	57
HIST	History	History & Social Studies .....	121
HLED	Health Education	Exercise Science, Health and Nutrition .....	118
HLTH	Health Sciences	Nursing & Health Sciences.....	158
HNRS	Honors	Honors Program .....	126
INFS	Information Systems	Business Administration & Economics .....	67
ITAL	Italian	Modern Languages .....	137
JOUR	Journalism	Communication .....	79
MATH	Mathematics	Mathematics .....	131
MDIA	Film & Television Production	Visual Arts .....	198

<b>Prefix</b>	<b>Subject</b>	<b>Department</b>	<b>Page</b>
MGMT	Management	Business Administration & Economics .....	68
MICR	Microbiology	Biology .....	57
MKTG	Marketing	Business Administration & Economics .....	69
MUED	Music Education	Music .....	142
MUEN	Music Ensemble	Music .....	144
MUHL	Music History and Literature	Music .....	144
MUSP	Music Performance	Music .....	145
MUTH	Music Composition and Theory	Music .....	146
NURS	Nursing	Nursing & Health Sciences .....	158
OFAD	Office Administration	Business Administration & Economics .....	70
PHIL	Philosophical Studies	Religion .....	180
PHYS	Physics	Physics & Engineering .....	166
PLSC	Political Science	History & Social Studies .....	124
PREL	Public Relations	Communication .....	80
PSYC	Psychology	Psychology & Social Work .....	172
RELB	Religion, Biblical Studies	Religion .....	180
RELH	Religion, Historical Studies	Religion .....	181
RELL	Religion, Biblical Languages	Religion .....	182
RELP	Religion, Applied Theology	Religion .....	182
RELT	Religion, Theological Studies	Religion .....	183
SOCI	Sociology	Psychology & Social Work .....	174
SOWK	Social Work	Psychology & Social Work .....	174
SPAN	Spanish	Modern Languages .....	138
SPPA	Speech Pathology and Audiology	Communication .....	80
STAT	Statistics	Mathematics .....	134

# General Courses

## General Courses

(Nondepartmental Courses)

LOWER-DIVISION COURSES:

### **GNRL 100** .1 F, W, S **Colloquy Speaker Series**

A regular gathering of the Pacific Union College community. Students, faculty, and staff meet to worship, learn and exchange ideas and information. Required for all undergraduate students each quarter (unless specially exempted). To pass, a student must attend a minimum of five meetings each quarter. Repeatable for credit. Graded S/F.

### **GNRL 104** 1 Su **Young Scholars Program**

A week-long program of course work, projects, and investigations in science, mathematics, humanities and the arts. Prerequisite: Admission to the Pacific-Quest summer program for talented and gifted students. Repeatable for credit. Graded S/F.

### **GNRL 204** 2 S **Introduction to Dentistry**

Dental anatomy, morphology, and related aspects of dentistry as a career. One lecture and one laboratory per week.

UPPER-DIVISION COURSE:

### **GNRL 350** 6 F, S **Field Experience**

Enrollment limited to students in the Pacific Union College Student Missionary and Task Force programs. Registration for the course must be completed before the experience begins and is limited to students who have previously taken courses at Pacific Union College. Consists of academic work that is done in connection with the service appointment, including a weekly journal, a reflective paper, and a public presentation. Registration qualifies students to maintain part-time enrollment status at the college during the fall and spring quarters. Further information is available at the Campus Ministries Office or from the registrar. Repeatable to a maximum of 12 credits. Qualifies for IP grading. Graded S/F.

## General Studies

LOWER-DIVISION COURSES:

### **GNST 104-105** 2-1 F, W, S **Student Seminar I-II**

GNST 104 examines the college learning process in academic areas and encourages skill development in strengths exploration, goal setting, learning styles, note taking and test-taking strategies. These and other topics related to learning and retaining college material are explored.

GNST 105 is designed to immediately follow GNST 104. Academic progress is tracked on a weekly, one-on-one basis, although one or more group sessions and tutorials may be required.

Registration for and successful completion of the sequence is required for freshmen who are admitted to Pacific Union College on academic probation and for current freshmen as soon as they are placed on academic probation.

### **GNST 201** 0.1 F, W, S **Assessment Seminar**

Designed for students graduating with an associate degree. Assesses student learning outcomes in general education and in the field of study so that the college may determine how well it is reaching its educational goals. May include a major field examination, other standardized examinations, an exit interview and various Pacific Union College-developed tests and surveys. Required for, and restricted to, students during their final quarter of residency for the A.S. program. Qualifies for IP grading.

UPPER-DIVISION COURSE:

### **GNST 401** 1 F, W, S **Senior Assessment Seminar**

Designed for baccalaureate seniors only. Assesses student learning outcomes in general education and in the field of study so that the college may determine how well it is reaching its educational goals. May include a major field examination, other standardized examinations, an exit interview and various Pacific Union College-developed tests and surveys. Required for, and restricted to, students during their final quarter of residency for the B.A., B.S., B.B.A., B.Mus., and B.S.W. programs. Qualifies for IP grading.



## Faculty

Kaye Varney, director

Departmental Office: Flight Center; 965-6219

## Degrees and Programs

Aviation, B.S. ....	47
Aviation, A.S. ....	48

The AVIATION PROGRAM prepares students for positions as private and commercial pilots, mission and medical pilots, and others. Training includes theory, ground and flight instruction leading to pilot certificates and ratings from Private Pilot through Commercial Pilot and Flight Instructor.

Students transferring into the aviation program with previously earned FAA certificates or ratings should apply to the Aviation Program director for course credit *at the time of initial registration*. Course credit for FAA certificates or ratings earned earlier at other locations is not available and will not be awarded after the student has begun aviation courses at Pacific Union College. A copy of FAA certificates must be presented to the departmental representative at the Flight Center. Grades issued in recognition of FAA certificate validations are recorded as “S” (Satisfactory). For complete aviation policies and procedures, consult the *Flight Policies and Procedures Handbook*, available at the Flight Center. For financial information about flight training, see the section entitled “Financial Information” in this catalog.

### Additional Fees:

Aviation students should expect and plan for approximately \$8,000 per year in airplane rental fees. They are advised to identify themselves to the Student Financial Services Office as aviation students to explore the possibility of financial assistance with this expense.

## Major in Aviation, B.S.

A minimum of 68 hours (33 upper-division hours)

### ► Required Core Courses (60 hours):

AVIA 172	Electronics and Fuel Systems	2
AVIA 173	Meteorology	3
AVIA 175	Private Pilot Theory	4
AVIA 176	Private Flight Training	2
AVIA 177	Intermediate Private Flight Training	2
AVIA 178	Advanced Private Flight Training	2
AVIA 275	Instrument Pilot Theory	4
AVIA 276	Instrument Flight Training	3
AVIA 278	Advanced Instrument Flight Training	4
AVIA 305	Aircraft Systems	4
AVIA 375	Commercial, ATP and CFI Theory	4
AVIA 376	Commercial Flight Training	2
AVIA 377	Intermediate Commercial Flight Training	2
AVIA 378	Advanced Commercial Flight Training	2
AVIA 379	Aerodynamics	2
AVIA 460	Professional Skills for Pilots	2
AVIA 470	Fundamentals of Flight Instruction	1
AVIA 471	Flight Instructor Flight Training	6
AVIA 476	Add-on Class Rating	2
AVIA 477	Human Factors in Aviation	2
AVIA 478	Add-on CFI Rating	2
ELEC 141	Applied Electronics	3

### ► Required Core Electives (8 hours):

<i>At least 8 hours from the following:</i>		8
AVIA 273	Practicum in Flight (1-6)	
AVIA 350	Mission Flying Theory and Practice (2)	
AVIA 450	Advanced Aircraft Systems (2)	
AVIA 472	Instrument Instructor Flight Training (3)	
AVIA 473	Advanced Practicum in Flight (1-6)	

### Recommended Minor:

A minor in Business Administration is recommended for aviation majors.

## Aviation

### Recommended Courses:

For students with a given interest, the following courses are recommended:

#### Mission Aviation:

ANTH 124, AVIA 350, COMM 330, EMER 101, PREL 337, RELH 311, RELP 235, 319, SOWK 121

#### Commercial Aviation:

AVIA 450, COMM 223, 330, ECON 261, 332, MGMT 261, 361, 465

### Recommended Field Experience:

It is recommended that all students majoring in Aviation should have completed, by the end of winter quarter of their senior year, 500 hours of flight time.

The objective of this program is to prepare graduates for such positions in the aviation industry as the following: mission pilots, company pilots, medical evacuation, teaching positions, pipeline patrol, border patrol, police, pilot training, forestry, fishing industry, air taxi operator, accident investigation, FAA specialist, major airline pilot, commuter airline pilot, cargo operations (FEDEX, UPS), fixed-base operator, traffic controller, and airport manager.

## Major in Aviation, A.S.

A minimum of 42 hours

### ► Required Core Courses (42 hours):

AVIA 172	Electronics and Fuel Systems	2
AVIA 173	Meteorology	3
AVIA 175	Private Pilot Theory	4
AVIA 176	Private Flight Training	2
AVIA 177	Intermediate Private Flight Training	2
AVIA 178	Advanced Private Flight Training	2
AVIA 275	Instrument Pilot Theory	4
AVIA 276	Instrument Flight Training	3
AVIA 278	Advanced Instrument Flight Training	4
AVIA 305	Aircraft Systems	4
AVIA 376	Commercial Flight Training	2
AVIA 377	Intermediate Commercial Flight Training	2
AVIA 378	Advanced Commercial Flight Training	2
AVIA 379	Aerodynamics	2
AVIA 476	Add-on Class Rating	2
AVIA 477	Human Factors in Aviation	2

## Minor in Aviation

A minimum of 30 hours (6 upper-division hours) to be selected, in consultation with the department chair, from the requirements listed for the major in Aviation.

## Aviation

### SERVICE COURSE:

(Not applicable to a major or minor in this department)

### AVIA 101

1 F, W, S

#### Introduction to Flight

An introduction to the elements and science of flight. Flight instruction on basic maneuvers of flight and landings. Survey of aircraft types, design considerations, and role applications. Brief history of aviation and its safety programs.

### LOWER-DIVISION COURSES:

### AVIA 172

2 W

#### Electronics and Fuel Systems

The components of the charging system, electrical storage, and starting systems. Battery-driven ignition systems, magnetos, engine combustion principles, and diagnosis of failures. Wiring, fuses, bus bar and grounding systems. Fuel systems section covers storage, fuel formulation, pumping, carburation, and electronic and mechanical fuel injection and turbo charging. Even years.

### AVIA 173

3 F

#### Meteorology

An introduction to the causes of weather phenomena and patterns. Meteorological theory, the best ways to obtain current weather reports and forecasts, how to interpret meteorological reports, how to predict changes in weather, how to recognize dangerous weather patterns, and how to react to difficult situations caused by adverse weather. For both pilots and nonpilots. Recommended corequisite: AVIA 175.



**AVIA 175** **4 F, S****Private Pilot Theory**

The theory necessary for safe flight in today's environment. Includes aerodynamics, the airspace system, aircraft performance and design, basic weather, maps, navigation, and aeromedical factors. Prepares the future private pilot for the FAA private pilot written exam. Corequisite: AVIA 176.

**AVIA 176** **2 Su, F, W, S****Private Flight Training**

Covers all flight training up through solo flight. Includes training in preflight, taxi, take-off, flight maneuvers, stalls, emergency procedures, normal and cross-wind landings, federal regulations, traffic procedures, and communications. Qualifies for IP grading.\*

**AVIA 177** **2 Su, F, W, S****Intermediate Private Flight Training**

Includes several hours of solo practice including take-offs, air maneuvers, and landings. Special training in short-field and soft-field take-offs and landings, emergency procedures, slips, diversions, and cross-country flying techniques with a certificated flight instructor. Prerequisite: AVIA 176. Qualifies for IP grading.\*

**AVIA 178** **2 Su, F, W, S****Advanced Private Flight Training**

Flight with reference to instruments, night flying, VOR navigation, filing flight plans, pilotage, dead reckoning, and preparation for the FAA Private Pilot oral and practical exam. Prerequisite: AVIA 177. Qualifies for IP grading.\*

**AVIA 273** **1-6 Su, F, W, S****Practicum in Flight**

Practice in cross-country flying as pilot-in-command to various destinations. Practice with cockpit management skills, aeronautical decision making, and pre-

flight planning. Prerequisite: AVIA 178. Repeatable to a maximum of 6 credits. Qualifies for IP grading.\*

**AVIA 275** **4 W****Instrument Pilot Theory**

From basic attitude instrument flying to getting around in the modern airspace system on an IFR flight plan. Preparation for the FAA instrument written examination and the instrument instructor written examination. Prerequisite: AVIA 175.

**AVIA 276** **3 Su, F, W, S****Instrument Flight Training**

Basic attitude instrument flying theory and skills. Developing proficiency in scan of the attitude instruments, interpretation of the instruments, and control of the aircraft with an additional work load that includes such factors as communications, copying clearances, using a timing device, and reading charts in flight. Also includes VOR and ADF navigation, DME arcs, and holding-patterns of all types. Prerequisite or corequisite: AVIA 175, 176, 177, 178. Qualifies for IP grading.\*

**AVIA 278** **4 Su, F, W, S****Advanced Instrument Flight Training**

Flight training includes precision and non-precision instrument approaches, cross-country instrument flying, and flight and ground preparation for the FAA Instrument Rating oral and practical exam. Prerequisite: AVIA 276. Qualifies for IP grading.\*

## UPPER-DIVISION COURSES:

**AVIA 305** **4 W****Aircraft Systems**

Major aircraft systems on both small and large aircraft, including theory and troubleshooting techniques. Includes engine theory, propellers, governors, hydraulics, pneumatics, anti-ice and de-ice systems, pressurization, flight controls

and landing gear. Special emphasis on turbine engine theory and systems for transition to large transport category aircraft. Prerequisite: AVIA 175. Even years.

**AVIA 350** **2 S****Mission Flying Theory and Practice**

Advanced mountain flying, operations at small unimproved airports, high altitude operations, and advanced short field landing techniques. Prerequisite: AVIA 476. Qualifies for IP grading.\* Odd years.

**AVIA 375** **4 S****Commercial, ATP, and Certificated Flight Instructor Theory**

Aircraft performance, weight and balance, theory of flight, the federal airspace system, air traffic control, and navigation. Prepares pilots for the Commercial Pilot-Airplane and Flight Instructor-Airplane FAA written exams. Prerequisites: AVIA 175, 275.

**AVIA 376** **2 Su, F, W, S****Commercial Flight Training**

Aircraft systems, performance, and procedures necessary for safely operating a multiengine aircraft. Prerequisite: AVIA 278. Qualifies for IP grading.\*

**AVIA 377** **2 Su, F, W, S****Intermediate Commercial Flight Training**

Become proficient in the maneuvers and skills required for the Private Multiengine practical exam. Special emphasis on in-flight emergencies. Prerequisite: AVIA 376. Qualifies for IP grading.\*

\* IP grades in AVIA courses must be completed within one quarter.

# Aviation

## **AVIA 378** **2 Su, F, W, S** **Advanced Commercial Flight Training**

A comprehensive review of aeronautical knowledge and flight maneuvers in preparation for the Commercial Pilot-Airplane oral and practical exam. Prerequisite: AVIA 377. Qualifies for IP grading.\*

## **AVIA 379** **2 W** **Aerodynamics**

Aerodynamics and aerodynamic devices used on various types of modern aircraft. Encompasses the basic concepts of flight as well as more advanced studies than a pilot would normally receive in preparation for pilot certificates. Recommended prior to commercial and flight instructor flight classes. Prerequisite: AVIA 175. Even years.

## **AVIA 450** **2 S** **Advanced Aircraft Systems**

Transport aircraft systems specializing in the CRJ, automatic flight controls, auxiliary power units, environmental control systems, and high altitude operations. Prerequisite: AVIA 305. Odd years.

## **AVIA 460** **2 W** **Professional Skills for Pilots**

Essential elements of being an aviation professional. Emphasizes professional etiquette, resume writing, business writing, interviews, job search, time management, and organizational skills. Prerequisite: AVIA 378. Odd years.

## **AVIA 470** **1 S** **Fundamentals of Flight Instruction**

Basic principles of education that may be applied to flight instruction. Practice ground instruction covering various private and commercial maneuvers. Discussion of the best teaching techniques and how to avoid pitfalls common to many students and flight instructors during

flight training. Required for instructor certification. Prerequisite: AVIA 278.

## **AVIA 471** **6 Su, F, W, S** **Flight Instructor Flight Training**

Flight training and practice teaching in preparation for flight-instructor certificate. Requires perfecting teaching techniques for the flight instructor. Includes comprehensive review of private and commercial aeronautical knowledge; flight maneuvering skill from the right-hand seat. Awareness of obligations and privileges of a certificated flight instructor. Mastery of FAA documentation and certification procedures. Prerequisites: AVIA 378. Qualifies for IP grading.\*

## **AVIA 472** **3 Su, F, W, S** **Instrument Instructor Flight Training**

Preparation for the instrument flight instructor oral and practical examination. Review of skills and procedures required for instrument rating. Develops instrument flight proficiency from the right-hand seat and instructional skills necessary for teaching an instrument student in flight and on the ground. Prerequisites: AVIA 471. Qualifies for IP grading.\*

## **AVIA 473** **1-6 Su, F, W, S** **Advanced Practicum in Flight**

Additional involvement in instruction or advanced flight operations. Advanced flight operations include; night operations, IFR operations, and Class B operations. Special reports or research projects may be required in conjunction with these assignments. Prerequisite: AVIA 273. Repeatable to a maximum of 6 credits. Qualifies for IP grading.\*

## **AVIA 476** **2 Su, F, W, S** **Add-on Class Rating**

Instruction in aircraft systems, maneuvers, and emergency procedures toward developing proficiency in an added class rating. Prepare students for the Add-on

Class Rating oral and practical exam. Prerequisites: AVIA 378 Qualifies for IP grading.\*

## **AVIA 477** **2 S** **Human Factors in Aviation**

The pilot's thought processes enabling detection and prevention of potentially hazardous aeronautical decision-making. Emergency procedure planning and crew resource management are role-played to promote teamwork and redundancy for multi-crew cockpits. Odd years.

## **AVIA 478** **2 Su, F, W, S** **Add-on CFI Rating**

Prepares the applicant to meet the experience requirements for an add-on to the instructor certificate. Review of private and commercial pilot aeronautical knowledge and flight skills in preparation for the Flight Instructor Add-on oral and practical exam. Prerequisite: AVIA 471. Qualifies for IP grading.\*

## Electronics

LOWER-DIVISION COURSE:

## **ELEC 141** **3 W** **Applied Electronics**

A non-mathematical approach to electronics. Electronic components and component combinations to make useful equipment. Experiments include building and testing burglar alarms, photo strobes, power supplies, light dimmers, intercom systems, electronic doorbells, timers, clocks, and other circuits. For the general student. Two lectures and one three-hour laboratory per week. Odd years.

\* IP grades in AVIA courses must be completed within one quarter.



## Faculty

*Robin Vance, chair; John Duncan, Floyd Hayes, Bryan Ness, Shelton Scott Herbert, Backil Sung, Aimee Wyrick*

*Departmental Office: 121 Clark Hall; 965-6635*

## Degrees and Programs

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Biology, B.A. ....	52
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Natural Science, B.S. ....	53
Teaching Credential.....	53

Biologists seek to understand the complexity of the living world through observation and experiment. By offering course work and laboratory experience concerning microorganisms, plants, animals (including humans), and the interrelationships among these living things, the BIOLOGY DEPARTMENT encourages the student to consider the study of life an exciting and continuing challenge, whether at the level of molecules, cells, organisms, populations, or ecosystems.

The biology major prepares students for careers in the practice or teaching of the life sciences, for graduate study, or for entering professional schools in dentistry, medicine, and veterinary medicine.

The biology curriculum may be enriched by research (BIOL 412) either on or off campus.

## Major in Biology, B.S.

*A minimum of 100 hours (52 upper-division hours)*

### ► Required Core Courses (40 hours):

BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 222	Introduction to Research Methods	2
BIOL 233	Ecology	4
BIOL 320	Cellular and Molecular Biology	4
BIOL 348	Systems Physiology	5
BIOL 354	Genetics	4
BIOL 396	Seminar (4 quarters)	.5+.5+.5+.5
BIOL 450	Philosophy of Origins	4

### ► Required Core Electives (21 hours):

*At least 21 hours from the following:* 21

BIOL 323	Vertebrate Biology (4)
BIOL 325	Flowering Plants (3)
BIOL 328	Animal Behavior (4)
BIOL 331	Marine Science (4)
BIOL 338	Field Biology (3)
BIOL 366	Medical Microbiology (5)
BIOL 412	Research in Biology (1-3)
BIOL 419	Developmental Biology (3)
BIOL 422	Advanced Human Anatomy (4)
BIOL 426	Histology (5)
BIOL 430	Neurobiology (4)
BIOL 445	Biotechnology (3)
BIOL 469	Immunology (4)
CHEM 481	Biochemistry I (4)
ENVR 360/L	Conservation Biology & Laboratory (4)

### ► Required Cognate Courses (39 hours):

CHEM 111+112+113	General Chemistry	5+5+5
CHEM 371+372+373	Organic Chemistry	4+4+4
PHYS 111+112+113	General Physics	4+4+4

# Biology

## Recommended Cognate Courses:

CHEM 481	Biochemistry I (4)
MATH 131	Calculus I (4)

## Pre-medical and pre-dental students:

The B.S. degree curriculum, including recommended cognates, exceeds all undergraduate science requirements for pre-medical and pre-dental students applying to Loma Linda University and many other schools.

## Major in Biology, B.A.

A minimum of 88 hours (40 upper-division hours)

Required core courses and cognate courses are the same as those for the B.S. degree. Core electives: Select 9 hours in biology from the core electives listed above for the B.S. degree. BIOL 412 is not applicable toward the B.A. degree.

## Major in Environmental Studies, B.S.

A minimum of 91 hours (30 upper-division hours)

### ► Required Core Courses (61 hours):

BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 222	Introduction to Research Methods	2
BIOL 233	Ecology	4
BIOL 450	Philosophy of Origins	4
CHEM 111+112+113	General Chemistry	5+5+5
ENVR 360	Conservation Biology	3
ENVR 360L	Conservation Biology Laboratory	1
ENVR 361	Energy & Climate Change	3
ENVR 361L	Energy & Climate Change Laboratory	1
ENVR 362	Pollution & Environmental Quality	3
ENVR 362L	Pollution & Environmental Quality Laboratory	1
ENVR 396	Seminar (4 quarters)	.5+.5+.5+.5
ENVR 450	Internship	4
RELT 240	Eco-theology	3

### ► Required Core Electives (30 hours):

At least 30 hours from the following:		30
AGRI 212	Home Greenhouse Gardening (2)	
AGRI 213	Home Vegetable Gardening (2)	
BIOL 227	Natural History of California (4)	
BIOL 323	Vertebrate Biology (4)	
BIOL 325	Flowering Plants (3)	
BIOL 328	Animal Behavior (4)	
BIOL 331	Marine Science (4)	
BIOL 338	Field Biology (3)	
BIOL 366	Medical Microbiology (5)	

CHEM 324+324L	Analytical Chemistry I (3+2)
CHEM 325+325L	Analytical Chemistry II (3+2)
CHEM 371+372+373	Organic Chemistry (4+4+4)
CHEM 451+452	Physical Chemistry (3+3)
CHEM 450L	Physical Chemistry Laboratory (1)
ENVR 412	Research in Environmental Studies (1-3)
GEOL 233	Geology (4)
MATH 131+132	Calculus I,II (4+4)
PHYS 111+112+113	General Physics (4+4+4)

## Recommended courses for students interested in specific areas:

The following courses are recommended to help students become better prepared for a job or for graduate school in more specialized areas of environmental studies. These courses are not intended to provide students with the specific skills required for a job.

### Air Quality:

CHEM 324+324L, 325+325L, 371+372+373, 450L, 451+452, MATH 131+132, PHYS 111+112+113

### Conservation Biology:

BIOL 227, 323, 325, 328

### Energy:

CHEM 324, 324L, 325, 325L, 371+372+373, 450L, 451+452, GEOL 233, MATH 131+132, PHYS 111+112+113

### Environmental Economics:

ACCT 121+122+123, ECON 261, 265, MATH 131+132

### Environmental Policy:

PLSC 124, 274, SOWK 232

### Marine Resources:

BIOL 331

### Solid Waste Management:

CHEM 324, 324L, 325, 325L, 371+372+373, 450L, 451+452, PHYS 111+112+113

### Water Management:

BIOL 366, CHEM 324, 324L, 325, 325L, 371+372+373, 450L, 451+452+453, MATH 131+132, MICR 134, PHYS 111+112+113

### Wildlife Management:

BIOL 227, 323, 328, 403

## Major in Natural Science, B.S. Biology Emphasis

*A minimum of 100 hours (26 upper-division hours)*

This major provides appropriate preparation for teaching science at the secondary level. The core requirement of 65 quarter hours of course work corresponds to science subjects commonly taught in California public schools, and the emphasis treats the subject matter at a depth more than adequate for teaching the higher secondary science courses in biology. Emphases may also be obtained in chemistry or physics. For further information, see the sections entitled "Chemistry" and "Physics" in this catalog.

### ► Required Core Courses (65 hours):

ASTR 115	Astronomy	5
ASTR 173	Meteorology	1
BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 331	Marine Science	4
BIOL 355	Issues on Origins	3
CHEM 111+112+113	General Chemistry	5+5+5
GEOL 233	Geology	4
PHYS 390	History and Philosophy of Science	3

*At least one of the following courses:* 3

ENVR 360	Conservation Biology (3)
ENVR 361	Energy & Climate Change (3)
ENVR 362	Pollution & Environmental Quality (3)

*One of the following sequences:* 4+4+4

PHYS 111+112+113	General Physics (4+4+4)
PHYS 211+212+213	Physics with Calculus (4+4+4)

### Biology Emphasis (35-36 hours)

#### ► Required Core Courses: (27-28 hours):

BIOL 233	Ecology	4
BIOL 320	Cellular and Molecular Biology	4
BIOL 354	Genetics	4
BIOL 396	Seminar (4 quarters)	.5+.5+.5+.5
MICR 134	General Microbiology	5

*At least one of the following courses:* 5

BIOL 102	Human Physiology (5)
BIOL 348	Systems Physiology (5)

*At least one of the following courses:* 3-4

BIOL 323	Vertebrate Biology (4)
BIOL 325	Flowering Plants (3)

#### ► Required Cognate Courses (8 hours):

CHEM 102	Survey of Organic Chemistry	4
CHEM 103	Survey of Biochemistry	4

## Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in science with a concentration in biology should take the B.S. degree in Natural Science, Biology Emphasis. Students will need to pass the science (biology concentration) portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the Biology Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the section entitled "Education" in this catalog.

## Minor in Biology

*A minimum of 30 hours (12 upper-division hours)*

### ► Required Courses (18 hours):

BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 355	Issues on Origins	3

### ► Required Electives (12 hours):

*At least 12 hours from the following (9 upper-division):* 12  
Additional non-service BIOL courses

## Minor in Environmental Studies

*A minimum of 31 hours (12 upper-division hours)*

### ► Required Courses (31 hours):

BIOL 233	Ecology	4
ENVR 360	Conservation Biology	3
ENVR 360L	Conservation Biology Laboratory	1
ENVR 361	Energy & Climate Change	3
ENVR 361L	Energy & Climate Change Laboratory	1
ENVR 362	Pollution & Environmental Quality	3
ENVR 362L	Pollution & Environmental Quality Laboratory	1

*At least one of the following sequences:* 15

BIOL 111+112+113	Biological Foundations (5+5+5)
CHEM 111+112+113	General Chemistry (5+5+5)

# Biology

## Agriculture

### LOWER-DIVISION COURSES:

#### **AGRI 212** **2 W** **Home Greenhouse Gardening**

The greenhouse as a solar energy source for the home. Growth and multiplication of plants for food and home beautification. One lecture and one laboratory per week.

#### **AGRI 213** **2 S** **Organic Vegetable Gardening**

Developing a home vegetable garden using all-natural methods for preparing, growing, maintaining, protecting, and harvesting garden crops. One lecture and one laboratory per week.

## Biology

### SERVICE COURSES:

*(Not applicable to a major or minor in this department)\**

#### **BIOL 101** **5 F, W** **Human Anatomy**

Human structure as the expression of basic principles of morphology. Each functional system considered in terms of its cell, tissue, and organ types. Four lectures and one laboratory per week.

#### **BIOL 102** **5 W, S** **Human Physiology**

The function of human body systems, emphasizing the relationships among these systems; the role of each system in normal body function and health. Four lectures and one laboratory per week. Prerequisite: BIOL 101.

\* *Exceptions: BIOL 102 is applicable to the B.S. in Natural Science, emphasis in Biology, and BIOL 227 is applicable to the B.S. in Environmental Studies.*

#### **BIOL 105** **5 W** **Introduction to Biology**

The organization and complexity of living organisms. The central questions of biology: the relationship between form and function, acquisition and use of energy, continuity between generations, and biodiversity. Enrollment limited to non-science majors; not available to students who have had a college biology course. Four lectures and one laboratory per week.

#### **BIOL 223** **2 S** **Medical Terminology**

The terminology of science and medicine.

#### **BIOL 227** **4 S** **Natural History of California**

Plants and animals of California as they relate to its diverse topography and geography. Three lectures and one laboratory per week.

#### **BIOL 355** **3 F** **Issues on Origins**

Scientific and biblical models regarding the origin and history of life. Special reference to the impact of origins philosophy on the interpretation of biological, geological, and paleontological evidence. Enrollment is limited to students in majors other than biology and environmental studies.

### LOWER-DIVISION COURSES:

#### **BIOL 111+112+113** **5+5+5 F+W+S** **Biological Foundations**

An integrated foundation in life science principles for biology majors and preprofessional students in the biomedical sciences. Prerequisite to most biology courses with higher numbers. Should be taken in sequence. Four lectures and one laboratory per week. Prerequisite: A full year of biology with

semester grades of C- or better at the secondary level or BIOL 105.

*BIOL 111:* The cell as the structural and functional unit of life; organelles and their functions; structure and function of essential biomolecules; and an introduction to molecular genetics. Prerequisite: CHEM 101 or CHEM 111

*BIOL 112:* Mendelian genetics, biodiversity, ecology, and evolution.

*BIOL 113:* The form and function of plants and animals.

#### **BIOL 222** **2 W** **Introduction to Research Methods**

The tools of biological research, including the choice of a model system, statistical tests, data recording and analysis, interpretation and presentation of experimental results, and the writing of research proposals. One lecture and one laboratory per week. Prerequisites: BIOL 111+112+113. Prerequisite or corequisite: STAT 222.

#### **BIOL 233** **4 F** **Ecology**

The interaction of physical and biological factors in maintaining balance within the ecosystem. Survey of world biomes and aquatic ecosystems. Laboratories examine and compare biotic communities and their structure. Three lectures and one laboratory per week. Prerequisite: BIOL 111+112+113.

### UPPER-DIVISION COURSES:

#### **BIOL 320** **4 W** **Cellular and Molecular Biology**

Composition, structure, and function of the cell and its organelles; emphasis on intracellular and intercellular communication and control principles. Prerequisites: BIOL 111+112+113; CHEM 371.

**BIOL 323** **4 W**  
**Vertebrate Biology**

Biology of the vertebrates, including their relationship to the physical environment and to other species and their social and reproductive patterns. The laboratory emphasizes the vertebrates in northern California. Three lectures and one laboratory per week. Prerequisite: BIOL 111+112+113.

**BIOL 325** **3 S**  
**Flowering Plants**

Structure and function of typical flowering plants; methods of collecting, analyzing, identifying, and preserving representative specimens. Significance of flowering plants to culture and health. Two lectures and one laboratory per week. Prerequisite: BIOL 113 or BIOL 227.

**BIOL 328** **4 S**  
**Animal Behavior**

Diversity of animal behavior including instinct, learning, communication, socio-biology, and the genetic, physiological, and ecological aspects of behavior. Three lectures and one laboratory per week. Prerequisite: BIOL 111+112+113 or consent of the instructor.

**BIOL 331** **4 F**  
**Marine Science**

Introduction to oceanography, marine life, and humanity's impact on the marine environment. Three lectures and one laboratory per week. Prerequisites: BIOL 111+112+113 or consent of the instructor.

**BIOL 338** **3 Arranged**  
**Field Biology**

Study of the diversity of organisms in marine, freshwater and terrestrial ecosystems of a selected region. Offered under different subtitles and at different locations. Includes classroom lectures, laboratory, and extensive field exercises as part of a study tour during an academic break. Requires additional cost for study tour and includes travel during an academic break. Contact the Biology Department for further information. Qualifies for IP grading.

**BIOL 348** **5 F**  
**Systems Physiology**

Functions of the nervous, muscular, endocrine, cardiovascular, respiratory, renal, and reproductive systems with emphasis on regulatory mechanisms and integration. Examines processes used by animals in adjusting to their external environment and controlling their internal environment. Laboratories involve firsthand analysis of selected aspects of the major functional systems. Four lectures and one laboratory per week. Prerequisites: BIOL 111+112+113 or BIOL 101+102.

**BIOL 354** **4 S**  
**Genetics**

Genetics of bacteria, plants, and animals. Chromosome mapping, population and evolutionary genetics, prokaryotic and eukaryotic genetic control, and molecular genetics. Emphasis on the study of modern molecular genetic techniques and concepts. Three lectures and one laboratory per week. Prerequisites: BIOL 111+112+113, 320.

**BIOL 366** **5 W**  
**Medical Microbiology**

Major groups of bacteria, viruses, and fungi that are pathogens or normal flora of humans. Laboratory work emphasizes the culture, characterization, and identification of unknown bacteria of medical importance. Four lectures and one laboratory per week. Prerequisite: BIOL 111+112+113 or MICR 134.

**BIOL 395** **1-3 Arranged**  
**Special Topics in Biology**

Additional laboratory or library studies correlated with biology courses.

**BIOL 396** **.5 F, W, S**  
**Seminar**

(See also CHEM 396, CPTR 396, ENVR 396, PHYS 396)

Topics of current interest in the natural sciences are presented and discussed. Biology majors are required to enroll in the course two out of three quarters in each of their junior and senior years. Credit earned only during the junior and senior years counts toward the Seminar requirement for a degree in biology. Repeatable to a maximum of 2 credits. Graded S/F.

**BIOL 412** **1-3 F, W, S**  
**Research in Biology**

Original investigation in selected areas of biology. The research topic is selected and the work done under direction of a faculty advisor. Scholarly presentation of research results is encouraged. Prerequisites: BIOL 111+112+113, 222 and permission of the instructor. Repeatable to a maximum of 6 credits applied to the Biology major. Graded S/F. Qualifies for IP grading.

# Biology

## **BIOL 419** **3 F** **Developmental Biology**

Principles of animal development and its molecular basis in selected model organisms. Cell communication and differentiation, embryonic induction, pattern formation, morphogenesis, and the genetic control of development. Prerequisites: BIOL 111+112+113, 320, 354.

## **BIOL 422** **4 S** **Advanced Human Anatomy**

Intensive study of the structure of the human body. The laboratory requires extensive cadaver dissection. Two lectures and two laboratories per week. Prerequisite: BIOL 111+112+113 or BIOL 101 with a grade of B or better.

## **BIOL 426** **5 W** **Histology**

Microscopic structure of the fundamental tissues and organs of humans and other mammals with functional correlations. Three lectures and two laboratories per week. Prerequisite: BIOL 111, 112, 113. Recommended prerequisite: BIOL 320.

## **BIOL 430** **4 F** **Neurobiology**

The neural basis of behavior with emphasis on the human nervous system. Includes cellular approaches to neural function, neuroanatomy, development of neurons and circuits, and neuroendocrine mechanisms. Three lectures and one laboratory per week. Prerequisite: BIOL 111+112+113. Recommended prerequisite: BIOL 348.

## **BIOL 445** **3 F** **Biotechnology**

Advanced molecular genetics techniques, including isolation of DNA, cloning, PCR and DNA sequencing. Ethics and politics of genetic testing, cloning, gene therapy, stem cell research, and transgenic organisms. Two lectures and one laboratory per week. Prerequisite: BIOL 354.

## **BIOL 450** **4 W** **Philosophy of Origins**

Historical and current issues relating to special creation and evolution models of origins. Biological, geological, and paleontological evidence and potential explanations along with the theological and scientific implications of various interpretations. Limited to students with senior standing majoring in biology and environmental studies. Applies to the Science and Society general education requirement. Prerequisite: BIOL 111+112+113.

## **BIOL 469** **4 S** **Immunology**

The lymphoid system and its response to foreign substances by humoral or cellular mechanisms that may protect or injure the host. Immunogens, immunoglobulins, complement, antigen-antibody reactions, phagocytosis, inflammation, immediate and delayed allergy, autoimmunity, and the immunology of transplantation, cancer and tolerance. Three lectures and one laboratory per week. Prerequisites: BIOL 111+112+113, 320

## **BIOL 495** **1-3 Arranged** **Independent Study**

Properly qualified students in biology whose scholarship is of outstanding quality may undertake a limited amount of individual investigation. Repeatable to a maximum of 6 credits.

## Environmental Studies

### UPPER-DIVISION COURSES:

## **ENVR 360** **3 F** **Conservation Biology**

Conservation ethics, population biology, biodiversity, threats to biodiversity, conserving biodiversity, and the interplay of human populations, economics, and politics. Required corequisite for biology majors and minors and for environmental studies majors and minors: ENVR 360L.

## **ENVR 360L** **1 F** **Conservation Biology Laboratory**

Laboratory activities coordinated with ENVR 360. Prerequisite: BIOL 111+112+113.

## **ENVR 361** **3 W** **Energy and Climate Change**

Fossil fuels, alternative energy sources, energy conservation, energy politics, atmosphere and climate, natural climate changes, and global warming. Required corequisite for environmental studies majors and minors: ENVR 361L.

## **ENVR 361L** **1 W** **Energy and Climate Change Laboratory**

Laboratory activities coordinated with ENVR 361. Prerequisite: BIOL 111+112+113.

## **ENVR 362** **3 S** **Pollution and Environmental Quality**

Air pollution, ozone depletion, acid rain, water quality, water pollution, wastewater treatment, solid waste management, food production, pest control, and various environmental hazards. Required corequisite for environmental studies majors and minors: ENVR 362L.



**ENVR 362L** **1 S**  
**Pollution and Environmental Quality Laboratory**

Laboratory activities coordinated with ENVR 362. Prerequisite: BIOL 111+112+113.

**ENVR 396** **.5 F, W, S**  
**Seminar**

(See also BIOL 396, CHEM 396, CPTR 396, PHYS 396)

Topics of current interest in the natural sciences are presented and discussed. Environmental studies majors are required to enroll in the course two out of three quarters in each of their junior and senior years. Credit earned only during the junior and senior years counts toward the Seminar requirement for a degree in environmental studies. Repeatable to a maximum of 2 credits. Graded S/F.

**ENVR 412** **1-3 F, W, S**  
**Research in Environmental Studies**

Original investigation in selected areas of environmental studies. The research topic is selected and the work done under direction of a faculty advisor. Scholarly presentation of research results is encouraged. Prerequisites: BIOL 222 and permission of the instructor. Repeatable to a maximum of 6 credits. Graded S/F.

**ENVR 494** **1-4 F, W, S**  
**Internship**

Volunteer service or employment with an environmental government agency or non-government organization. Intended to provide students with experience relevant to future employment or graduate studies. A report must be submitted summarizing duties performed and skills learned. Prerequisite: Permission of the instructor. Repeatable to a maximum of 4 credits. Graded S/F.

## Geology

LOWER-DIVISION COURSE:

**GEOL 233** **4 F**  
**Geology**

The materials, structure, and internal conditions of the earth; the physical and chemical processes at work upon it. Three lectures and one laboratory per week.

## General Science

SERVICE COURSE:

*(Not applicable to a major or minor in this department)*

**GSCI 205** **3 F, S**  
**Scientific Discoveries**

Major developments in biology, chemistry, and physics that have led to new ways of thinking in the sciences, with a synthesis of modern scientific thought and methods. Enrollment is limited to students in programs other than the natural sciences. Prerequisite: MATH 095 or equivalent.

## Microbiology

SERVICE COURSE:

*(Not applicable to a major or minor in this department)\**

**MICR 134** **5 F, S**  
**General Microbiology**

An introduction to microorganisms—the bacteria, viruses, and fungi; the usefulness of microorganisms in nature and manufacturing; pathogenesis and immunity. Consideration of each major infectious disease with respect to its causative agent, characteristics, diagnosis, transmission, and prevention. Four lectures and one laboratory per week.

\* *Exception: MICR 134 is applicable to the B.S. in Natural Science, emphasis in Biology.*





**Faculty**

*Rodney Hardcastle, chair; David Bell, Wally Lighthouse, Keith Neergaard, John Nunes, Lary Taylor, Marcia Toledo*  
 Departmental Office: 317 Irwin Hall; 965-6238

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The degree programs offered by the BUSINESS ADMINISTRATION & ECONOMICS DEPARTMENT are fully accredited by the International Assembly for Collegiate Business Education (IACBE). As part of a Seventh-day Adventist college, the department intends not only to prepare students to successfully meet the everyday challenges of a career in business, but also to prepare its graduates to give effective Christian influence in their communities. To meet these goals, the department offers several programs of study:

The B.B.A. (Bachelor of Business Administration) is a professional degree designed for the student who intends to enter the job market upon completing the four-year program or to be well prepared for graduate studies. This program offers the following emphases: Accounting, Finance, General Business, Information Systems, International Business, Management, and Marketing.

The B.A. (Bachelor of Arts) degree program in Business Administration is a traditional curriculum for those interested in taking a program that includes the study of a foreign language. This major affords more flexibility in course selection than do the B.B.A. and the B.S.

The B.S. (Bachelor of Science) in Business Administration is a degree designed for those who plan to enter a postgraduate or graduate program, specifically, in medicine, law, dentistry, or business. Since most graduates of such professional programs will ultimately have their own business, this degree is particularly useful for them.

The department also offers a two-year A.S. (Associate of Science) degree in Business Administration. The A.S. curriculum is structured so that a student may continue to complete any bachelor’s program in Business Administration.

The preparation offered in the four-year programs (B.B.A., B.S., and B.A.) differs considerably. However, the first two years are similar enough so that in the process of choosing a field for concentration students have ample time to explore a variety of professions in consultation with departmental faculty and others. Many opportunities and avenues for service are thus available to students majoring in business.

## Bachelor of Business Administration, B.B.A.

A minimum of 104 hours (58 upper-division hours)

### ► Required Core Courses (64-67 hours):

ACCT 121	Financial Accounting I	3
ACCT 122	Financial Accounting II	4
ACCT 123	Managerial Accounting	3
ACCT 391	Accounting Systems in Small Businesses	2
BUAD 279	Business Comm & Data Presentation	3
BUAD 325	Business Law I	3
BUAD 326	Business Law II	3
BUAD 490	Seminar in Business	1
ECON 261	Macroeconomics	4
ECON 265	Microeconomics	4
FIN 341	Finance	5
MGMT 361	Management	4
MGMT 465	Organizational Behavior	3
MGMT 491	Strategic Management	3
MKTG 351	Marketing	4
OFAD 111	Personal/Beginning Keyboarding	0-2**
STAT 222	Introduction to Statistics	4
STAT 322	Statistical Methods	3

At least one of the following courses: 4-5

MATH 106	College Algebra (4)
MATH 130	Precalculus (5)
MATH 131	Calculus I (4)

At least three courses and 4 hours from the following: 4

INFS 144	PC Operating Systems (1)
INFS 148	PC Spreadsheets (1)
INFS 149	PC Databases (1)
OFAD 201	PC Word Processing (2)

### Recommended Supporting Courses:

BUAD 118	Personal Money Management (3)
BUAD 223	Personal Law (2)

\* Courses used to fulfill requirements in these sections may not also fulfill requirements in another emphasis or business program.

\*\* This requirement may be met by completion of course or satisfactory performance on departmental waiver examination. The waiver option is available only to students with fewer than 75 credit hours or to transfer students if taken within their first year at Pacific Union College.

### ► Emphases (choose one):

#### 1. Accounting Emphasis (39-40 hours)

ACCT 307	Government & Nonprofit Accounting	3
ACCT 311+312+313	Intermediate Accounting	3+3+3
ACCT 321+322	Cost Accounting I,II	3+3
ACCT 341	Individual Taxation	4

At least 14 hours from the following: 14\*

ACCT 343	Business Taxation (4)
ACCT 345	Estate Planning, Gifts & Trust Tax (3)
ACCT 451	Advanced Accounting (3)
ACCT 453	Auditing (5)
ACCT 461	Accounting Theory (4)
BUAD 329	Fraud Examination (3)
MGMT 328	Management Information Systems (3)

Additional hours from the following: 3-4\*

Additional hours (at least 3 upper-division hours) from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).

#### Recommended Courses:

BUAD 434	Entrepreneurship (3)
INFS 377	Electronic Commerce (3)

#### 2. Finance Emphasis (39-40 hours)

ACCT 311+312+313	Intermediate Accounting	3+3+3
FIN 488	Problems in Finance	3
MGMT 466	Business and Society	3

At least 21 hours from the following: 21\*

BUAD 335	Real Estate (4)
BUAD 371	Insurance and Risk Management (3)
ECON 371	Money and Banking (3)
ECON 457	International Economics (3)
FIN 380	Capital Markets/Financial Institutions (3)
FIN 419	Personal Financial Planning (3)
FIN 436	Real Estate Finance (3)
FIN 444	Investments (3)
FIN 457	International Finance (3)
FIN 463	Financial Planning and Forecasting (3)

Additional hours from the following: 3-4\*

Additional hours (at least 3 upper-division hours) from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).

#### 3. General Business Emphasis (38-40 hours)

BUAD 434	Entrepreneurship	3
INFS 377	Electronic Commerce	3
MGMT 466	Business and Society	3

At least 9 hours from the following: 9  
 ACCT 311+312+313 Intermediate Accounting (3+3+3)  
 ACCT 321+322 Cost Accounting I,II (3+3)  
 ACCT 341 Individual Taxation (4)  
 ACCT 343 Business Taxation (4)  
 ACCT 345 Estate Planning, Gifts & Trust Tax (3)

Additional hours from the following: 22\*  
 A minimum of 22 hours (at least 9 upper-division hours) from the following areas with at least 6 hours in at least three of the areas: ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG.

**4. Information Systems Emphasis (40 hours)**

ACCT 322 Cost Accounting II 3  
 CPTR 115 Introduction to Computer Programming 4  
 INFS 149 PC Databases 1  
 INFS 229 Business Programming 3  
 INFS 377 Electronic Commerce 3  
 INFS 380 Database Analysis and Design 3  
 INFS 465 Fundamentals of Data Communication 3  
 INFS 470 Management Science 4  
 INFS 482 Systems Analysis and Design 4  
 MGMT 328 Management Information Systems 3  
 MKTG 371 Marketing Research 3

Additional hours from the following: 6\*  
 Additional hours (at least 4 upper-division hours) from ACCT, BUAD, CPTR, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).

*Recommended Courses:*

ACCT 311+312 Intermediate Accounting (3+3)  
 CPTR 131 Survey of Computer Science (4)

**5. International Business Emphasis (38-50 hours)**

ECON 457 International Economics 3  
 FIN 457 International Finance 3  
 MGMT 457 International Management 3  
 MGMT 466 Business and Society 3  
 MKTG 371 Marketing Research 3  
 MKTG 458 International Marketing 3

At least 9 hours from the following: 9  
 ACCT 311+312+313 Intermediate Accounting (3+3+3)  
 ACCT 321+322 Cost Accounting I,II (3+3)  
 ACCT 341 Individual Taxation (4)  
 ACCT 343 Business Taxation (4)  
 ACCT 345 Estate Planning, Gifts & Trust Tax (3)  
 ACCT 451 Advanced Accounting (3)

\* Courses used to fulfill requirements in these sections may not also fulfill requirements in another emphasis or business program.

Competence at the intermediate level in a language other than English. 0-12

This requirement may be met by one of the following options:  
 1. One-year sequence in college intermediate language course.  
 2. Study for a minimum of one quarter in a college abroad where classes are conducted in a foreign language. Successful completion of at least 12 quarter units with a grade equal to or higher than C.  
 3. Passing a competency test in a foreign language.  
 4. Graduation from a secondary school in a non-English-speaking country in which classes were conducted in the language of that country.

At least two courses from the following that complement, where possible, the foreign language: 6-8

ANTH 124 Cultural Anthropology (4)  
 COMM 330 Intercultural Communication (3)  
 GEOG 210 World Regional Geography (3)  
 HIST 332 Europe Since Napoleon (4)  
 HIST 358 Recent America (4)  
 HIST 412 Seminar in Asian History (4)

Additional hours from the following: 3-5\*  
 Additional hours (at least 3 upper-division hours) from ACCT, BUAD, FIN, ECON, INFS, MGMT, MKTG, and Modern Languages to total at least 104 hours in the major (core courses, emphasis and modern language courses).

**6. Management Emphasis (38-40 hours)**

MGMT 457 International Management 3  
 MGMT 466 Business and Society 3  
 MGMT 481 Operations Management 3

At least 12 hours from the following: 12\*

INFS 470 Management Science (4)  
 INFS 482 Systems Analysis and Design (4)  
 MGMT 328 Management Information Systems (3)  
 MGMT 472 Human Resources Management (3)  
 MGMT 473 Labor Law and Legislation (3)  
 MGMT 486 Supply Chain Management (3)

At least 9 hours from the following: 9  
 ACCT 311+312+313 Intermediate Accounting (3+3+3)  
 ACCT 321+322 Cost Accounting I,II (3+3)  
 ACCT 341 Individual Taxation (4)  
 ACCT 343 Business Taxation (4)  
 ACCT 345 Estate Planning, Gifts & Trust Tax (3)

Additional hours from the following: 8-10\*  
 Additional hours (at least 6 upper-division hours) selected from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).

## 7. Marketing Emphasis (38-40 hours)

MGMT 466	Business and Society	3
MKTG 360	Consumer Behavior	3
MKTG 371	Marketing Research	3
MKTG 374	Advertising	3
MKTG 481	Marketing Problems	3

At least 9 hours from the following: 9\*

INFS 377	Electronic Commerce (3)	
MKTG 372	Retailing Management (3)	
MKTG 377	Sales Management (3)	
MKTG 417	Services Marketing (3)	
MKTG 458	International Marketing (3)	

At least 6 hours from the following: 6

ACCT 311+312+313	Intermediate Accounting (3+3+3)	
ACCT 321+322	Cost Accounting I,II (3+3)	
ACCT 341	Individual Taxation (4)	
ACCT 343	Business Taxation (4)	
ACCT 345	Estate Planning, Gifts & Trust Tax (3)	

Additional hours from the following: 8-10\*

Additional hours (at least 4 upper-division hours) from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).

### ► General-Education Requirements:

The general-education requirements for the B.B.A. are the same as for the B.S. degree except for the changes described below:

1. Only one course is required for IV.B, to be chosen from either IV.B.1 (Visual Arts) or IV.B.2 (Music).
2. Only two courses are required from V.B (Science) and V.C (Applications of Scientific and Mathematical Reasoning). The courses must come from separate subsections and one course must include a laboratory.

## Major in Business Administration, B.A.

A minimum of 67 hours (34 upper-division hours)

### ► Required Core Courses (67-70 hours):

ACCT 121	Financial Accounting I	3
ACCT 122	Financial Accounting II	4
ACCT 123	Managerial Accounting	3
ACCT 391	Accounting Systems in Small Businesses	2
BUAD 279	Business Comm/Data Presentation	3
BUAD 325	Business Law I	3
BUAD 326	Business Law II	3
BUAD 490	Seminar in Business I	1
ECON 261	Macroeconomics	4
ECON 265	Microeconomics	4
FIN 341	Finance	5
MGMT 361	Management	4
MGMT 465	Organizational Behavior	3
MGMT 491	Strategic Management	3
MKTG 351	Marketing	4
OFAD 111	Personal/Beginning Keyboarding	0-2**
STAT 222	Introduction to Statistics	4
STAT 322	Statistical Methods	3

At least 3 hours from the following: 3\*

ACCT 307	Government and Nonprofit Accounting (3)	
ACCT 311	Intermediate Accounting (3)	
ACCT 321	Cost Accounting I (3)	
ACCT 341	Individual Taxation (4)	

At least three courses and 4 hours from the following: 4

INFS 144	PC Operating Systems (1)	
INFS 148	PC Spreadsheets (1)	
INFS 149	PC Databases (1)	
OFAD 201	PC Word Processing (2)	

At least one of the following courses: 4-5

MATH 106	College Algebra (4)	
MATH 130	Precalculus (5)	
MATH 131	Calculus I (4)	

### Recommended Supporting Courses:

BUAD 118	Personal Money Management (3)
BUAD 223	Personal Law (2)

\*\* This requirement may be met by completion of course or satisfactory performance on departmental waiver examination. The waiver option is available only to students with fewer than 75 credit hours or to transfer students if taken within their first year at Pacific Union College.

\* Courses used to fulfill requirements in these sections may not also fulfill requirements in another emphasis or business program.

**Major in Business Administration, B.S.**

*A minimum of 74 hours (40 upper-division hours)*

► **Required Core Courses (70-74 hours):**

ACCT 121+122	Financial Accounting I+ II	3+4
ACCT 123	Managerial Accounting	3
ACCT 391	Accounting Systems/Small Businesses	2
BUAD 325+326	Business Law I+II	3+3
BUAD 490	Seminar in Business	1
ECON 261	Macroeconomics	4
ECON 265	Microeconomics	4
FIN 341	Finance	5
MGMT 361	Management	4
MGMT 465	Organizational Behavior	3
MGMT 491	Strategic Management	3
MKTG 351	Marketing	4
OFAD 111	Personal/Beginning Keyboarding	0-2**
STAT 222	Introduction to Statistics	4
STAT 322	Statistical Methods	3

*At least one of the following courses:* 3-4

BUAD 335	Real Estate (4)
BUAD 434	Entrepreneurship (3)
FIN 419	Personal Financial Planning (3)
FIN 444	Investments (3)
INFS 470	Management Science (4)
MGMT 457	International Management (3)
MKTG 417	Services Marketing (3)
MKTG 458	International Marketing (4)

*At least 6 hours from the following:* 6

ACCT 311+312+313	Intermediate Accounting (3+3+3)
ACCT 321+322	Cost Accounting I,II (3+3)
ACCT 341	Individual Taxation (4)
ACCT 343	Business Taxation (4)
ACCT 345	Estate Planning, Gifts & Trust Tax (3)

*At least three courses and 4 hours from the following:* 4

INFS 144	PC Operating Systems (1)
INFS 148	PC Spreadsheets (1)
INFS 149	PC Databases (1)
OFAD 201	PC Word Processing (2)

*At least one of the following courses:* 4-5

MATH 106	College Algebra (4)
MATH 130	Precalculus (5)
MATH 131	Calculus I (4)

► **Required Core Electives (0-4 hours):** 0-4\*

Additional hours selected from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 74 hours in the major.

*Recommended Supporting Courses:*

BUAD 118	Personal Money Management (3)
BUAD 223	Personal Law (2)

**Major in Business Administration, A.S.**

*A minimum of 53 hours*

► **Required Core Courses (46 hours):**

ACCT 114	Small Business Accounting	3
ACCT 121	Financial Accounting I	3
ACCT 122	Financial Accounting II	4
ACCT 123	Managerial Accounting	3
ARTD 253	Publication Technology	3
BUAD 223	Personal Law	2
BUAD 279	Business Comm/Data Presentation	3
ECON 261	Macroeconomics	4
ECON 265	Microeconomics	4
ENGL 134	Review of English Syntax	1
INFS 144	PC Operating Systems	1
INFS 148	PC Spreadsheets	1
INFS 149	PC Databases	1
MATH 096	Basic Algebra II(or equivalent)	0
MGMT 160	Small Business Management	3
MGMT 261	Introduction to Management	3
MGMT 328	Management Information Systems	3
OFAD 121	Intermediate Keyboarding	2
OFAD 201	PC Word Processing	2

► **Required Core Electives (7 hours):** 7

Courses selected from ACCT, BUAD, ECON, FIN, INFS, MGMT, MKTG, and OFAD to total at least 54 hours in the major.

► **General-Education Requirements:**

The general-education requirements for the A.S. degree are listed in the section entitled "The Academic Program" in this catalog. ENGL 101 (College English), COMM 105 (Introduction to Communication), and PSYC 121 (General Psychology) are required for this A.S. degree and fulfill applicable general-education requirements.

\* Courses used to fulfill requirements in these sections may not also fulfill requirements in another emphasis or business program.

\*\* This requirement may be met by completion of course or satisfactory performance on departmental waiver examination. The waiver option is available only to students with fewer than 75 credit hours or to transfer students if taken within their first year at Pacific Union College.

## Teaching Credential

Students interested in teaching business-related subjects at the secondary level should consult with their advisor in the Business Administration & Economics Department and with the credential analyst in the Education Department. They may generally take any bachelor's degree program in business and the specific education courses required. They will then need to pass the PRAXIS and SSAT competency examinations to obtain the secondary teaching credential.

## Minor in Business Administration

*A minimum of 30 hours (9 upper-division hours)*

### ► Required Courses (18 hours):

ACCT 121	Financial Accounting I	3
ACCT 122	Financial Accounting II	4
ACCT 123	Managerial Accounting	3
ECON 261	Macroeconomics	4
ECON 265	Microeconomics	4

### ► Required Electives (12 hours):

*At least 12 hours (9 upper-division) from the following:* 12  
Additional ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses.

## Accounting

LOWER-DIVISION COURSES:

### ACCT 114 3 S Small Business Accounting

The accounting procedures and practices necessary for efficient and effective small business operation. Not applicable toward a baccalaureate major in the department. Credit may not be earned in both ACCT 114 and ACCT 391.

### ACCT 121 3 F, W Financial Accounting I

Accounting practices and procedures needed in various types of ownership entities for financial reporting. No prior accounting knowledge necessary.

### ACCT 122 4 W, S Financial Accounting II

A continuation of ACCT 121 with particular emphasis on the partnership and the corporate form of organization; income statement and balance sheet analysis. Three lectures and one laboratory per week. Prerequisite: ACCT 121.

### ACCT 123 3 S Managerial Accounting

Use of accounting data for managerial planning, control, and decision-making. Particular emphasis on entities which produce a product. Prerequisite: ACCT 121.

UPPER-DIVISION COURSES:

### ACCT 307 3 W Government and Nonprofit Accounting

Accounting principles and practices unique to state and local units, educational, health care, charity, religious, and other not-for-profit organizations. Financial reporting and record keeping. Prerequisite: ACCT 121, 122. Even years.

### ACCT 311+312+313 3+3+3 F+W+S Intermediate Accounting

Accounting theory and practice relating to the valuation and presentation of assets, liabilities, net worth, revenue, and expense accounts. Prerequisites: ACCT 121, 122.

### ACCT 321 3 F Cost Accounting I

Key concepts of cost planning and control. Includes c-v-p analysis, job costing, activity-based costing, budgeting and variances, cost behavior, strategic decision-making, and pricing. Prerequisites: ACCT 121, 122, 123; Recommended prerequisite: STAT 222.

### ACCT 322 3 W Cost Accounting II

Key concepts of cost planning and control. Includes balanced scorecard, cost allocation, joint products, process costing, inventory, capital budgeting, transfer pricing, and performance measurement. Prerequisite: ACCT 121, 122, 123.

### ACCT 341 4 W Individual Taxation

Federal income taxation and tax planning for individuals. Designed for non-majors as well as for business majors and minors.



**ACCT 343** **4 S**  
**Business Taxation**

Federal taxation and tax planning in relationship to corporations and partnerships.

**ACCT 345** **3 F**  
**Estate Planning, Gifts and Trust Taxation**

Federal taxation and tax planning for gifts, estates, and trusts. Odd years.

**ACCT 391** **2 S**  
**Accounting Systems in Small Businesses**

Setting up and maintaining accounting records for a variety of unincorporated businesses. Practice sets illustrate single-entry, double-entry, cash-basis, and hybrid cash-accrual-basis accounting systems; periodic financial statements, payroll, sales, and income-tax returns. Prerequisites: ACCT 121, 122.

**ACCT 451** **3 S**  
**Advanced Accounting**

Specialized topics including partnerships, branches, consolidated statements, segment reporting. Recommended prerequisites: ACCT 311+312. Odd years.

**ACCT 453** **5 W**  
**Auditing**

The independent auditor's functions; pronouncements of the American Institute of Certified Public Accountants. Prerequisites: ACCT 311+312+313; STAT 222.

**ACCT 461** **4 S**  
**Accounting Theory**

Survey of contemporary financial accounting theory. Emphasis on both current literature and official pronouncements. Prerequisites: ACCT 311+312+313.

**ACCT 495** **1-3 Arranged**  
**Independent Study**

Designed for students qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

**Business Administration**

## LOWER-DIVISION COURSES:

**BUAD 118** **3 F, W, S**  
**Personal Money Management**

Financial decisions facing individuals in society, including installment buying and borrowing, insurance, home ownership, saving, budgeting expenditures, investments, and trusts. Not available to business majors for business credit during the junior or senior year.

**BUAD 223** **2 F, S**  
**Personal Law**

Topics include dealing with an attorney, the court systems, crimes, torts, minors and the law, consumer law, landlord/tenant relationships, the legal responsibilities of owning a motor vehicle, employment relationships, and planning an estate. Not available to business majors for business credit during the junior or senior year.

**BUAD 279** **3 S**  
**Business Communication and Data Presentation**

Integrates presentation software with written and oral techniques for ethical communication in the business setting. Emphasis on effective presentation of a variety of documents. Prerequisites: ENGL 102, COMM 105.

## UPPER-DIVISION COURSES:

**BUAD 325** **3 F**  
**Business Law I**

A study of the legal system, with emphasis on common-law contracts, sales under Article II of the Uniform Commercial Code and negotiable instruments.

**BUAD 326** **3 W**  
**Business Law II**

The legal system in the United States, emphasizing agency relationships, business entities, government regulation and property.

**BUAD 329** **3 S**  
**Fraud Examination**

The principles of fraud detection and deterrence. Topics include the nature of fraud and the types of people who commit fraud, fraud investigation and types of fraudulent schemes, including a discussion of skimming, cash larceny, check tampering, register disbursement schemes, billing schemes, payroll and expense reimbursement schemes, non-cash misappropriations, corruption, and fraudulent financial statements. Odd years.

**BUAD 335** **4 F**  
**Real Estate**

The various aspects of real-estate principles, practices, and ownership. Preparation for the California licensing examination. Designed for the general student.

**BUAD 371** **3 F**  
**Insurance and Risk Management**

Recognition and evaluation of property, liability, and personal insurable risks facing a business firm, family, or other economic unit. Basic tools of risk management, loss prevention, selecting and dealing with an insurer and fire, marine, casualty, liability, life, and health insurance. Odd years.

# Business Administration & Economics

## **BUAD 434** **3 S** **Entrepreneurship**

A survey of what it takes to start and operate a business. Legal, managerial, accounting, marketing and financial aspects of getting a business up and running. Development of a business plan for startup. Even years.

## **BUAD 490** **1 F** **Seminar in Business**

A discussion of topics relating to the transition from student to worker, including personality typing, career choice, interviewing techniques, resume preparation, and interpersonal relations among supervisors, peers and subordinates. May be taken by sophomores with the permission of the instructor.

## **BUAD 493** **1-3 Arranged** **Special Topics**

An enrichment course treating specific topics not normally covered in the department's Accounting, Business Administration, Economics, Finance, Information Systems, Management, Marketing, and Office Administration courses. A specific title is given to the course when it is taught. Repeatable for credit under different titles.

## **BUAD 494** **0-1 F, W, S** **Internship**

Contract arrangement between student, faculty, and a cooperating organization or business that provides practical experience to tie in with the student's major. The internship may be taken for credit or no credit. Repeatable to a maximum of 2 credits towards a business major. Graded S/F.

## **BUAD 495** **1-3 Arranged** **Independent Study**

Designed for students who are qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

## **Economics**

### LOWER-DIVISION COURSES:

## **ECON 261** **4 F, S** **Macroeconomics**

An analysis of the structure and functioning of the economy in the United States. Concepts and tools of economics are used to study how decisions of individuals, businesses, and governments relate to growth, income, employment, and inflation.

## **ECON 265** **4 W, S** **Microeconomics**

An economic analysis of the workings of the market system in the United States. The factors that determine prices, costs, elasticity, utility, demand, supply, and the factors of production (land, labor, capital) when monopoly and pure competition exist and when conditions between these two models of competition exist.

### UPPER-DIVISION COURSES:

## **ECON 321** **3 S** **Managerial Economics**

Uses of primarily microeconomic theory in managerial decision-making. Prerequisite: ECON 265. Odd years.

## **ECON 332** **3 S** **Government and Business**

Government policies, regulations, and legislation that attempt to maintain competition in the economy and that affect the decisions and the operations of business organizations. Even years.

## **ECON 371** **3 W** **Money and Banking**

Money and the way it affects and is affected by central and commercial banking. Emphasis on the monetary policy of the Federal Reserve System. Prerequisite: ECON 261. Odd years.

## **ECON 457** **3 F** **International Economics**

Theory and principles of international trade and monetary and fiscal policies. Topics include comparative advantage, standard theory, H-O theory, imperfect competition, tariff and nontariff barriers, protectionism, and economic integration. Prerequisites: ECON 261, 265. Even years.

## **ECON 495** **1-3 Arranged** **Independent Study**

Designed for students who are qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

**Finance**

UPPER-DIVISION COURSES:

**FIN 341 Finance** **5 F**

Financial policies of corporations in the management of assets, liabilities, and owners' equity. Major topics include risk and return, time value of money, present value, capital budgeting, cost of capital, valuation, leverage, long-term financing, and working capital management. Prerequisites: ACCT 121, 122, 123; ECON 261, 265; INFS 148; STAT 222.

**FIN 380 Capital Markets and Financial Institutions** **3 S**

Evolution, structure, role, regulation and deregulation of financial institutions in the U.S. economy. Prerequisites: ECON 261, 265; FIN 341. Even years.

**FIN 419 Personal Financial Planning** **3 W**

Introduction to personal financial planning and its role in the financial services industry. Emphasis on developing, implementing, and monitoring personal financial plans. Credit may not be earned in BUAD 118 after FIN 419 is taken. Prerequisites: ACCT 341. Recommended prerequisite: FIN 341. Odd years.

**FIN 436 Real Estate Finance** **3 W**

Principles and methods of investing and financing in real estate. Sources of funds, qualifications of investors, property analysis, and settlement procedures. Prerequisites: ECON 261. Odd years.

**FIN 444 Investments** **3 S**

Investment alternatives and the development of rational objectives and investment philosophies. Topics include risks, returns, evaluation concepts, technical approaches, portfolio development, the efficient market hypothesis, and decisions relating to different types of investments. Recommended prerequisites: ECON 261, FIN 341. Even years.

**FIN 457 International Finance** **3 S**

Financial management in the international environment. Includes coverage of the IMS, foreign exchange, futures and options markets, managing exposure, banking, direct foreign investment, political risk, import/export operations, and working capital management. Recommended prerequisite: FIN 341. Odd years.

**FIN 463 Financial Planning and Forecasting** **3 W**

Planning and forecasting in financial management for business, government, and nonprofit organizations. Construction, analysis, and interpretation of financial plans. Prerequisite: FIN 341. Even years.

**FIN 488 Problems in Finance** **3 W**

Study and discussion of selected topics in finance through readings and case studies. Topics include working capital management, capital budgeting, financing decisions, dividend policy, cost of capital, and capital structure decisions. Prerequisite: FIN 341. Even years.

**FIN 495 Independent Study** **1-3 Arranged**

Designed for students qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

**Information Systems**

LOWER-DIVISION COURSES:

**INFS 144 PC Operating Systems** **1 W**

An introduction to the Microsoft Windows family of operating systems for PC's. File and folder manipulation, terminology, disaster prevention and recovery, performance optimization, network commands, and other routine computer work functions.

**INFS 148 PC Spreadsheets** **1 F, S**

Class/laboratory instruction in Microsoft Excel software for microcomputers, combining an electronic spreadsheet with graphics and a database system. Creating and modifying worksheets, graphs and macros.

**INFS 149 PC Databases** **1 F, W**

Class/laboratory instruction in Microsoft Access database management software for microcomputers. Topics include creating, maintaining, modifying and querying a database, and generating reports and labels.

**INFS 229** **3 W**  
**Business Programming**

An introduction to event-driven programming in the Windows environment using Visual Basic for Applications. Emphasis on building applications relevant to business. Prerequisite: CPTR 115. Odd years.

UPPER-DIVISION COURSES:

**INFS 377** **3 F**  
**Electronic Commerce**

Tools and technologies needed for participating in electronic commerce. Business opportunities, challenges, and strategies for leveraging the emerging national and global information infrastructure. Security, privacy, ethics, and business practices. Odd years.

**INFS 380** **3 W**  
**Database Analysis and Design**

Analysis and design of databases for business. File systems, database management functions, hierarchical, network, relational, and object-oriented data models. Normalization, SQL queries, entity-relationship diagramming. Issues in distributed databases and simultaneous access. Use of Corporate DBMS software. Prerequisite: INFS 149. Even years.

**INFS 465** **3 F**  
**Fundamentals of Data Communication**

Various methods of data communication: networking, telephony, communications hardware and software. Even years.

**INFS 470** **4 S**  
**Management Science**

Formal modeling approaches in managerial decision-making. Topics include linear programming, integer programming, decision-making under uncertainty, utility theory, queuing theory, Markov processes, network diagrams, and inventory models. Prerequisites: MATH 106, 130, or 131. Odd years.

**INFS 482** **4 S**  
**Systems Analysis and Design**

Concepts, skills, methodologies, techniques, tools, and perspectives essential for systems analysts to successfully develop information systems. Even years.

**INFS 495** **1-3 Arranged**  
**Independent Study**

Designed for students who are qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

## Management

LOWER-DIVISION COURSES:

**MGMT 160** **3 W**  
**Small Business Management**

Managerial considerations in owning and operating a small business. Not applicable toward a baccalaureate major or minor in the department.

**MGMT 261** **3 S**  
**Introduction to Management**

Introduction to management in profit and nonprofit institutions. Emphasis on the role of the manager. Not applicable toward a baccalaureate major or minor in the department.

UPPER-DIVISION COURSES:

**MGMT 328** **3 S**  
**Management Information Systems**

Basic concepts of using information systems in organizations; the role of data processing; fundamental design considerations. Odd years.

**MGMT 361** **4 F, S**  
**Management**

The basic concepts and theory of management with particular emphasis on planning, organizing, leading, and controlling.

**MGMT 457** **3 S**  
**International Management**

An analysis of problems encountered in operating businesses across national boundaries. Odd years.

**MGMT 465** **3 W**  
**Organizational Behavior**

Emphasis on the human aspects in organizations, including motivation, power, job enrichment, interpersonal and intergroup processes and relationships, perception, leadership, and organizational change and design.

**MGMT 466** **3 F**  
**Business and Society**

The environmental setting of business and its interdependence with other elements of the social order. An assessment of business involvement in urban, community, consumer, and environmental affairs.

**MGMT 472** **3 F**  
**Human Resources Management**

Contemporary objectives and problems relating to personnel management in organizations. Recruitment, selection, performance appraisal, training and development, supervision, compensation, pensions, grievances, and disciplinary actions. Odd years.

**MGMT 473 3 S**  
**Labor Law and Legislation**

History and development of labor legislation, including analysis of leading court decisions. Historical background of labor-management relations, unfair labor practices of management and unions, collective bargaining, strikes and lockouts, the National Labor Relations Board, and labor legislation. Even years.

**MGMT 481 3 F**  
**Operations Management**

Optimal approaches to the production of goods and services. Planning, scheduling, plant layout, production standards, quality, and cost controls. Even years.

**MGMT 486 3 S**  
**Supply Chain Management**

Practices, problems and approaches related to purchasing in profit and nonprofit institutions. Sources of supply, market information, product specifications, inspection, control records, legal aspects of purchasing, and the interrelationships among purchasing, prices, quality control, and inventory control. Even years.

**MGMT 491 3 S**  
**Strategic Management**

A capstone course integrating various functional areas of business and applying this knowledge to a study of business and institutional problems primarily through the case method. Should be taken during the senior year. Prerequisites: FIN 341; STAT 322; MGMT 361; MKTG 351.

**MGMT 495 1-3 Arranged**  
**Independent Study**

Designed for students qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

**Marketing**

UPPER-DIVISION COURSES:

**MKTG 351 4 F, S**  
**Marketing**

Marketing institutions and marketing decisions in relationship to the achievement of institutional goals. Management issues relating to product, price, promotion, and distribution; effects of marketing decisions on the environment and of the environment on marketing decisions.

**MKTG 360 3 W**  
**Consumer Behavior**

The application of research findings and concepts from such academic disciplines as psychology, anthropology, sociology, economics, and marketing to consumer buying behavior. Even years.

**MKTG 371 3 S**  
**Marketing Research**

Introduction to basic research concepts and techniques useful for determining information needs, conducting research, and making appropriate reports of research findings. Prerequisites: STAT 222, 322. Odd years.

**MKTG 372 3 S**  
**Retailing Management**

The structure and environment in which retailing management occurs. Areas of special emphasis include operation of stores, merchandise decisions, layout, pricing, and promotion decisions. Even years.

**MKTG 374 3 F**  
**Advertising**

The advertising function in profit and nonprofit enterprises from management's point of view. The purpose of advertising, media planning, budgeting for advertising, and an evaluation of the effectiveness of advertising.

**MKTG 377 3 W**  
**Sales Management**

The role of the sales manager in planning, organizing, developing, directing, controlling, and evaluating the sales force. Personal selling is also emphasized. Odd years.

**MKTG 417 3 F**  
**Services Marketing**

Application of marketing concepts and principles in service and nonprofit institutions. Identification and study of various constraints, clients, and publics; the special requirements, needs, and desires of those associated with and affected by the organization. Prerequisite: MKTG 351. Odd years.

**MKTG 458 3 S**  
**International Marketing**

Problems and perspectives when marketing across national boundaries. Differences caused by cultural, social, institutional, political, and economic factors. Managerial emphasis on market entry strategies, monitoring and controlling marketing management functions in the international arena. Even years.

## Business Administration & Economics

### **MKTG 481** **3 W** **Marketing Problems**

Selected areas in marketing, illustrating practical solutions to situations likely to confront marketing managers. Emphasis on developing an understanding of marketing problems and developing approaches to effective decision-making in marketing. Should be taken during the senior year. Prerequisite: MKTG 351.

### **MKTG 495** **1-3 Arranged** **Independent Study**

Designed for students qualified to undertake an advanced and independent project. The project must be approved by the chair of the department. Repeatable to a maximum of 3 credits.

### **OFAD 201** **2 F, S** **PC Word Processing**

Applications designed to increase knowledge of word processing concepts and working skills with the Microsoft Word software. One lecture and one laboratory per week.

UPPER-DIVISION COURSE:

### **OFAD 495** **1-3 Arranged** **Independent Study**

Designed for students qualified to undertake an advanced and independent project. Projects must be approved by the department chair. Repeatable to a maximum of 3 credits.

## Office Administration

LOWER-DIVISION COURSES:

### **OFAD 111** **2 W** **Personal/Beginning Keyboarding**

For beginners and reviewers. For beginners: touch-typing on the keyboard and document processing. For reviewers: emphasis on development of speed in both straight-copy and production work. Placement by waiver examination or first-week testing in class.

### **OFAD 121** **2 W** **Intermediate Keyboarding**

Develops and enhances the typewriting skills of speed, accuracy and proof-reading for personal and vocational uses. Prerequisite: Keyboarding placement test with a speed of at least forty words per minute or OFAD 111. Offered on sufficient demand.



## Faculty

Kent Davis, chair; Pablo Hilario, Denise Lee-Haye, Marie Pak, Robert Wilson

Departmental Office: 355 Chan Shun Hall; 965-7597

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The CHEMISTRY DEPARTMENT serves students with a primary interest in chemical science as well as students in other fields for which chemistry is an important foundation. The department has the following objectives:

- To give a thorough grounding in the principles of chemistry, both in theory and in practical experience with instrumentation currently in use.
- To help the student develop problem-solving abilities through a careful analysis of problems and the application of chemical principles.
- To provide an atmosphere where Christian values are integrated into the learning experience.

The department offers several degree options. For students intending to enter a graduate chemistry program or directly enter the profession, both the B.S. in Chemistry and the B.S. in Chemistry with a Biochemistry emphasis are suitable programs. Students who intend to enter a professional program in one of the medical sciences will find the B.S. in Chemistry with a Biochemistry emphasis provides a very good preparation. Students are encouraged to work closely with their major advisor to select suitable electives regardless of their career choice.

Students whose interests include the liberal arts and languages as well as chemistry may choose the B.A. in Chemistry. Those interested in a primary or secondary school teaching career may choose the B.S. in Natural Science.

## Major in Chemistry, B.S.

A minimum of 88 hours (45 upper-division hours)

### ► Required Core Courses (53-54 hours):

CHEM 111+112+113	General Chemistry	5+5+5
CHEM 324	Analytical Chemistry I	3
CHEM 324L	Analytical Chemistry I Lab	2
CHEM 325	Analytical Chemistry II	3
CHEM 371+372+373	Organic Chemistry	4+4+4
CHEM 373L	Adv. Organic Chemistry Lab	1
CHEM 396	Seminar (4 quarters)	.5+.5+.5+.5
CHEM 414	Inorganic Chemistry	3
CHEM 451+452+453	Physical Chemistry	3+3+3
CHEM 499	Introduction to Research	1

At least two of the following courses: 2-3

CHEM 325L	Analytical Chemistry II Lab (1)
CHEM 450L	Physical Chemistry Lab (1)
CHEM 484L	Biochemistry Lab (2)

### ► Required Core Electives (6-7 hours):

At least 6-7 hours from the following: 6-7

(To be selected in consultation with the major advisor.)

Additional upper-division CHEM courses

### ► Required Cognate Courses (28 hours):

MATH 131+132+133	Calculus I,II,III	4+4+4
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One of the following sequences: 4+4+4

PHYS 111+112+113	General Physics (4+4+4)
PHYS 211+212+213	Physics with Calculus (4+4+4)

At least one of the following courses: 4

MATH 265	Elementary Linear Algebra (4)
MATH 267	Multivariable Calculus (4)
MATH 269	Elementary Differential Equations (4)
MATH 375	Numerical Analysis (4)

### Recommended Cognate Courses:

CPTR 115	Intro. to Computer Programming (4)
PHYS 314	Elementary Modern Physics (4)

# Chemistry

## Major in Chemistry, B.A.

A minimum of 69 hours (34 upper-division hours)

### ► Required Core Courses (49-50 hours):

CHEM 111+112+113	General Chemistry	5+5+5
CHEM 324	Analytical Chemistry I	3
CHEM 324L	Analytical Chemistry I Lab	2
CHEM 325	Analytical Chemistry II	3
CHEM 371+372+373	Organic Chemistry	4+4+4
CHEM 373L	Adv. Organic Chemistry Lab	1
CHEM 396	Seminar (4 quarters)	.5+.5+.5+.5
CHEM 414	Inorganic Chemistry	3
CHEM 451+452	Physical Chemistry	3+3

At least two of the following courses: 2-3

CHEM 325L	Analytical Chemistry II Lab (1)
CHEM 450L	Physical Chemistry Lab (1)
CHEM 484L	Biochemistry Lab (2)

### ► Required Cognate Courses (20 hours):

MATH 131+132	Calculus I,II	4+4
PHYS 111+112+113	General Physics	4+4+4

### Recommended Cognate Courses:

CPTR 115	Intro. to Computer Programming (4)
MATH 133	Calculus III (4)
PHYS 314	Elementary Modern Physics (4)

## Major in Chemistry with an Emphasis in Biochemistry, B.S.

A minimum of 95 hours (45 upper-division hours)

### ► Required Core Courses (55 hours):

CHEM 111+112+113	General Chemistry	5+5+5
CHEM 324	Analytical Chemistry I	3
CHEM 324L	Analytical Chemistry I Lab	2
CHEM 371+372+373	Organic Chemistry	4+4+4
CHEM 373L	Adv. Organic Chemistry Lab	1
CHEM 396	Seminar (4 quarters)	.5+.5+.5+.5
CHEM 451+452	Physical Chemistry	3+3
CHEM 481+482+483	Biochemistry I,II,III	4+4+3
CHEM 484L	Biochemistry Lab	2

At least one of the following courses: 1

CHEM 325L	Analytical Chemistry II Lab (1)
CHEM 450L	Physical Chemistry Lab (1)

### ► Required Core Electives (5 hours):

At least 5 hours from the following: 5

(To be selected in consultation with the major advisor.)

BIOL 320	Cellular & Molecular Biology (4)
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Additional upper-division CHEM courses

### ► Required Cognate Courses (35 hours):

BIOL 111+112+113	Biological Foundations	5+5+5
MATH 131+132	Calculus I,II	4+4
PHYS 111+112+113	General Physics	4+4+4

### Pre-medical and pre-dental students:

See advisor for recommended cognates.

## Major in Natural Science, B.S. Chemistry Emphasis

A minimum of 100 hours (40 upper-division hours)

This major provides appropriate preparation for teaching science at the secondary level. The core requirement of 65 quarter hours of course work corresponds to science subjects commonly taught in California public schools, and the emphasis treats the subject matter at a depth more than adequate for teaching the higher secondary science courses in chemistry. Emphases may also be obtained in biology or physics. For further information, see the sections entitled "Biology" and "Physics" in this catalog.

### ► Required Core Courses (65 hours):

ASTR 115	Astronomy	5
ASTR 173	Meteorology	1
BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 331	Marine Science	4
BIOL 355	Issues on Origins	3
CHEM 111+112+113	General Chemistry	5+5+5
GEOL 233	Geology	4
PHYS 390	History and Philosophy of Science	3

At least one of the following courses: 3

ENVR 360	Conservation Biology (3)
ENVR 361	Energy & Climate Change (3)
ENVR 362	Pollution & Environmental Quality (3)

One of the following sequences: 4+4+4

PHYS 111+112+113	General Physics (4+4+4)
PHYS 211+212+213	Physics with Calculus (4+4+4)

### Chemistry Emphasis (35 hours)

#### ► Required Core Courses (27 hours):

CHEM 324+324L	Analytical Chemistry I, Lab	3+2
CHEM 371+372+373	Organic Chemistry	4+4+4
CHEM 373L	Adv. Organic Chemistry Lab	1
CHEM 396	Seminar (4 quarters)	.5+.5+.5+.5
CHEM 451	Physical Chemistry	3
CHEM 481	Biochemistry I	4

#### ► Required Cognate Courses (8 hours):

MATH 131+132	Calculus I,II	4+4
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## Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in science with a concentration in chemistry may take the B.S. degree in Natural Science, Chemistry Emphasis. Students will need to pass the science (chemistry concentration) portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the Chemistry Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Edu-

cation Program as outlined in the section entitled "Education" in this catalog.

## Minor in Chemistry

*A minimum of 30 hours (15 upper-division hours)*

### ► Required Courses (20 hours):

CHEM 111+112+113	General Chemistry	5+5+5
CHEM 324	Analytical Chemistry I	3
CHEM 324L	Analytical Chemistry I Lab	2

### ► Required Electives (10 hours):

<i>At least 10 hours from the following:</i>	10
Additional upper-division CHEM courses	

## Chemistry

### SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

### CHEM 101 4 F Introductory Chemistry

An elementary introduction to fundamental principles of chemistry. Primarily for students preparing to enter an allied health or related field or to enroll in CHEM 102 and 111. Three lectures and one laboratory per week. Prerequisite: Secondary-school Algebra I or MATH 095.

### CHEM 102 4 W Survey of Organic Chemistry

The important classes of organic compounds. Emphasis is given to topics related to the health sciences and biochemistry. Three lectures and one laboratory per week. Prerequisite: Secondary-school chemistry or CHEM 101.

### CHEM 103 4 S Survey of Biochemistry

The chemistry of living organisms emphasizing the normal processes occurring in the human body. Three lectures and

one laboratory per week. Prerequisite: CHEM 102.

### LOWER-DIVISION COURSES:

### CHEM 111+112+113 5+5+5 F+W+S General Chemistry

A complete introduction to the fundamental principles of chemistry. Includes the following topics: atomic and molecular orbital theory, stoichiometry, gas laws, thermodynamics, kinetics, chemical equilibrium, acid-base theory, pH and introductions to nuclear, inorganic, and organic chemistry. Intended for chemistry majors and preprofessional students in medicine, dentistry and other technical fields. Must be taken in sequence.

Four lectures and one laboratory per week. Prerequisites: Algebra II or MATH 096. A score of 19 on the mathematics section of the ACT (or 500 on the SAT) is expected. Secondary school chemistry (or CHEM 101) and physics are highly recommended.

### UPPER-DIVISION COURSES:

### CHEM 324 3 F Analytical Chemistry I

The quantitative study of chemical reactions occurring in the aqueous phase,

including solubility, acid base equilibria and complex formation. Methods of data recording and manipulation, error analysis and statistical treatment of data are also included. Prerequisite: CHEM 113.

### CHEM 324L 2 F Analytical Chemistry I Laboratory

A series of laboratory experiments to determine unknown quantities of selected chemical substances. The chemical principles in CHEM 324 are reiterated; emphasis, however, is on laboratory technique. Six hours laboratory per week. Prerequisite or corequisite: CHEM 324.

### CHEM 325 3 W Analytical Chemistry II

The theoretical basis of chemical analysis using electrochemical, spectrophotometric and chromatographic methods. Introduction to principles of operation of current analytical instrumentation. Prerequisites: CHEM 324L, MATH 132. Strongly recommended corequisite: CHEM 325L.

### CHEM 325L 1 W Analytical Chemistry II Laboratory

Laboratory coordinated with CHEM 325. Prerequisite or corequisite: CHEM 325.

## Chemistry

### **CHEM 344** **3 S**

#### **Nuclear Physics and Chemistry**

Radioactivity, properties of radioactive nuclei, nuclear structure, nuclear reactions, and nuclear fission with applications to the cosmos. Prerequisites: CHEM 113, MATH 132, and PHYS 113.

### **CHEM 371+372** **4+4 F+W**

#### **Organic Chemistry**

The physical and chemical properties of compounds of carbon. A mechanistic approach to the study of organic reactions with an emphasis on spectroscopic methods of analysis. Must be taken in sequence. Three lectures and one laboratory per week. Prerequisite: CHEM 113.

### **CHEM 373** **4 S**

#### **Organic Chemistry**

A continuation of CHEM 372 and an introduction to biochemistry (carbohydrates, proteins, and lipids). Prerequisite: CHEM 372. Corequisite: 373L required of all chemistry majors.

### **CHEM 373L** **1 S**

#### **Advanced Organic Chemistry Laboratory**

Laboratory coordinated with CHEM 373. Required of all chemistry majors.

### **CHEM 396** **.5 F, W, S**

#### **Seminar**

(See also BIOL 396, CPTR 396, ENVR 396, PHYS 396)

Topics of current interest in the natural sciences are presented and discussed. Prerequisite: CHEM 373. Enrollment limited to upper-division students. Repeatable to a maximum of 2 credits. Graded S/F.

### **CHEM 414** **3 S**

#### **Inorganic Chemistry**

A systematic study of inorganic chemistry with emphasis on chemical theory

and bonding, the descriptive chemistry of the elements, and transition-metal chemistry. Prerequisite: CHEM 372, MATH 132. Even years.

### **CHEM 450L** **1 W, S**

#### **Physical Chemistry Laboratory**

Laboratory activities exploring aspects of thermodynamics, kinetics, quantum chemistry, and spectroscopy. Prerequisite or corequisite: CHEM 451, 452 or 453

### **CHEM 451** **3 F**

#### **Physical Chemistry: Thermodynamics**

The laws of thermodynamics and their application to chemistry. Prerequisites: CHEM 113, MATH 131, and PHYS 113.

### **CHEM 452** **3 W**

#### **Physical Chemistry: Dynamics**

Kinetic theory, chemical kinetics, including enzyme kinetics, transport properties. Introduction to the basic ideas of quantum mechanics. Prerequisites: CHEM 113, MATH 132, and PHYS 113.

### **CHEM 453** **3 S**

#### **Physical Chemistry: Structure**

An introduction to the Schrödinger wave equation with applications to chemical systems and spectroscopy. Prerequisite: CHEM 452.

### **CHEM 474** **3 W**

#### **Organic Theory and Reaction Mechanisms**

A mechanistic approach to the study of selected topics in organic chemistry, such as orbital symmetry, molecular rearrangements, linear free energy relationships, and photochemistry. Prerequisite: CHEM 373. Even years.

### **CHEM 481** **4 F**

#### **Biochemistry I**

An introduction to the chemistry of biologically-relevant molecules. Includes

attention to biological oxidations, energy relationships, and enzyme kinetics. Prerequisite: CHEM 373.

### **CHEM 482** **4 W**

#### **Biochemistry II**

The intermediary metabolism of carbohydrates, lipids and proteins, and an introduction to the replication and transmission of genetic information. Prerequisite: CHEM 481.

### **CHEM 483** **3 S**

#### **Biochemistry III**

The signaling processes of cells, including the structure and function of signaling molecules. Includes the mechanism of signal processing, coordination by information transducing pathways, and consequences of signaling pathways defects. Prerequisite: CHEM 482.

### **CHEM 484L** **2 S**

#### **Biochemistry Laboratory**

Laboratory discussions and activities introducing the basic experimental techniques of biochemistry. One lecture and one laboratory per week. Prerequisite: CHEM 482.

### **CHEM 495** **1-3 Arranged**

#### **Independent Study**

Offers the advanced student opportunity to pursue investigation in a field of special interest under the direction of department faculty.

### **CHEM 499** **1-2 F, W, S**

#### **Introduction to Research**

A directed research project intended to acquaint students with research problems of current interest. A suitable problem is undertaken with the direction of the faculty. Open to upper-division majors in chemistry and, by permission, to other upper-division students. Repeatable to a maximum of 4 credits in Bachelor of Science curricula.



## Faculty

Michelle Rai, chair; Rosemary Collins, Tammy McGuire, Lynne Thew, Patrick Vogelpohl

Departmental Office: 327 Irwin Hall; 965-6437

## Degrees and Programs

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The COMMUNICATION DEPARTMENT serves the communication needs of students in every department, offering instruction in a variety of communication skills and principles that apply in mass media, public speaking, small group, and interpersonal settings. The department provides curricula leading to a variety of communication-related careers, with specific preparation for careers in public relations, journalism, intercultural communication and communication sciences and disorders (speech pathology). Communication courses also provide valuable learning opportunities for those preparing for careers which incorporate public speaking, such as business, law, medicine, pastoral or evangelistic ministry, broadcasting, and others.

## Major in Communication, B.S.

A minimum of 72 hours (40 upper-division hours)

### ► Required Core Courses (25 hours):

COMM 134	Mass Media Communication	3
COMM 223	Interpersonal Communication	3
COMM 226	Public Speaking	3
COMM 330	Intercultural Communication I	3
COMM 424	Communication Research I	3
COMM 425	Communication Research II	3
COMM 450	Senior Seminar/Communication Disciplines	2
JOUR 141	Newswriting and Reporting	3
JOUR 244	Copyediting	2

### ► Emphases (choose one):

#### 1. Communication Studies Emphasis (47 hours)

##### ► Required Emphasis Courses (24 hours):

COMM 225	Oral Interpretation	3
COMM 328	Small Group Communication	3
COMM 329	Organizational Communication	3
COMM 426	Argumentation	3
COMM 427	Persuasive Communication	3
COMM 494	Communication Internship	3
JOUR 434	Media Law and Ethics	3
PREL 231	Public Relations I: Introduction	3

##### ► Required Emphasis Electives (17 hours):

At least 17 hours from the following (8 upper-division): 17

Additional non-service COMM, PREL, or JOUR courses  
 DRMA 229 Acting I: Fundamentals (3)

##### ► Required Cognate Courses (6 hours):

ARTD 253	Publication Technology	3
RELT 330	The Christian and the Media	3

# Communication

## 2. Journalism Emphasis (48 hours)

### ► Required Emphasis Courses (33 hours):

COMM 328	Small Group Communication	3
COMM 329	Organizational Communication	3
COMM 340	Visual Communication & Semiotics	3
JOUR 242	Photojournalism	3
JOUR 341	Advanced Newswriting	3
JOUR 434	Media Law and Ethics	3
JOUR 443	Investigative Reporting	3
JOUR 494	Journalism Internship	3
PREL 231	Public Relations I: Introduction	3
PREL 350	Writing for the Media	3

At least one of the following courses: 3

COMM 426	Argumentation (3)
COMM 427	Persuasive Communication (3)

### ► Required Emphasis Electives (6 hours):

At least 6 hours from the following: 6  
Additional upper-division COMM, PREL, or JOUR courses

### ► Required Cognate Courses (9 hours):

ARTD 253	Publication Technology	3
ARTP 150	Black & White Photography	3
RELT 330	The Christian and the Media	3

## 3. Public Relations Emphasis (48-49 hours)

### ► Required Emphasis Courses (33 hours):

COMM 328	Small Group Communication	3
COMM 329	Organizational Communication	3
COMM 340	Visual Communication & Semiotics	3
JOUR 434	Media Law and Ethics	3
PREL 231	Public Relations I: Introduction	3
PREL 232	Public Relations II: Applications and Crises	3
PREL 337	Fundraising for Non-Profits	3
PREL 339	Public Relations III: Campaigns and Practices	3
PREL 350	Writing for the Media	3
PREL 494	Public Relations Internship	3

At least one of the following courses: 3

COMM 426	Argumentation (3)
COMM 427	Persuasive Communication (3)

### ► Required Emphasis Electives (6 hours):

At least 6 hours from the following: 6  
Additional upper-division COMM, PREL, or JOUR courses

### ► Required Cognate Courses (9-10 hours):

ARTD 253	Publication Technology	3
RELT 330	The Christian and the Media	3

At least one of the following courses: 3-4

MKTG 351	Marketing (4)
MKTG 360	Consumer Behavior (3)
MKTG 374	Advertising (3)

## Major in Communication, B.A.

A minimum of 61 hours (38 upper-division hours)

### ► Required Core Courses (25 hours):

COMM 134	Mass Media Communication	3
COMM 223	Interpersonal Communication	3
COMM 226	Public Speaking	3
COMM 330	Intercultural Communication I	3
COMM 424	Communication Research I	3
COMM 425	Communication Research II	3
COMM 450	Senior Seminar in Communication Disciplines	2
JOUR 141	Newswriting and Reporting	3
JOUR 244	Copyediting	2

### ► Required Major Courses (24 hours):

COMM 225	Oral Interpretation	3
COMM 328	Small Group Communication	3
COMM 329	Organizational Communication	3
COMM 426	Argumentation	3
COMM 427	Persuasive Communication	3
COMM 494	Communication Internship	3
JOUR 434	Media Law and Ethics	3
PREL 231	Public Relations I: Introduction	3

### ► Required Major Electives (6 hours):

At least 6 hours from the following: 6  
Additional upper-division COMM, PREL, or JOUR courses

### ► Required Cognate Courses (6 hours):

ARTD 253	Publication Technology	3
RELT 330	The Christian and the Media	3

## Major in Intercultural Communication, B.A.

A minimum of 87 hours (46 upper-division hours)

### ► Required Core Courses (25 hours):

COMM 134	Mass Media Communication	3
COMM 223	Interpersonal Communication	3
COMM 226	Public Speaking	3
COMM 330	Intercultural Communication I	3
COMM 424	Communication Research I	3
COMM 425	Communication Research II	3
COMM 450	Senior Seminar/Communication Disciplines	2
JOUR 141	Newswriting and Reporting	3
JOUR 244	Copyediting	2

► **Required Major Courses (11 hours):**

COMM 430	Intercultural Communication II	2
PREL 337	Fundraising for Non-Profits	3

*At least one of the following courses:*

COMM 328	Small Group Communication (3)	3
COMM 329	Organizational Communication (3)	3

*At least one of the following courses:*

COMM 426	Argumentation (3)	3
COMM 427	Persuasive Communication (3)	3

► **Required Major Electives (3 hours):**

Additional upper-division COMM, JOUR, or PREL courses	3
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► **Required Cognate Courses (24-25 hours):**

ANTH 124	Cultural Anthropology	4
HIST 101+102	History of World Civilizations	4+4
RELH 311	World Religions	3
SOCI 355	“Racial” and Ethnic Relations	3

*At least one of the following courses:*

MGMT 361	Management (4)	3-4
MGMT 457	International Management (3)	3

*At least one of the following courses:*

GEOG 210	World Regional Geography (3)	3
GEOG 220	Geography of the Americas (3)	3
PLSC 328	Critical World Issues (3)	3
PLSC 485	Foreign Relations of the United States (3)	3

► **Emphases (choose one):**

**1. French Emphasis (24 hours)**

At least 24 hours of intermediate- and advanced-level French (including at least 12 upper-division hours) at an approved international French-language institution (typically Sèminaire Adventiste du Salève, Collonges, France).

**2. German Emphasis (24 hours)**

At least 24 hours of intermediate- and advanced-level German (including at least 12 upper-division hours) at an approved international German-language institution (typically Seminar Schloss Bogenhofen, Austria, or Friedensau Adventist University, Germany).

**3. Italian Emphasis (24 hours)**

At least 24 hours of intermediate- and advanced-level Italian (including at least 12 upper-division hours) at an approved international Italian language institution (typically Instituto Avventista Villa Aurora, Italy).

**4. Spanish Emphasis (24 hours)**

*At least 12 hours from the following:* 12

SPAN 367	Spanish and Latin American Culture & Civ. (4)	4
SPAN 382	Applied Spanish Linguistics (4)	4
SPAN 385	Business Spanish (4)	4
SPAN 440	Spanish and Latin American Film (4)	4
SPAN 441	Readings in Spanish Literature (4)	4
SPAN 442	Readings in Latin American Literature (4)	4

*At least 12 hours from the following:* 12

Upper-division Spanish courses at an approved international Spanish-language institution (typically Colegio Adventista de Sagunto, Spain; or at Universidad Adventista del Plata, Villa Libertador St. Martín, Argentina).

**Communication Sciences**

Pacific Union College offers a preprofessional program in Communication Sciences which is affiliated with the School of Allied Health at Loma Linda University. The Communication Sciences faculty at LLU provide regular assistance and counseling to students interested in this program.

The first two years of a baccalaureate degree in Communication Sciences, taken on the Pacific Union College campus, include the following course:

SPPA 164	Introduction to Speech Pathology	4
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Approved courses in general education complete the preprofessional curriculum.

**Minor in Communication**

*A minimum of 30 hours (12 upper-division hours)*

► **Required Courses (15 hours):**

COMM 223	Interpersonal Communication	3
COMM 330	Intercultural Communication	3

*At least one of the following courses:* 3

COMM 225	Oral Interpretation (3)	3
COMM 226	Public Speaking (3)	3

*At least one of the following courses:* 3

COMM 328	Small Group Communication (3)	3
COMM 329	Organizational Communication (3)	3

*At least one of the following courses:* 3

COMM 426	Argumentation (3)	3
COMM 427	Persuasive Communication (3)	3

► **Required Electives (15 hours):**

*At least 13 hours from the following (3 upper-division):* 15

Additional non-service COMM, JOUR or PREL courses	15	
DRMA 229	Acting I: Fundamentals (3)	3

# Communication

## Minor in Public Relations/Journalism

A minimum of 30 hours (12 upper-division hours)

### ► Required Courses (11 hours):

COMM 134	Mass Media Communication	3
JOUR 141	Newswriting and Reporting	3
JOUR 244	Copyediting	2
PREL 231	Public Relations I: Introduction	3

### ► Required Electives (19 hours):

At least 19 hours from the following (12 upper-division):	19
Any PREL or JOUR course	
ARTD 253	Publication Technology (3)
ARTP 150	Black & White Photography (3)
COMM 340	Visual Communication & Semiotics (3)
COMM 427	Persuasive Communication (3)
COMM 450	Senior Seminar in Comm. Disciplines (2)

## Communication

### SERVICE COURSE:

(Not applicable to a major or minor in this department)

### COMM 105 3 F, W, S Introduction to Communication

Develops skills in oral communication, surveys the human communication process, and encourages responsible speaking and listening. Focuses on intrapersonal, interpersonal, small group, and public communication. Enrollment limited to freshmen who are not taking a major within the Communication Department. (All other students see COMM 226.)

### LOWER-DIVISION COURSES:

### COMM 134 3 F Mass Media Communication

The academic discipline and career opportunities currently available in the context of mass media. Based on the transactional model of communication. Includes the study of the ways in which advertising, public relations, and research contribute to the accurate transmission of mass media messages. Designed to be taken in the freshman year.

### COMM 223 3 F Interpersonal Communication

Transactional nature of interpersonal communication, including the roles of both verbal and nonverbal communication, empathic listening, and self-disclosure as means of building trusting relationships and developing rhetorical sensitivities.

### COMM 225 3 S Oral Interpretation

Skills in reading aloud from prose, poetry, plays, and expository material. Emphasis on developing the ability to create and sustain mood and on learning the various methods of creating meaning through vocal expression.

### COMM 226 3 F, W, S Public Speaking

Composing speeches and delivering them before groups. Enrollment limited to sophomores, juniors, and seniors. Freshmen taking a major within the Communication Department may also enroll.

### UPPER-DIVISION COURSES:

### COMM 328 3 W Small Group Communication

Effective use of communication in small groups; analysis of the nature of group productivity, cohesiveness, and leadership; group problem-solving within various contexts.

### COMM 329 3 F Organizational Communication

Communication problems and variables unique to the organizational environment. Current and traditional theories are reviewed and applied to various communication studies.

### COMM 330 3 W Intercultural Communication I

Variables and effects of both verbal and nonverbal communication between cultures. Practical applications for careers in all communication fields (domestic and international), business, international relations, international relief and development, language-translation, foreign affairs, social work, and education.

### COMM 340 3 S Visual Communication and Semiotics

The visual, symbolic, classificatory, and meaning-making practices at the heart of all cultural production, consumption, and communication.

### COMM 424 3 F Communication Research I

Planning communication research, designing research instruments, and writing a research plan. Includes overview of ethical issues involved in research. Limited to students with senior class standing.

**COMM 425** **3 W**  
**Communication Research II**

Implementing a communication research plan, survey techniques, tabulation procedures, and simple statistical tests. Includes interpreting survey results, as well as writing and presenting research in a professional, ethical, and credible fashion. Limited to students with senior class standing. Prerequisite: COMM 424, STAT 222.

**COMM 426** **3 S**  
**Argumentation**

Logical reasoning, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments for critical decision making. Emphasis includes both oral and written arguments. Limited to students with senior class standing.

**COMM 427** **3 F**  
**Persuasive Communication**

Rhetorical principles of ethical persuasion in public speaking, interpersonal relationships, public relations, and advertising. Development of skills in logical argument, emotive influence, and psychological appeal and in achieving source credibility. Even years.

**COMM 430** **2 S**  
**Intercultural Communication II**

Moves beyond the survey of intercultural communication concepts to incorporate primary research and theory frameworks from the field of communication. Employs a case-study format to integrate political science, history, anthropology, world religions, and business management with communication theory and practice. Prerequisite: COMM 330. Even years.

**COMM 450** **2 W**  
**Senior Seminar in Communication Disciplines**

Capstone course emphasizing professional skills, ethics, creation of portfolio, and career planning.

**COMM 490** **1-3 Arranged**  
**Issues in Communication**

Study of a specific issue in an area of communication such as rhetoric and public address, small group communication, interpersonal communication, intercultural communication, organizational communication, journalism, public relations, and speechwriting. Repeatable for credit under different subtitles.

**COMM 494** **3 F, W, S, Su**  
**Communication Internship**

Supervised work experience in a communication-related environment. Skills in the practice of communication are used. Enrollment limited to department majors. Advance approval of the department required. May not be taken before the end of the sophomore year. Prerequisites: COMM 134, 226; JOUR 141; PREL 231. Qualifies for IP grading. Graded S/F.

**COMM 495** **1-3 Arranged**  
**Independent Study**

Opportunity for the advanced student to investigate special interests under the direction of departmental faculty.

**Journalism**

LOWER-DIVISION COURSES:

**JOUR 141** **3 S**  
**Newswriting and Reporting**

Gathering information and writing news stories for mass-media news audiences.

**JOUR 242** **3 S**  
**Photojournalism**

Application of photography to specific problems of the journalist or public relations officer; using images to give graphic impact to news and feature stories; processing and editing of pictures taken by the student. Prerequisite: ARTP 150.

**JOUR 244** **2 W**  
**Copyediting**

An overview of the basic tools and tasks of copyeditors, including rewriting, editing, correcting grammar, using *The Associated Press Stylebook*, creating style sheets, and methods of querying authors. Students learn to edit using conventional marks and symbols, apply the appropriate level of copyediting, eliminate bias, and ensure consistency.

UPPER-DIVISION COURSES:

**JOUR 341** **3 W**  
**Advanced Newswriting**

Instruction and experience in advanced reporting and nonfiction writing. Development of article ideas, query letters, writing styles, structure and organization of material, copyright, and databases. Honing of skills as interviewers and observers of daily life. The student is required to submit an article for publication. Prerequisites: JOUR 141, 244. Even years.

**JOUR 434** **3 F**  
**Media Law and Ethics**

Current issues involving personal rights and corporate responsibilities as related to concepts of free speech and responsible journalism.

## Communication

### **JOUR 443** **3 W** **Investigative Reporting and Writing**

Tools, techniques, and skills for conducting journalistic investigations, with an emphasis on ethics, research development of sources, and interviews. The use of public records and “the paper trail” to document complex issues. Assignments include developing and writing a significant, accurate, and comprehensive investigative news story. Prerequisites: JOUR 141, 242, 244. Odd years.

### **JOUR 494** **3 F, W, S, Su** **Journalism Internship**

Supervised opportunity for the student to accrue direct experience in a professional journalistic setting as approved by the department. Enrollment restricted to department majors. Prerequisites: JOUR 141, 244; PREL 231, 232; ARTD 253. Qualifies for IP grading. Graded S/F.

### **JOUR 495** **1-3 Arranged** **Independent Study**

Offers the advanced student opportunity to pursue investigation in fields of special interest under the direction of departmental faculty.

## Public Relations

LOWER-DIVISION COURSES:

### **PREL 231** **3 W** **Public Relations I: Introduction**

Fundamental values and procedures of the public relations profession. Research techniques, communication theory, public relations management, writing, and media relations.

### **PREL 232** **3 S** **Public Relations II: Applications and Crises**

Applications of public relations to specific publics including employees, multicultural communities, consumers, and government. Management of public relations in crises; exploiting public relations opportunities created by crisis situations. Prerequisite: PREL 231.

UPPER-DIVISION COURSES:

### **PREL 337** **3 S** **Fundraising for Non-Profits**

Philosophy of philanthropic giving and the techniques that lead to successful fundraising. Creation of a writing portfolio including: case statement, direct mail letter, brochure, and press release. Regular guest presentations from fundraising professionals.

### **PREL 339** **3 F** **Public Relations III: Campaigns and Practices**

The media of public relations and their incorporation into an integrated marketing communications plan, including the elements, development, and structuring of the plan.

### **PREL 350** **3 S** **Writing for the Media**

Principles of and practice in journalistic writing for the electronic and printed media with emphasis on appropriate media selection and usage. Development of writing skills for a variety of internal and external applications, including print, broadcast, and social media. Pre-requisites: JOUR 141, 244.

### **PREL 494** **3 F, W, S, Su** **Public Relations Internship**

Supervised experience in public relations. Under the direction of a public relations professional, the student accrues direct experience in a professional public relations setting as approved by the department. Enrollment restricted to department majors. Prerequisites: JOUR 141, 244; PREL 231, 232; ARTD 253. Qualifies for IP grading. Graded S/F.

### **PREL 495** **1-3 Arranged** **Independent Study**

Offers the advanced student opportunity to pursue investigation in a field of special interest under the direction of department faculty.

## Speech Pathology

LOWER-DIVISION COURSE:

### **SPPA 164** **4 S** **Introduction to Speech Pathology**

Introduction to speech and language disorders, their etiology and treatment. For students pursuing the preprofessional program in speech pathology and audiology and for those entering professions in education, behavioral science, social welfare, and related fields who may encounter persons with speech disorders.





## Faculty

Steve Waters, chair; Bruce Ivey, Roberto Ordonez  
 Departmental Office: 238 Chan Shun Hall; 965-7269

## Degrees and Programs

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COMPUTER SCIENCE is the study of solving problems with the aid of computers. It deals with the design of algorithms (i.e., effective procedures) for the solution of problems, with the structures of languages for the efficient expression of these algorithms, and with computer systems, both hardware and software, for implementing these languages.

Two degree options are offered. The B.S. in Computer Science is designed to prepare the student for graduate study in computer science or for a career in scientific computation or software development. The B.A. in Computer Science prepares the student to be a knowledgeable user of computers in business or other applications. The department also offers a minor in computer science.

## Major in Computer Science, B.S.

A minimum of 76 hours (40 upper-division hours)

### ► Required Core Courses (55 hours):

CPTR 115	Introduction to Computer Programming	4
CPTR 131	Survey of Computer Science	4
CPTR 132	Data Structures and Algorithms I	4
CPTR 224	Assembly Programming	4
CPTR 246	Object-Oriented Design	3
CPTR 326	Computer Languages	4
CPTR 346	Data Structures and Algorithms II	4
CPTR 347	Database Systems	4
CPTR 357	Computer Architecture	4
CPTR 367	Communications and Networking	4
CPTR 396	Seminar (2 quarters)	.5+ .5
CPTR 398	Indiv. Programming Language Study	2
CPTR 426	Software Engineering	4
CPTR 447	Operating Systems	3
CPTR 455	Theory of Computing	3
CPTR 466	Senior Project	3

### ► Required Core Electives (5 hours):

At least 5 hours from the following: 5

Additional non-service CPTR courses		
MATH 265	Elementary Linear Algebra (4)	
MATH 331	Probability Theory (3)	
MATH 332	Mathematical Statistics (3)	
MATH 351+352	Introduction to Abstract Algebra I,II (3+3)	
MATH 354	Number Theory (3)	
MATH 375	Numerical Analysis (4)	

### ► Required Cognate Courses (16-18 hours):

MATH 131+132	Calculus I,II	4+4
MATH 275	Logic and Sets	4
MATH 355	Combinatorics and Graph Theory	4
OFAD 111	Personal/Beginning Keyboarding*	0-2

\* See footnote, next page.

# Computer Science

## Recommended Cognate Courses:

MATH 133            Calculus III (4)  
PHYS 211+212+213    Physics with Calculus (4+4+4)

This curriculum follows the guidelines of the ACM (Association for Computing Machinery).

## Major in Computer Science, B.A.

A minimum of 57 hours (28 upper-division hours)

### ► Required Core Courses (43 hours):

CPTR 115	Introduction to Computer Programming	4
CPTR 131	Survey of Computer Science	4
CPTR 132	Data Structures and Algorithms I	4
CPTR 224	Assembly Programming	4
CPTR 246	Object-Oriented Design	3
CPTR 326	Computer Languages	4
CPTR 346	Data Structures and Algorithms II	4
CPTR 347	Database Systems	4
CPTR 367	Communications and Networking	4
CPTR 396	Seminar (2 quarters)	.5+.5
CPTR 426	Software Engineering	4
CPTR 447	Operating Systems	3

### ► Required Core Electives (2 hours):

At least 2 hours from the following: 2

Additional non-service CPTR or INFS courses  
MATH 265            Elementary Linear Algebra (4)  
MATH 331            Probability Theory (3)  
MATH 351+352       Introduction to Abstract Algebra I,II (3+3)  
MATH 354            Number Theory (3)  
MATH 375            Numerical Analysis (4)

### ► Required Cognate Courses (12-14 hours):

MATH 131	Calculus I	4
MATH 275	Logic and Sets	4
MATH 355	Combinatorics and Graph Theory	4
OFAD 111	Personal/Beginning Keyboarding*	0-2

## Recommended Cognate Courses:

MATH 132+133        Calculus II,III (4+4)  
PHYS 111+112+113    General Physics (4+4+4)

## Minor in Computer Science

A minimum of 30 hours (15 upper-division hours)

### ► Required Courses (12 hours):

CPTR 115	Introduction to Computer Programming	4
CPTR 131	Survey of Computer Science	4
CPTR 132	Data Structures and Algorithms I	4

### ► Required Electives (18 hours):

At least 18 hours from the following (15 upper-division): 18

Additional non-service CPTR or INFS courses  
MATH 265            Elementary Linear Algebra (4)  
MATH 275            Logic and Sets (4)  
MATH 331            Probability Theory (3)  
MATH 351+352       Introduction to Abstract Algebra I,II (3+3)  
MATH 355            Combinatorics and Graph Theory (4)  
MATH 375            Numerical Analysis (4)

### ► Required Cognate Course (0-2 hours):

OFAD 111	Personal/Beginning Keyboarding*	0-2
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## Recommended Cognate Course:

MATH 131	Calculus I (4)
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\* This requirement may be met by completion of a course or satisfactory performance on a departmental waiver examination. The waiver option is available only to students with fewer than 75 credit hours and to transfer students if taken during their first quarter at Pacific Union College.

## Computer Science

### SERVICE COURSE:

(Not applicable to a major or minor in this department)

### CPTR 105 3 F, S Introduction to Computers

For the liberal arts student; introductory exploration of the principles of computing and the function, history, and use of computers. No prerequisites, but a knowledge of mathematics equivalent to high-school algebra is assumed. Two lectures and one laboratory per week.

### LOWER-DIVISION COURSES:

### CPTR 115 4 F, W Introduction to Computer Programming

Introduction to the principles necessary for writing clear, well-designed and efficient computer programs. Three lectures and one laboratory per week. No prerequisites, but a knowledge of mathematics equivalent to high-school algebra is assumed.

### CPTR 131 4 W Survey of Computer Science

Overview of the main topics that make up the field of computer science, including computer architecture, operating systems, algorithms, programming languages, software engineering, data structures, databases, artificial intelligence, and theory of computation. Three lectures and one laboratory per week. Prerequisites: CPTR 115, MATH 106

### CPTR 132 4 S Data Structures and Algorithms I

Topics include: Abstract data types, lists, stacks, queues, trees, sets, recursion, heaps, priority queues, graphs, and algorithms for sorting and searching.

Three lectures and one laboratory per week. Prerequisite: CPTR 131

### CPTR 224 4 F Assembly Programming

Techniques of assembly language programming for both Intel and Motorola processors; low-level program interaction with embedded systems and with the operating system. Emphasis on low-level data manipulation and implementation of structured programming forms in assembly language. Three lectures and one laboratory per week. Prerequisite: CPTR 115

### CPTR 234 3 W Programming in C++

Programming in the C++ computer language. Topics include control structures, basic input/output, classes, constructors and destructors, inheritance, polymorphism, operator overloading, and templates. Two lectures and one laboratory per week. Prerequisite: CPTR 115.

### CPTR 246 3 S Object-oriented Design

Methodology of object-oriented analysis, design, and implementation. Includes basic UML. Two lectures and one laboratory per week. Prerequisite: CPTR 132.

### UPPER-DIVISION COURSES:

### CPTR 326 4 F Computer Languages

Principles underlying the design of programming languages using examples from different language paradigms. Topics include syntax, semantics, types, scope, and parameters. Prerequisites: CPTR 132, CPTR 224. Odd years.

### CPTR 346 4 W Data Structures and Algorithms II

An advanced look at data structures and algorithms. Topics include asymptotic analysis, recurrences, sorts, balanced trees, dynamic programming, spanning trees, shortest-paths, networks, string matching, and NP-completeness. Prerequisites: CPTR 132, MATH 355. Even years.

### CPTR 347 4 W Database Systems

Objectives and methods of organizing information into databases. Relationship modeling; normal forms and the relational model; data description, query processing, query optimization, and security. Three lectures and one laboratory per week. Prerequisites: CPTR 132, MATH 275. Odd years.

### CPTR 348 3 S Programming for the Internet

Server-side and client-side programming for the Internet, including connecting to databases. The use of Perl, CGI scripts, Javascript, Java, HTML, DHTML, and XML. Prerequisite: CPTR 347. Odd years.

### CPTR 357 4 F Computer Architecture

Elements of digital computer organization. Implementation of combinational logic, gates, decoding, and arithmetic functions. Storage of information, registers, and memory; addressing modes, the ALU, clocking, and control; input/output interrupts, and DMA. Three lectures and one laboratory per week. Prerequisite: CPTR 224. Even years.

# Computer Science

## **CPTR 367** **4 F** **Communications and Networking**

Topics include: network topologies, routing, reliability, security, data transmission, communications protocols, error detection/correction, and the Internet. Three lectures and one laboratory per week. Prerequisite: CPTR 132. Even years.

## **CPTR 396** **.5 F, W, S** **Seminar**

(See also BIOL 396, CHEM 396, ENVR 396, PHYS 396)

Topics of current interest in the natural sciences are presented and discussed. Some quarters there is a computer science-specific seminar that is independent from the joint sciences seminar. Repeatable to a maximum of 2 credits. Graded S/F.

## **CPTR 398** **1-3 F, W, S** **Individual Programming Language Study**

Supervised individual study of a particular programming language not normally taught in an existing course. The study typically consists of developing solutions to a series of programming problems that are then implemented in the selected language. Languages suitable for this course include, but are not limited to, LISP, SCHEME, Ada, Smalltalk, Prolog, Perl, PHP, Turing, Visual Basic, and Python. A minimum of 30 hours of programming activity is expected for each unit of credit. Repeatable for credit. Prerequisites: CPTR 132, 224.

## **CPTR 426** **4 F** **Software Engineering**

Principles of organization and execution of a multiperson programming project, including issues in managing and organizing people. Tools and language features available to aid the development of large projects; classical and agile methods, including XP and scrum; ethics in the software area. A suitable project is undertaken by the class as a whole. The project varies from year to year depending upon class size, background, and interest. Two lectures and two laboratories per week. Prerequisite: CPTR 246. Odd years.

## **CPTR 437** **3 S** **Computer Graphics**

Covers the basic algorithms and techniques of displaying and manipulating three-dimensional graphics. Topics include: applied geometry, rotations, translations, scaling, perspective, hidden-face elimination, curves, and surfaces. Two lectures and one laboratory per week. Prerequisites: CPTR 132, MATH 265. Even years.

## **CPTR 447** **3 W** **Operating Systems**

Multiprogramming and time-sharing system-design principles. Topics include processes and process communication, control of input-output, memory management, scheduling, file systems, protection, and resource allocation. Prerequisites: CPTR 132, 224, MATH 131. Odd years.

## **CPTR 455** **3 W** **Theory of Computation**

Theoretical models of computation. Topics include: grammars, languages, automata, the Church-Turing thesis, and computability. Prerequisite: MATH 355. Even years.

## **CPTR 466** **3 S** **Senior Project**

An independent project arranged in consultation with the computer science faculty. Ideally there will be several students, perhaps from multiple departments, working on different aspects of the project. Designed to demonstrate competence in computer science. Requires a public presentation of the project.

## **CPTR 485** **1-4, Arranged** **Special Topics in Computer Science**

Computer science-related topics of interest to the general student. Format depends on the particular topic selected but usually consists of several lectures over approximately two or three weeks. With approval of the department chair, credit may apply toward a computer science major.

## **CPTR 494** **1-3 F, W, S, Su** **Computer Science Internship**

Supervised work experience in a computer science-related field. Skills in the application of computer science principles are used. Enrollment limited to department majors. Advanced approval of the department is required. May not be taken before the end of the sophomore year. Prerequisite: CPTR 246. Qualifies for IP grading. Graded S/F.

## **CPTR 495** **1-3 Arranged** **Independent Study**

With the approval of the department chair, qualified students majoring in computer science may undertake independent study of a problem suited to their background and experience. Repeatable to a maximum of 3 credits.



## Faculty

*Thomas Lee, chair; Jean Buller, Marsha Crow (credential analyst), Charaine Lucas, Jim Roy*

*Departmental Office: 203 Education Building; 965-7265*

## Degrees and Programs

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The EDUCATION DEPARTMENT offers a variety of programs:

The Early Childhood Education majors and minor prepare individuals to pursue careers involving work with young children (birth to eight years). The A.S., the B.S., and the minor each meet requirements for different levels of the California Child Development Permit.

The Liberal Studies major is the recommended undergraduate degree for individuals wishing to be elementary teachers.

The first stage of credentialing is the California SB2042 Preliminary Multiple Subject and/or Single Subject Credential. The credential can be earned concurrently with the undergraduate program, as a post-baccalaureate non-degree program, or as a Master of Arts in Teaching (M.A.T.) program. The SDA Basic certificate can be earned concurrently with any of these options.

The second stage of credentialing is the Clear Credential Program. The program is available during the summers for individuals employed in an SDA school as a full-time teacher of record. The Master of Education (M.Ed.) is offered during the summers as well.

The Teacher Education Program is approved by the California Commission on Teacher Credentialing and by the Office of Education, General Conference of Seventh-day Adventists.

## Mission

The mission of the Education Department is to develop professional, dedicated, committed, Christian teachers who have the skills and teaching strategies necessary to create a rigorous, stimulating, and caring classroom climate where learning takes place for all students.

## Vision

As a Seventh-day Adventist institute of higher education, we believe education should restore human beings into the image of God. Our vision is to prepare teacher candidates who can lead their students into saving, transforming relationships with Jesus Christ through the development of the whole child: spiritual, physical, intellectual, and socio-emotional. In so doing, we- will be helping to fulfill the commission of preaching the gospel to all the world.

To achieve our mission to prepare pre-service candidates for a successful teaching career, a career that reflects their commitment to the profession, to children and their families, and to the future, we are committed to inspiring and supporting our candidates to be knowledgeable and skilled in the following elements:

- **Intentional friendship:** *Candidates will understand the importance of positive relationships between all those involved with student success- students with other students, teachers with students, and teachers with other teachers.*
- **Relevant, engaging curriculum leading to competence and mastery:** *Candidates will understand how to create relevant learning experiences for students, and evaluate them through effective assessments.*
- **Non-coercive, well-managed classrooms:** *Candidates will understand how to manage classrooms effectively and to do so without reliance on coercive or manipulative strategies.*
- **Applied Christianity:** *Candidates will recognize the value of applying the principles of a Christian life within the classroom setting and supporting students as they find their way on their personal Christian journeys.*

## Education

### California Child Development Permit

The California Child Development Permit is issued by the California Commission on Teacher Credentialing (CCTC). The permit is organized into different levels, each authorizing the holder to perform different levels of service in child development programs. Additional information regarding the permit can be found online at <http://www.ctc.ca.gov/credentials/CREDS/child-dev-permits.html>.

The Early Childhood Education programs at PUC meet the requirements for different levels of the permit as follows:

#### A.S. in Early Childhood Education

Meets the requirements for the California Child Development Teacher Permit. Appropriate for individuals who plan to teach in early childhood education programs.

#### B.S. in Early Childhood Education

Meets the requirements for the California Child Development Site Supervisor Permit. Appropriate for individuals who plan to teach in and direct early childhood education programs. May also be combined with the Teacher Education Program for the multiple subject teaching credential.

#### Minor in Early Childhood Education

Meets the requirements for the California Child Development Permit. Appropriate for individuals pursuing careers involving work with young children from birth through eight years old in various fields, such as Education, Nursing, Psychology, Social Work, and others.

### Major in Early Childhood Education, A.S.

*A minimum of 50 hours*

#### ► Required Core Courses (37 hours):

ECED 181	Introduction to Early Childhood Education	2
ECED 184	Health, Safety, and Nutrition	4
ECED 185	Creative Development of the Young Child	3
ECED 189	Constructive Guidance and Management	3
ECED 210	Child Protection and National Standards	2
ECED 215	Observation & Assessment of the Young Child	3
ECED 220	Early Childhood Curriculum	3
ECED 226	Spiritual/Moral Development of the Young Child	3
ECED 230	Child, Family, and Community	3
ECED 240	Infant and Toddler Care I	3
ECED 276	Student Teaching I	5
ECED 334	Child Development	3

#### ► Required Cognate Courses (13 hours):

BIOL 227	Natural History of California	4
HLED 166	Health Education	2
PSYC 121	General Psychology	4

*At least one of the following courses:* 3

COMM 105 Introduction to Communication (3)

COMM 226 Public Speaking (3)

#### ► Additional Requirements:

Valid Red Cross Standard First Aid Certificate

Valid Basic Life Support Cardiopulmonary Resuscitation course

### Major in Early Childhood Education, B.S.

*A minimum of 91 hours (42 upper-division hours)*

#### ► Required A.S. Courses (50 hours):

All requirements for the A.S. degree as described above

#### ► Required Core Courses (41 hours):

ECED 326	Physical & Social/Emotional Development of the Young Child	3
ECED 340	Infant and Toddler Care II	3
ECED 361	Admin & Supervision of ECE Programs I	4
ECED 362	Admin & Supervision of ECE Programs II	5
ECED 370	Math for the Young Child	3
ECED 371	Science for the Young Child	3
ECED 372	Language and Literacy in the Young Child	3
ECED 482	Student Teaching II	3
EDUC 101	Introduction to Teaching	1
EDUC 101L	Classroom Observations	1
EDUC 332	Computer Technology for Teachers	2
EDUC 332L	Computer Technology for Teachers Lab	1
EDUC 333	Educational Psychology	3
EDUC 336	The Multicultural Classroom	3
EDUC 340	Exceptional Children in the Classroom	3

#### ► Required Cognate Course (3 hours):

ACCT 114	Small Business Accounting	3
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### Minor in Early Childhood Education

*A minimum of 31 hours*

#### ► Required Core Courses (37 hours):

ECED 181	Introduction to Early Childhood Education	2
ECED 184	Health, Safety, and Nutrition	4
ECED 189	Constructive Guidance and Management	3
ECED 210	Child Protection and National Standards	2
ECED 215	Observation & Assessment of the Young Child	3
ECED 220	Early Childhood Curriculum	3
ECED 230	Child, Family, and Community	3
ECED 240	Infant and Toddler Care I	3
ECED 276	Student Teaching I	5
ECED 334	Child Development	3

**Liberal Studies Major, B.S.**

The Liberal Studies major is highly recommended for all individuals seeking elementary level teaching credentials. The coursework in the degree is designed specifically to:

1. Provide a strong content knowledge base in the various subjects taught in the elementary classroom; and
2. Prepare the elementary credential candidate to pass the California Subject Exam for Teachers: Multiple Subjects, passage of which is required for the credential.

*A minimum of 65 hours (26 upper-division hours)*

► **Required Core Courses (65-67 hours):**

**Arts and Humanities\***

ARTD 124+125	Design and Composition I,II	3+3
DRMA 229	Acting I: Fundamentals	3
EDUC 339	ELL Pedagogy	2

**Natural Science and Mathematics\***

ASTR 115	Astronomy	5
BIOL 227	Natural History of California	4
MATH 211+212	Foundations of School Math	3+3

**Social and Behavioral Science\***

HIST 134+135	History of the United States	4+4
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*At least one of the following courses:* 3-4

PSYC 234	Human Development (4)	
PSYC 334	Child Development (3)	

*At least one of the following courses:* 3

GEOG 210	World Regional Geography (3)	
GEOG 220	Geography of the Americas (3)	

**Education**

EDUC 101	Introduction to Teaching	1
EDUC 333	Educational Psychology	3
EDUC 340	Exceptional Children in the Classroom	3
EDUC 345	Elementary School Math and Science	4
EDUC 353	Beginning Reading and Writing	4
EDUC 356	Intermediate Reading and Writing	4
EDUC 357	Social Studies and the Arts	3

**Interdisciplinary or Integrative Course** 3-4

PHYS 485	Issues in Science and Religion (3)	
PSYC 435	Psychology of Religion (3)	
PSYC 490	Issues in Religion, Ethics, & Human Sci. (4)	
RELH 360	Adventist Heritage (4)	
SOCI 435	The Sacred and Profane in Society (3)	

► **General-Education Requirements (86-99 hours):**

Students who wish to obtain the Liberal Studies major must complete specific general education courses as follows:

**I. Foundations of Learning (15 hours)**

COMM 105 or 226	Intro to Comm or Public Speaking	3
ENGL 101+102	College English	4+4
STAT 222	Introduction to Statistics	4

**II. Foundations of Faith (18 hours)**

*Eighteen hours of religion:* 18

Complete the religion requirement as described on p. 36-37 of this catalog. Include the following:

REL 205 or 220	Christian Beliefs (3) or SDA Beliefs (3)	
RELH 360	Adventist Heritage (4)	
6 hours of RELB coursework		

**III. History and Social Sciences (15-16 hours)**

HIST 101+102	History of World Civilizations	4+4
PSYC 121	General Psychology	4
1 additional course from Section II-B: Social Sciences		3-4

**IV. Arts and Humanities (14-15 hours)**

ENGL 301	Great Books	4
MUHL 105 or 245	Survey of Music or World Music	3
PHIL 101	Introduction to Philosophy	4

*One of the following courses:* 3-4

ARTH 107	America in Art (3)	
ARTH 115	History of Western Art I (4)	
ARTH 116	History of Western Art II (4)	
ARTH 278	Women in Art (3)	

**V. Science and Mathematics (12-20 hours)**

BIOL 105	Introduction to Biology	5
CHEM 101	Introductory Chemistry	4
GSCI 205	Scientific Discoveries	3

*At least one of the following options:* 0-8

A full year of Algebra II with semester grades of C or better from an accredited secondary institution

Approved algebra waiver exam

MATH 095+096	Basic Algebra I+II (4+4)	
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**VI. Health and Fitness (8 hours)**

HLED 166	Health Education	2
EDUC 476	Physical Education for Children	3
3 ESAC courses, including 1 aerobics course		1+1+1

**VII. Practical and Applied Arts (4-7 hours)**

EDUC 332+L	Computer Tech for Teachers + Lab	2+1
Select 1 additional course from Section VII: A, C, or D.		1-4

\* Courses used to satisfy general education requirements may not be used to satisfy requirements in the this area.

### **Teacher Education Program for the Multiple Subject (Elementary) Credential**

- Undergraduate program
- Post-baccalaureate non-degree program
- Master of Arts in Teaching (M.A.T.) program

The California SB2042 Preliminary Multiple Subject Teaching Credential can be earned concurrently with the undergraduate program, as a post-baccalaureate non-degree program, or as a Master of Arts in Teaching (M.A.T.) program. Students may also earn the SDA Basic Elementary certificate. Students should consult with the credential analyst to determine the appropriate program for their needs.

#### **Prerequisites for Admission to the Credential Program**

Candidates must be formally admitted to the credential program before they will be admitted to methods courses or field experiences.

##### ► *Prerequisites for all applicants*

1. Complete EDUC 101- Introduction to Teaching and EDUC 101L- Classroom Observations.
2. Pass the CBEST and confirm that the CBEST verification card is on file in the Credential Office.
3. Submit the complete application packet as follows:
  - a) Application form
  - b) Advisor Interview
  - c) Personal Statement
  - d) Recommendation
  - e) Official transcripts from all high school and college work
  - f) Certificate of Clearance (criminal record check)
  - g) SDA church membership verification
4. Complete the admissions interview.

##### ► *Additional prerequisites for undergraduate applicants*

1. Demonstrate a minimum cumulative GPA of 2.5.
2. Complete the residence requirement: One successful quarter at Pacific Union College or acceptance from another teacher education program.
3. Select a bachelor's degree. It is highly recommended that candidates complete the B.S. in Liberal Studies as this degree prepares the candidate to pass the CSET and gives the subject matter content needed to teach elementary school.  
*Please note: Program admission by the end of the sophomore year is highly recommended.*

##### ► *Additional prerequisites for post-baccalaureate non-degree applicants*

1. Demonstrate a minimum cumulative GPA of 2.5.
2. Submit official documentation demonstrating completion of a four-year bachelor's degree from a regionally-accredited institution of higher education.
3. Register for, attempt, or pass the California Subject Exam for Teachers (CSET), Multiple Subjects, Tests 1,2,3.

##### ► *Additional prerequisites for M.A.T. applicants*

1. Demonstrate a minimum cumulative GPA of 2.75.
2. Submit official documentation demonstrating completion of a four-year bachelor's degree from a regionally-accredited institution of higher education.
3. Pass the California Subject Exam for Teachers (CSET), Multiple Subjects, Tests 1,2,3.

#### **Prerequisites for Full-Time Student Teaching (EDUC 493)**

Candidates must meet the following prerequisites prior to participation in the full-time student teaching experience.

1. Obtain acceptance into the credential program.
2. Demonstrate a minimum cumulative GPA of 2.5 (undergraduate and post-baccalaureate non-degree candidates) or 2.75 (M.A.T. candidates).
3. Obtain clearance from vice-president for student life.
4. Pass the CSET-Multiple Subjects, Subtests 1, 2, 3 according to the following timeline:  
M.A.T. candidates must pass the CSET prior to program admission.  
All other candidates must pass the CSET one full quarter prior to student teaching.
5. Complete the following coursework and field experience requirements: EDUC 339, 340, 345, 353, 356, 490, 491, 492, 493- Math, 493- Reading, and Pre-Session Student Teaching.
6. Pass Department Reviews #1 and #2.
7. Pass the following Teaching Performance Assessments: Subject-Specific Pedagogy, Designing Instruction, and Assessing Learning.

#### **Requirements for the Teaching Credential**

To be recommended for the California SB2042 Preliminary Multiple Subject Teaching Credential and/or the SDA Basic Elementary certificate, candidates must hold a bachelor's degree from an accredited institution, and have completed satisfactorily all the course work, field work, and examinations required by the professional education program as described on these pages.



## Coursework Requirements Multiple Subject (Elementary) Credential

### - Undergraduate program

### - Post-baccalaureate non-degree program

### - Master of Arts in Teaching (M.A.T.) program

#### ► Prerequisite Coursework

EDUC 101 Introduction to Teaching (1)

EDUC 101L Classroom Observations (1)

#### ► Basic Core (16 hours)

EDUC 332 or 532 Computer Technology for Teachers 2

EDUC 332L or 532L Computer Technology Laboratory 1

EDUC 333 or 533 Educational Psychology 3

EDUC 335 or 535 Ethical Dimensions of  
Teaching and Learning 2

EDUC 336 or 536 The Multicultural Classroom 3

EDUC 339 or 539 ELL Pedagogy 2

EDUC 340 or 540 Exceptional Children/Classroom 3

#### ► Instructional Methods Core (39 hours)

EDUC 345 or 545 Teaching Math and Science in the  
Elementary School 4

EDUC 353 or 553 Beginning Reading and Writing 4

EDUC 356 or 556 Intermediate Reading and Writing 4

EDUC 357 or 557 Social Studies and the Arts 3

EDUC 476 or 576 PE for Children 3

EDUC 477 or 577 Classroom Management 3

EDUC 490 or 590 STS: Subject Specific 1

EDUC 491 or 591 STS: Designing Instruction 1

EDUC 492 or 592 STS: Assessing Learning 1

EDUC 493 or 593 Beginning Reading Field Experience 1

EDUC 493 or 593 Math Field Experience 1

Pre-Session Student Teaching (non-credit requirement)

EDUC 493 or 593 Full-Time Student Teaching 12

EDUC 498 or 598 STS: Culminating  
Teaching Experience 1

#### ► Additional Requirements

HLED 166 Health Education (2)

Complete the U.S. Constitution requirement

Take HIST 134+135 or PLSC 124 or HIST 356 or pass the  
constitution examination available in the Credential Office

Complete a CPR course (infant/child/adult)

Must be valid at time of application for credential

Pass the CSET- California Subject Exam for Teachers

Pass the CALTPA- California Teaching Performance Assessment

Pass the RICA- Reading Instruction Competence Assessment

## Requirements for SDA Certification

To be recommended for the SDA Basic Elementary certificate, candidates must complete the following additional requirements:

EDUC 368/L or 568/L K-12 Bible & Practicum

16 hours of religion coursework, including RELT 205 or  
220, RELH 360, and 6 hours of RELB coursework

## Restrictions on Courses Accepted for Transfer for the Credential Requirements

A maximum of one methods course without fieldwork may be taken by correspondence or directed study if approved by the department. Methods courses with fieldwork may not be taken by correspondence or directed study. Methods courses with fieldwork being transferred will require the fieldwork to be completed at Pacific Union College.

## Credential Coursework at the Graduate Level

The core courses for the credential are offered at both the undergraduate and the graduate level. In order to enroll in the courses offered at the graduate level, a student must have a baccalaureate degree and be admitted to the M.A.T. program. Certain credential courses at the graduate level are differentiated and include increased requirements as compared to the corresponding credential course at the undergraduate level.

## Applying Undergraduate Coursework to the M.A.T.

If students complete required credential coursework at the undergraduate level, the credit may be applied towards the M.A.T. coursework requirements. However, students must complete a minimum of 36 credits of approved graduate-level EDUC coursework to be eligible for graduation with the M.A.T. Students who need additional graduate-level EDUC credit for the M.A.T. degree may consult with their advisor in the Education Department to select appropriate graduate-level electives.

Students in the M.A.T. program are not eligible to take the credential coursework at the undergraduate level.

## Requirements for Graduation with the M.A.T.

To receive the M.A.T. with the Multiple-Subject specialization, students must meet the following requirements:

1. Complete the core coursework (55 credits) for the M.A.T.
2. Complete a minimum of 36 approved EDUC credits at the graduate level.
3. Demonstrate a minimum overall graduate GPA of 3.0 with no grade lower than B-.
4. Successfully submit the California Teaching Program Expectations (TPEs) portfolio.

## Education

### Teacher Education Program for the Single Subject (Secondary) Credential

- Undergraduate program
- Post-baccalaureate non-degree program
- Master of Arts in Teaching (M.A.T.) program

The California SB2042 Preliminary Single Subject Teaching Credential can be earned concurrently with the undergraduate program, as a post-baccalaureate non-degree program, or as a Master of Arts in Teaching (M.A.T.) program. Students may also earn the SDA Basic Secondary certificate. Students should consult with the credential analyst to determine the appropriate program for their needs.

#### Prerequisites for Admission to the Credential Program

Candidates must be formally admitted to the credential program before they will be admitted to methods courses or field experiences.

##### ► Prerequisites for all applicants

1. Complete EDUC 101- Introduction to Teaching and EDUC 101L- Classroom Observations.
2. Pass the CBEST and confirm that the CBEST verification card is on file in the Credential Office.
3. Submit the complete application packet as follows:
  - a) Application form
  - b) Advisor Interview
  - c) Personal Statement
  - d) Recommendation
  - e) Official transcripts from all high school and college work
  - f) Certificate of Clearance (criminal record check)
  - g) SDA church membership verification
4. Complete the admissions interview.

##### ► Additional prerequisites for undergraduate applicants

1. Demonstrate a minimum cumulative GPA of 2.5.
2. Complete the residence requirement: One successful quarter at Pacific Union College or acceptance from another teacher education program.
3. Select a bachelor's degree in a content area commonly taught at the secondary level. This will prepare the candidate to pass the CSET.

*Please note: Program admission by the end of the sophomore year is highly recommended.*

##### ► Additional prerequisites for post-baccalaureate non-degree applicants

1. Demonstrate a minimum cumulative GPA of 2.5.
2. Submit official documentation demonstrating completion of a four-year bachelor's degree from a regionally-accredited institution of higher education.

3. Register for, attempt, or pass the California Subject Exam for Teachers (CSET) in the selected content area.

##### ► Additional prerequisites for M.A.T. applicants

1. Submit official documentation demonstrating completion of a four-year bachelor's degree from a regionally-accredited institution of higher education.
2. Demonstrate a minimum cumulative GPA of 2.75.
3. Pass the California Subject Exam for Teachers (CSET) in the selected content area.

#### Prerequisites for Full-Time Student Teaching (EDUC 494)

Candidates must meet the following prerequisites prior to participation in the full-time student teaching experience.

1. Obtain acceptance into the credential program.
2. Demonstrate a minimum cumulative GPA of 2.5 (undergraduate and post-baccalaureate non-degree candidates) or 2.75 (M.A.T. candidates).
3. Obtain clearance from vice-president for student life.
4. Pass the CSET in the selected content area according to the following timeline:  
M.A.T. candidates must pass the CSET prior to program admission.

Candidates earning a bachelor's degree in a content area different from the content area of the credential must pass the CSET be passed prior to taking EDUC 361 and the related first field experience.

All other candidates must pass the CSET one full quarter prior to student teaching.

5. Complete the following coursework and field experience requirements: EDUC 339, 340, 358, 361, 362, 490, 491, 492, 494- Middle School, 494- High School, and Pre-Session Student Teaching.
6. Pass Department Reviews #1 and #2.
7. Pass the following Teaching Performance Assessments: Subject-Specific Pedagogy, Designing Instruction, and Assessing Learning.

#### Requirements for the Teaching Credential

To be recommended for the California SB2042 Preliminary Single Subject Teaching Credential and/or the SDA Basic Secondary certificate, candidates must hold a bachelor's degree from an accredited institution, and have completed satisfactorily all the course work, field work, and examinations required by the professional education program as described on these pages.

## Coursework Requirements Single Subject (Secondary) Credential

### - Undergraduate program

### - Post-baccalaureate non-degree program

### - Master of Arts in Teaching (M.A.T.) program

#### ► Prerequisite Coursework

EDUC 101 Introduction to Teaching (1)

EDUC 101L Classroom Observations (1)

#### ► Basic Core (16 hours)

EDUC 332 or 532 Computer Technology for Teachers 2

EDUC 332L or 532L Computer Technology Laboratory 1

EDUC 333 or 533 Educational Psychology 3

EDUC 335 or 535 Ethical Dimensions of  
Teaching and Learning 2

EDUC 336 or 536 The Multicultural Classroom 3

EDUC 339 or 539 ELL Pedagogy 2

EDUC 340 or 540 Exceptional Children/Classroom 3

#### ► Instructional Methods Core (30 hours)

EDUC 358 or 558 Literacy in the Content Areas 3

EDUC 361 or 561 Middle School Teaching Strategies 3

EDUC 362 or 562 Secondary Content Area  
Teaching Strategies 3

EDUC 477 or 577 Classroom Management 3

EDUC 490 or 590 STS: Subject Specific 1

EDUC 491 or 591 STS: Designing Instruction 1

EDUC 492 or 592 STS: Assessing Learning 1

EDUC 494 or 594 Middle School Field Experience 1

EDUC 494 or 594 High School Field Experience 1

Pre-Session Student Teaching (non-credit requirement)

EDUC 494 or 594 Full-Time Student Teaching 12

EDUC 498 or 598 STS: Culminating  
Teaching Experience 1

#### ► Additional Requirements

HLED 166 Health Education (2)

Complete the U.S. Constitution requirement

Take HIST 134+135 or PLSC 124 or HIST 356 or pass the  
constitution examination available in the Credential Office

Complete a CPR course (infant/child/adult)

Must be valid at time of application for credential

Pass the CSET- California Subject Exam for Teachers

Pass the CALTPA- California Teaching Performance Assessment

## Requirements for SDA Certification

To be recommended for the SDA Basic Secondary certificate, candidates must complete the following additional requirements:

16 hours of religion coursework, including RELT 205 or 220, RELH 360, and 6 hours of RELB coursework

EDUC 368/L or 568/L K-12 Bible & Practicum (recommended but not required for the SDA Basic Secondary certificate)

## Restrictions on Courses Accepted for Transfer for the Credential Requirements

A maximum of one methods course without fieldwork may be taken by correspondence or directed study if approved by the department. Methods courses with fieldwork may not be taken by correspondence or directed study. Methods courses with fieldwork being transferred will require the fieldwork to be completed at Pacific Union College.

## Credential Coursework at the Graduate Level

The core courses for the credential are offered at both the undergraduate and the graduate level. In order to enroll in the courses offered at the graduate level, a student must have a baccalaureate degree and be admitted to the M.A.T. program. Certain credential courses at the graduate level are differentiated and include increased requirements as compared to the corresponding credential course at the undergraduate level.

## Applying Undergraduate Coursework to the M.A.T.

If students complete required credential coursework at the undergraduate level, the credit may be applied towards the M.A.T. coursework requirements. However, students must complete a minimum of 36 credits of approved graduate-level EDUC coursework to be eligible for graduation with the M.A.T. Students who need additional graduate-level EDUC credit for the M.A.T. degree may consult with the advisor in the Education Department to select appropriate graduate-level electives.

Students in the M.A.T. program are not eligible to take the credential coursework at the undergraduate level.

## Requirements for Graduation with the M.A.T.

To receive the M.A.T. with the Single-Subject specialization, students must meet the following requirements:

1. Complete the core coursework (46 credits) for the M.A.T.
2. Complete a minimum of 36 approved EDUC credits at the graduate level.
3. Demonstrate a minimum overall graduate GPA of 3.0 with no grade lower than B-.
4. Successfully submit the California Teaching Program Expectations (TPEs) portfolio.

## Education

### Clear Credential Program

A program leading to professional certification is available as a Clear Credential Program. The program results in both a California SB2042 Clear Credential and a Seventh-day Adventist Professional Teaching Certificate. Completion of the program does not culminate in a post-baccalaureate degree unless if it is combined with the M.Ed. degree.

#### Prerequisites for the Clear Credential Program

Applicants must meet the following prerequisites before being considered for admission to the Clear Credential Program:

1. Hold a bachelor's degree from an accredited institution
2. Hold a California Preliminary SB2042 teaching credential
3. Verify full-time employment in an SDA school where a California Induction/BTSA program is unavailable.
4. Have a minimum cumulative GPA of 2.5
5. Submit an application for program admission
6. Submit two satisfactory professional recommendations

#### Course Requirements for the Clear Credential Program

EDUC 580A	Clear Cred. Orientation & Review, Part 1	.5
EDUC 580B	Clear Cred. Orientation & Review, Part 2	.5
EDUC 581	Clear Cred. Standard 5: Pedagogy	1.5
EDUC 581L	Clear Cred. Standard 5: Fieldwork	2
EDUC 582	Clear Cred. Standard 6: Universal Access	1.5
EDUC 582L	Clear Cred. Standard 6: Fieldwork	2
EDUC 583	Clear Cred. Capstone	1

Once started, the 9 units of coursework for this program must be completed within a scheduled two-year cycle.

Further information regarding the Clear Credential Program can be obtained from the Credential Analyst.

### The M.A.T. and the M.Ed.

The Pacific Union College Education Department offers two distinct masters degrees, the M.A.T. and the M.Ed.

The M.A.T. (Master of Arts in Teaching) is for the post-baccalaureate student who has not earned a preliminary teaching credential. The program is designed for full-time enrollment during the academic year and is focused on the practice of the teaching profession. As a professional degree, the M.A.T. does not provide a foundation for further graduate study.

The M.Ed. (Master of Education) is for the post-baccalaureate student who has earned a preliminary teaching credential and is employed as a teacher. The program is designed for part-time enrollment during the summer and combines professional practice with scholarly research. As a research degree, the M.Ed. provides a foundation for further graduate study in a doctoral program if desired.

### Master of Education Degree, M.Ed.

This degree meets the requirements for the SDA Professional Credential and may be combined with the Clear Credential Program if desired. The program is designed for part-time enrollment during the summers and is completed over a period of several years.

#### Admission to the Master of Education Degree Program

All potential students, including former Pacific Union College students, must apply for admission both to the college and to the M.Ed. program.

The application will be considered once official postsecondary transcripts and other requested materials have been filed with the Education Department. Upon review of the application, the department will notify the applicant of the action taken.

Admission is determined by the Education Department faculty on the basis of credentials held, recommendations, former academic performance, and background. The college reserves the right to cancel the acceptance of any person for graduate study should further evidence indicate that he or she does not adequately meet requirements for the M.Ed. program.

#### Prerequisites for Admission to the M.Ed. Program

1. A baccalaureate degree from a regionally-accredited institution of higher education.
2. A state credential or SDA credential, or eligibility for these credentials.
3. Admission to Pacific Union College.
4. Submission of a graduate application to the Education Department that includes the following:
  - a) application form
  - b) two recommendations
  - c) official transcripts
  - d) interview with department chair and one other Education faculty member
  - e) essay discussing interests and goals
5. A minimum GPA of 3.0 in each of the following areas:
  - a) Undergraduate upper-division major
  - b) Education courses
  - c) Overall college work, or the last 96 quarter hours
6. Acceptable scores in the Graduate Record Examination (GRE) General Test.
7. A proposed program of studies appropriate to the student's strengths, interests, and professional goals.

A student who has been accepted for graduate study in another accredited institution of higher education and wishes to earn credit for transfer should apply as a guest student and is not required to follow the regular M.Ed. admission procedures.

**Previous and Transfer Credit**

The department chair or the credential analyst must approve any coursework taken prior to admission to the program.

A maximum of 12 quarter hours of approved transfer credits may be applied toward the degree.

Credit earned by correspondence, examination, student teaching or continuing education is not applicable to the M.Ed. course requirements.

**Reserved Credit**

Students who have completed 135 hours toward a baccalaureate degree and who will be eligible to apply for admission to the M.Ed. program after graduation may request to reserve a maximum of 8 quarter hours of approved upper-division courses for application to the M.Ed. provided that they are not needed to fulfill requirements for the bachelor’s degree or the preliminary credential. Students interested in this option should make arrangements with the Education Department and the Records Office.

**The Program of Studies**

The Education Department faculty will work with each student to construct an acceptable Program of Studies and will monitor progress during the period of graduate study.

- The Program of Studies must provide for the following:
1. removal of any undergraduate deficiencies,
  2. sequencing of course work so that all requirements are completed within the seven-year limit,
  3. completion of all departmental and college requirements for the degree.

**Requirements for Graduation with the M.Ed.**

M.Ed. candidates have the option of fulfilling requirements under the catalog of their first enrollment or any subsequent catalog during the time of continuous enrollment. To receive the M.Ed., students must meet the following requirements

1. Satisfactory completion of approved Program of Studies.
2. A minimum overall graduate GPA of 3.0 with no grade lower than B-.
3. Satisfactory completion of examinations and projects as determined by the student’s Committee on Studies.
4. Completion of requirements within seven calendar years beginning with the first enrollment in courses counting toward the master’s degree or date of acceptance into the program, whichever comes first. Students who take these courses at any time during the seven-year period are considered to have continuous enrollment status. A time extension requires approval from the Education Department.

**Coursework Requirements  
Master of Education, M.Ed.  
(Program offered during summers only)**

*A minimum of 45 hours*

► *Pedagogy Requirements (27 hours):*

EDUC 510	Leadership in Education	2
EDUC 513	Advanced Instructional Strategies	3
EDUC 513L	Field Experience	1
EDUC 515	Educational & Psychological Evaluation	3
EDUC 516	American Curriculum	3
EDUC 517	Current Issues in Education	2
EDUC 525	Teaching Children with Reading Difficulties	3
EDUC 525L	Field Experience	1
EDUC 530	Brain Research and Learning	3
EDUC 538	Computers in the Classroom, Level 2	2
EDUC 538L	Computer Lab	1
EDUC 550	Advanced Study of Exceptional Children in the Classroom	3

► *Action Research Project (7 hours)*

EDUC 596	Methods in Research	2
EDUC 597	Action Research Project	5

► *Subject Matter Courses (11 hours)* 11

At least 11 hours of graduate-level (or reserved graduate) electives, chosen in consultation with Education and Subject Matter advisors and designed to strengthen subject matter knowledge.

For Clear Credential Program participants  
The Clear Credential Program coursework (9 credits) may be applied.

For the SDA Professional Elementary Certificate  
If not taken previously, coursework must include two of the following- Fine Arts Methods, PE Methods, Children’s Literature, Applied Arts Methods.

For the SDA Professional Secondary Certificate  
If not taken previously, coursework must include Education of the Exceptional Student, Multicultural Education, Learning Theory/Style, and Reading in Content Areas.

**Ryan Clear Credential**

Candidates pursuing a Ryan Clear Credential may take EDUC 350 in place of EDUC 550.  
Candidates desiring a Ryan Clear Credential must also complete a Health Education course (topics must include drugs, alcohol, tobacco, and nutrition) and a CPR course (infant/child/adult). Although required for certification, these courses are not part of the M.Ed. curriculum.

## Education

### Early Childhood Education

LOWER-DIVISION COURSES:

#### **ECED 181** **2 F** **Introduction to Early Childhood Education**

A general overview of early childhood education. Includes basic child development, history of early childhood education, types of programs, qualifications and characteristics of successful teachers, career opportunities, teaching permit information, and current issues.

#### **ECED 184** **4 W** **Health, Safety, and Nutrition**

An holistic examination of health, safety, and nutrition and their effect on the well-being of children. How to prepare and maintain a safe and healthy environment and encourage good nutrition for young children. Helps meet State requirements for specified training in preventative health practices. Odd years.

#### **ECED 185** **3 W** **The Creative Development of the Young Child**

Focus on the integration of creative activities such as visual art, music, movement and dramatic play. Includes a field experience with groups of children to plan and implement relevant curriculum activities. Explores the concept of creativity and its importance in the field of early childhood education.

#### **ECED 189** **3 W** **Constructive Guidance and Management**

An exploration of the techniques and strategies designed to enhance effective and positive guidance and discipline practices. Methods for teaching young children autonomy and self-discipline, while promoting development of positive self-concept and prosocial behaviors. Focus on the creation of a positive and caring environment for young children.

#### **ECED 210** **2 S** **Child Protection and National Standards**

The medical, legal, and social implications of suspected abuse. Recognition of the role of the educator and physician in preventing child abuse and family violence, through routine assessment of family dynamics, early identification of children at risk, and cooperation with community services that support families.

#### **ECED 215** **3 S** **Observation and Assessment of the Young Child**

An introduction to a variety of observation and guidance techniques that can be used with children in early childhood education programs. Includes an emphasis on observing young children and assessing their early childhood learning environments.

#### **ECED 220** **3 W** **Early Childhood Curriculum**

A theoretical and experiential investigation of curriculum in the preschool environment. Emphasis on continuity of learning experiences for children and the use of materials for instructional purposes.

#### **ECED 226** **3 F** **The Spiritual/Moral Development of the Young Child**

Understanding how the moral/spiritual development is the domain in which children grow in their ability to think and act according to their understanding of what is right and wrong. Explores children's development of moral understanding and their consequent ability to act increasingly with the needs of others in mind and to resolve moral dilemmas based on ideals of justice, fairness, or caring. Theories by Lawrence Kohlberg, Jean Piaget and Carol Gilligan.

#### **ECED 230** **3 W** **Child, Family, and Community**

Acknowledges the value and necessity of collaboration between parents, teachers, and the community in support of children. Includes the challenges facing contemporary families, the needs of families with diverse backgrounds, available community resources, political awareness, and child and family advocacy. Effective methods of communication with families and community members will be practiced. Even years.

#### **ECED 240** **3 W** **Infant and Toddler Care I**

A study of the care and education of infants and toddlers (birth to age three) in group settings such as child care centers, family child care homes, and Early Head Start. Includes the support of the whole child in a safe, responsive environment. Emphasizes relationship-based care along with state-mandated requirements for the child under age three.

**ECED 276 5 F, W, S**

**Student Teaching I**

Supervised practicum (150 hours) lasting the entire quarter in an infant/toddler setting. Students will participate in activities carried out by early childhood educators working with infants and toddlers within early childhood settings. Also includes seminar activities and discussion with the course instructor. Prerequisites: ECED 181, 189, 210, 215, 240, 334, fingerprint clearance. Graded S/F.

UPPER-DIVISION COURSES:

**ECED 326 3 W**

**The Physical & Social/Emotional Development of the Young Child**

Participation in a balance of indoor and outdoor play, self-directed play, teacher-directed activities and ample physical experiences. Also explores foundations of knowledge about social and emotional development. Analysis of developmental theories as they apply to young children's emotional and social development; includes the effects of social and emotional development on learning. Odd years.

**ECED 334 3 F**

**Child Development**

(See PSYC 334.)

**ECED 340 3 S**

**Infant and Toddler Care II**

The design and implementation of age-appropriate activities and routines for infants and toddlers. Focus on planning developmentally-appropriate curriculum to include all domains of the child- physical, cognitive, emotional, and social. Odd years.

**ECED 361 4 F**

**Administration and Supervision of ECE Programs I**

Techniques and knowledge needed to develop and administer a quality early childhood center, including assessment of community need, licensing guidelines, board development, budget and financial planning, development of the center (equipping, staffing, enrolling children), evaluation, and development of parent and community support. Even years.

**ECED 362 5 W**

**Administration and Supervision of ECE Programs II**

Study of the competencies required in the successful operation of a child development center. Includes marketing, recruitment, human resource management, facilities and risk management, professional development and leadership skills. Even years.

**ECED 370 3 F**

**Math for the Young Child**

An organized, sequential approach to creating math curriculum for young children. Methods of teaching math concepts such as classification, shapes, spatial sense, seriation, numbers, and measurements. Taught using naturalistic, informal, and structural types of learning. Stresses the integration of math with language arts, science, social studies, art, and music and movement. Even years.

**ECED 371 3 F**

**Science for the Young Child**

Methods of teaching science to young children. How to teach children to explore, classify, compare, contrast, and hypothesize in physical science, biology, and botany. Odd years.

**ECED 372 3 F**

**Language and Literacy in the Young Child**

Emergent literacy for the young child involving the skills, knowledge, and attitudes that are developmental precursors to conventional forms of reading and writing. Involvement of children in literacy through real life experiences, children's literature, phoneme awareness, and early reading and writing. Odd years.

**ECED 482 3 F, W, S**

**Student Teaching II**

Supervised field experience (90 hours) in a preschool setting under the direction of an early childhood licensed teacher. Students will be expected to demonstrate mastery of subject matter, teaching competence, and potential for future improvement. Prerequisites: ECED 181, 184, 189, 210, 215, 220, 240, 334, 370, 371, 372 fingerprint clearance. Graded S/F.

**ECED 495 1-3 Arranged**

**Independent Study**

Offers the advanced student opportunity to pursue investigation in a field of special interest under the direction of department faculty.

## Education

### Education

#### LOWER-DIVISION COURSES:

#### **EDUC 101** **1 F, W, S** **Introduction to Teaching**

An overview of the teaching profession. Includes certification requirements, the history of education, teaching as a profession, and the characteristics of successful teachers. The program admission process begins in this class. Corequisite: EDUC 101L.

#### **EDUC 101L** **1 F, W, S** **Classroom Observations**

A 25-hour field experience that provides practical information about classroom teaching for the student who is entering the teaching profession. Involves extensive observation of teachers both in the classroom and on video. Must be completed before a student may be admitted to the credential program. Students who wish to apply credit for this course toward the requirements for a teaching credential must earn a grade of B- or better. This requirement may be waived on experience. Contact the credential analyst for more information. Corequisite: EDUC 101.

#### UPPER-DIVISION COURSES:

#### **EDUC 332** **2 F, S, Su** **Computer Technology for Teachers**

The use of computers in the elementary and secondary classroom. Development of skills in using technology to support teaching and learning. Distinguishes between technology as an “add-on” in the classroom and technology as an integral part of learning. Applies to area VII.B of the general education requirement. Prerequisite: EDUC 101, 101L. Corequisite: EDUC 332L. Odd summers.

#### **EDUC 332L** **1 F, S, Su** **Computer Technology for Teachers Laboratory**

Prerequisite: EDUC 101, 101L. Corequisite: EDUC 332. Odd summers.

#### **EDUC 333** **3 S, Su** **Educational Psychology**

Exploration of how children and adolescents learn and think in the classroom. Examines how characteristics such as intelligence, personality, cognitive and moral development, and diversity impact student learning. Includes the study of learning theories, motivation, cooperative learning, assessment, and managing a classroom. Odd summers.

#### **EDUC 335** **2 F** **Ethical Dimensions of Teaching**

Ethical and moral situations that teachers and students face. Examines the history and development of current practice. Emphasizes ideals and principles of Christian education and their application in Seventh-day Adventist schools. Compares and contrasts the philosophy of American and Adventist education. Emphasis on integrating faith and learning.

#### **EDUC 336** **3 W** **The Multicultural Classroom**

Preparation of candidates for the wide diversity of students they will encounter in the classroom. Includes an emphasis on developing methods for involving the family in the educational process. Addresses the legal basis for desegregation and multiculturalism in American Education. Emphasizes the knowledge and skills needed to help students be better informed and proactive in a multicultural society.

#### **EDUC 339** **2 F, Su** **ELL Pedagogy**

Strategies for assessing and teaching K-12 English Language Learners (ELLs), concentrating on techniques used by classroom teachers that foster development of listening, speaking, pronunciation, grammar, reading, writing, and vocabulary in a variety of content areas. Prerequisite: EDUC 101, 101L.

#### **EDUC 340** **3 W, Su** **Exceptional Children in the Classroom**

Major categories of disabilities and giftedness and strategies to meet the needs of these children in the general classroom. Information about federal and state laws pertaining to disabilities and how to write and implement an IEP. Prerequisite: EDUC 101, 101L.

#### **EDUC 345** **4 F** **Teaching Math and Science in the Elementary School**

Prepares pre-service elementary teachers in science, health, and mathematics instruction through interrelated activities in classwork and fieldwork. Emphasis on California state content standards in science, health, and mathematics; planning and implementing effective lessons for each area. Prerequisites: Credential program admission. Corequisites: EDUC 491, 493 (345L).



**EDUC 353 4 W**  
**Beginning Reading and Writing**

A comprehensive approach to teaching reading and writing in pre-kindergarten through grade three. Research on how children learn to read, diagnosis of reading difficulties, phonics, stages of writing development, and planning and delivery of appropriate reading and writing instruction based on assessment. Emphasis on early prevention of failure in literacy for at-risk children. Prerequisites: Credential program admission, EDUC 345/493 (345L), 491. Corequisites: EDUC 492, 493 (353L).

**EDUC 356 4 S**  
**Intermediate Reading and Writing**

The nature of language acquisition and the principles related to intermediate reading/language arts instruction. Instructional strategies for developing ability to transmit meaning through talking and writing and to comprehend meaning through listening and reading. Emphasizes assessment and management techniques and teaching to diverse groups of students. Includes multigrade teaching and state standard aligned instruction. Prerequisites: Credential program admission. Corequisites: EDUC 490.

**EDUC 357 3 S**  
**Social Studies and the Arts**

Aspects of teaching history, social science, visual arts, and performing arts. Implementation of state adopted content standards in these subject areas. Observation of professionals in the field, paying particular attention to content and strategies of instruction, as well as techniques for teaching art as it relates to other subject areas and careers. Emphasizes case studies, integrated units, and cross-cultural activities. Prerequisite: Credential program admission.

**EDUC 358 3 S**  
**Literacy in the Content Areas**

One of three courses preparing students for the secondary classroom. Emphasis is placed on lesson design based on 1) the unique learning characteristics of adolescents, and 2) the reading and study skills needed in each content area. Effective teaching strategies for students with diverse levels of understanding and skill, including ELL students with limited language skills. Prerequisites: Credential program admission; junior class standing. Corequisite: EDUC 490.

**EDUC 361 3 F**  
**Middle School Teaching Strategies**

One of three courses preparing students for the secondary classroom. Special focus on the unique needs of middle school students. Creation of an environment and development of learning plans that accommodate developmental characteristics of young adolescents (ages 10-14). Exploration of project-based learning, cooperative learning, direct instruction, differentiated instruction, authentic assessment, and block scheduling. Prerequisites: Credential program admission, junior class standing, and completion of 50% of the major coursework. Corequisites: EDUC 494 (361L) and EDUC 491.

**EDUC 362 3 W**  
**Secondary Content Area Teaching Strategies**

One of three courses preparing students for the secondary classroom. Focus on the high school environment and the knowledge and skills needed to plan and deliver instruction in specific content areas. Creation of assessment tools for the content area, development of effective learning units, and creation of course syllabi. Students will make sample instructional presentations in class and conduct interviews with secondary teachers in their own content areas. Prerequisites: Creden-

tial program admission, EDUC 361/494 (361L), 491, junior class standing, and completion of 50% of the major coursework. Corequisites: EDUC 494 (362L) and EDUC 492.

**EDUC 368 2 S, Su**  
**Teaching K-12 Bible**

Teaching objectives, materials, and strategies in Biblical education. Emphasizes the spiritual development of K-12 students and provides methods of teaching whereby Bible curriculum can be harmonized with that development. Explores and analyzes the Seventh-day Adventist Bible curriculum. Required for SDA elementary endorsement. Required for SDA secondary endorsement only if a Bible endorsement is desired. Prerequisite: Credential program admission. Corequisite: EDUC 368L (school years only). Available odd summers for employed teachers only.

**EDUC 368L 1 S**  
**Teaching K-12 Bible Practicum**

Designed to support EDUC 368 and place candidates in a Bible classroom within an SDA school setting. Includes observation of present practices in Bible instruction. Candidates will assist cooperating teachers as well as plan and implement a brief unit of study, based on the current class curriculum and the NAD Bible curriculum guides. Prerequisite: Credential program admission. Corequisite: EDUC 368.

**EDUC 476 3 F**  
**Physical Education for Children**

See also ESTH 476.  
 Activity interests of children and appropriate materials for different age levels; selection of materials and methods of presentation. Consists of a combination of lectures and practice. Applies as one course for the Fitness general education requirement.

## Education

### **EDUC 477** **3 F** **Classroom Management**

An overview of classroom management models, including behaviorist options, with an emphasis on redemptive approaches. Identification of personal views toward classroom organization and structure and development of classroom management plan based on “best practice” strategies. The value of effective structure, developing procedures and rules, engaging curriculum, effective communication, and consistent follow-through. Prerequisite: EDUC 101, 101L.

### **EDUC 490** **1 S** **Student Teaching Seminar:** **Subject Specific**

Guides candidates toward the successful completion of the California Teaching Performance Assessment on Subject-Specific Pedagogy. Evaluates the candidate’s ability to understand how information about a class is used to prepare instruction for particular subjects and content areas and develops and adapts student assessment plans based on the content. Also provides support for candidates as they complete their student teaching. Prerequisite: Credential program admission. Corequisite: EDUC 356 or EDUC 358. Graded S/F.

### **EDUC 491** **1 F** **Student Teaching Seminar:** **Designing Instruction**

Guides candidates toward the successful completion of the California Teaching Performance Assessment on Designing Instruction. Evaluates the ability to identify the links between students’ characteristics and learning needs. Also provides support for candidates as they complete their student teaching. Prerequisite: Credential program admission. Corequisite: EDUC 345/ 493 (345L) or EDUC 361/ 494 (361L). Graded S/F.

### **EDUC 492** **1 W** **Student Teaching Seminar:** **Assessing Learning**

Guides candidates toward the successful completion of the California Teaching Performance Assessment on Assessing Learning. Evaluates the ability to assess student learning. Also provides support for candidates as they complete their student teaching. Prerequisites: Credential program admission, EDUC 345/ 493 (345L) or EDUC 361/ 494 (361L), EDUC 491. Corequisite: EDUC 353/ 493 (353L) or EDUC 362/ 494 (362L). Graded S/F.

### **EDUC 493** **1-12 F, W, S** **Student Teaching, Full-Time,** **Elementary**

Elementary student teaching is divided into four components:

#### *a) EDUC 493 (345L)- Student Teaching, Math Field Experience (1):*

25-hour field experience completed in an upper-grade elementary school classroom. Involves observing, assisting, and actually teaching in the area of math under the direction of an experienced elementary grade teacher. Counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: Credential program admission, TB clearance. Corequisite: EDUC 345, 491. Graded S/F.

#### *b) EDUC 493 (353L)- Student Teaching, Beginning Reading Experience (1):*

25-hour field experience completed in a K-2 classroom. Involves observing, assisting, and actually teaching in the area of beginning reading and writing under the direction of an experienced primary grade teacher. Counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: Credential program admission, Department Review #1, EDUC 345/ 493 (345L), 491. Corequisite: EDUC 353, 492. Graded S/F.

#### *c) Pre-Session Student Teaching (0):*

Ten-day experience at the beginning of a school year. Involves observing and assisting a teacher just prior to the beginning of school and into the first few days of a new school year. This 10-day full-time experience counts as part of student teaching. The credit for this experience is given when a student completes full-time student teaching. Prerequisites: Department Review #1 and #2, EDUC 345/ 493 (345L), 353/ 493 (353L), EDUC 491, 492. Pre-Session Student Teaching should be completed in the summer prior to the year in which full-time student teaching takes place.

#### *d) EDUC 493- Student Teaching, Full-Time, Elementary (12):*

Full-time student teaching occurs at the conclusion of the credential program courses. It lasts for the 11 weeks of the quarter and is a full-time, full day commitment. It is not possible for the student teacher to hold a day job during this time. By the end of the experience, the student will take complete responsibility for all classroom management, instructional planning, teaching, and student assessment. Candidates employed on a regular full-time teaching contract at a grade level covered by the desired credential may petition the department to complete in-service student teaching. Prerequisites: EDUC 339, 340, 345, 353, 356, 490, 491, 492, 493 (345L), 493 (353L), Department Review #1 and #2, Pre-Session Student Teaching, Passage of the California Teaching Performance Assessment Tasks Subject-Specific Pedagogy, Designing Instruction, and Assessing Learning, Passage of CSET: Multiple Subjects. Corequisite: EDUC 498. Qualifies for IP grading. Graded S/F.

**EDUC 494 1-12 F, W, S**  
**Student Teaching, Full-Time, Secondary**

Secondary student teaching is divided into four components:

*a) EDUC 494 (361L)- Student Teaching, Middle School Field Experience (1):*

Involves 25 hours of observation and teaching in the specific content area of the credential in a middle school classroom (grades 6-8). Counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: Credential program admission, TB clearance, completion of 50% of the major coursework with GPA of 2.5 or above or passage of CSET. Corequisite: EDUC 361, 491. Graded S/F.

*b) EDUC 494 (362L)- Student Teaching, Senior High School Field Experience (1):*

Involves 25 hours of observation and teaching in the specific content area of the credential in a senior high school classroom (grades 9-12). Counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: EDUC 361/ 494 (361L), EDUC 491 completion of 50% of the major coursework or passage of CSET, Department Review #1. Corequisite: EDUC 362, 492. Graded S/F.

*c) Pre-Session Student Teaching (0):*

Ten-day experience at the beginning of a school year. Involves observing and assisting a teacher just prior to the beginning of school and into the first few days of a new school year. This 10-day full-time experience counts as part of student teaching. Credit is given when a student completes full-time student teaching. Prerequisites: EDUC 361/ 494 (361L), 362/ 494 (362), Department Review #1 and #2. Pre-Session Student Teaching should be completed in the summer prior to the year in which full-time student teaching takes place.

*d) EDUC 494- Student Teaching, Full-Time, Middle or Senior High School (12):*

Full-time student teaching occurs at the conclusion of the credential program courses. It lasts for the 11 weeks of the quarter and is a full-time, full day commitment. It is not possible for the student teacher to hold a day job during this time. By the end of the experience, the student will take complete responsibility for all classroom management, instructional planning, teaching, and student assessment. Candidates employed on a regular full-time teaching contract at a grade level covered by the desired credential may petition the department to complete in-service student teaching. Prerequisites: EDUC 339, 340, 358, 361, 362, 490, 491, 492, 494 (361L), 494 (362L), Department Review #1 and #2, Pre-Session Student Teaching, Passage of the California Teaching Performance Assessment Tasks Subject-Specific Pedagogy, Designing Instruction, and Assessing Learning, Passage of the CSET: Content Area. Corequisite: EDUC 498. Qualifies for IP grading. Graded S/F.

**EDUC 495 1-3 Arranged**  
**Independent Study**

The advanced student pursues investigation in a field of special interest under the direction of department faculty.

**EDUC 498 1 F, W, S**  
**Student Teaching Seminar: Culminating Teaching Experience**

Guides candidates toward the successful completion of the California Teaching Performance Assessment Culminating Teaching Experience. Evaluates the ability of the candidate to integrate the three previous strands of the TPA: subject specific pedagogy, designing learning, and assessing learning. Also provides support for students as they complete their student teaching. Prerequisites: Credential program admission, EDUC 490, EDUC 491, EDUC 492. Corequisite: EDUC 493 (elementary) or EDUC 494 (secondary).

**Summer Education Courses**

*Taught only during the summer. Most courses are taught on a 2-year alternating basis. Courses are open to individuals employed as full time teachers. Contact the Education Department for the list of course offerings for any specific summer.*

**EDUC 410 1-2 Su**  
**Soul Shapers: Level 1**

An in-depth study experience of Choice Theory and its application to the classroom and school setting. The writings of Scripture, Ellen White, and William Glasser provide the theoretical framework for class discussions and assignments. Experimental in nature, with learning coming out of the activities that are done during class. Meets the SDA Philosophy of Education requirement for the SDA teaching credential. Graded S/F.

## Education

### **EDUC 411** **1-2 Su** **Soul Shapers: Level 2**

Builds on the theory and insight of the Level 1 course and focuses on conferencing skills in varied school and home scenarios. Students learn to conference using the principles of Choice Theory. Immediate feedback is given throughout the course as students practice what they have learned about lead-management techniques and fostering and maintaining positive relationships. Repeatable for credit. Graded S/F.

### **EDUC 420** **1-2 Su** **Education Workshop**

Hands-on practical summer workshops for teachers seeking certification renewal credit. Offered under different subtitles on a rotating basis. Repeatable for credit under different subtitles. Graded S/F.

### **EDUC 421** **2 Su** **SDA Methods in Elementary Mathematics**

Meets the SDA Basic Elementary certification requirement for methods in mathematics. Open to practicing teachers holding a Conditional certificate; not open to students in the campus credential program. Even summers.

### **EDUC 422** **3 Su** **Reading and Writing for Life**

Meets the SDA Basic Elementary certification requirement for methods in reading and language arts. Open to employees holding a SDA Conditional certificate; not open to students in the campus credential program. Odd summers.

### **EDUC 425** **2 Su** **SDA Secondary Curriculum Methods**

Meets the SDA Basic Secondary certification requirement for secondary curriculum methods. Open to practicing teachers holding a Conditional certificate;

not open to students in the campus credential program. Odd summers.

### **EDUC 426** **2 Su** **SDA Secondary Reading Methods**

Meets the SDA Basic Secondary certification requirement for methods in secondary reading. Open to practicing teachers holding a Conditional certificate; not open to students in the campus credential program. Even summers.

### **EDUC 427** **1 Su** **Assessment & Evaluation for Beginning Teachers**

Introductory overview of educational assessment & evaluation as used in the elementary and secondary classroom. Meets the SDA Basic certification requirement for educational assessment. Open to practicing teachers holding a Conditional certificate. Even summers.

### **EDUC 430** **1-2 Su** **Kindergarten Administration**

Meets the SDA special endorsement requirements for Kindergarten teachers. Presents both SDA and state guidelines relating to student readiness and school entrance requirements. Focuses on leadership knowledge and skills needed for a successful Kindergarten program. Open to practicing teachers and students in the campus credential program. Graded S/F. Even summers.

### **EDUC 431** **1-2 Su** **Kindergarten Curriculum**

Meets the SDA special endorsement for Kindergarten teachers. The NAD curriculum framework forms the basis of course content. Practical applications for Kindergarten classrooms are emphasized. Open to practicing teachers and students in the campus credential program. Graded S/F. Odd summers.

### **EDUC 446** **2 Su** **SDA Methods in Elementary Social Studies**

Meets the SDA Basic Elementary certification requirement for methods in Social Studies. Open to practicing teachers holding a Conditional certificate; not open to students in the campus credential program. Even summers.

### **EDUC 447** **2 Su** **Real Science, Real Learning**

Meets the SDA Basic Elementary certification requirement for methods in science & health. Open to practicing teachers holding a Conditional certificate; not open to students in the campus credential program. Odd summers.

## Graduate Courses

*Prerequisite to all graduate-level courses: Admission to the M.A.T., M.Ed. or fifth-year program or department approval.*

### **EDUC 510** **2 Su** **Leadership in Education**

Students examine insights concerning themselves and their relationships with colleagues, stakeholders, and pupils that can make a real difference in their subsequent classroom attitudes and behavior. Even summers.

### **EDUC 513** **3 Su** **Advanced Instructional Strategies**

In-depth examination of progressive instructional strategies, including learner-centered strategies such as cooperative learning, critical thinking, project-based learning, and teaching to multiple intelligences. Corequisite: EDUC 513L. Qualifies for IP grading. Even summers.

**EDUC 513L** **1 Su**  
**Advanced Instructional Strategies Field Experience**

A 30-hour field experience involving application of learning theory by teaching in K-12 or college classrooms using advanced instructional techniques. Corequisite: EDUC 513. Even summers.

**EDUC 515** **3 Su**  
**Educational Assessment and Evaluation**

A multifaceted study emphasizing (a) the process of collecting information as an aid in understanding and making educational plans for pupils and (b) integrated processes for determining the nature and extent of pupil learning and development. Authentic assessment and commonly used teacher-made and standardized tests are studied. Odd summers.

**EDUC 516** **3 Su**  
**American Curriculum**

People and events that have shaped curriculum development in the United States. Includes an exploration of current and innovative school models, including Quality Schools, charter and magnet schools. Even summers.

**EDUC 517** **2 Su**  
**Current Issues in Education**

Contemporary controversial issues in public and private education. Students become aware of possible alternatives in handling the issues, and to use their creativity to search for alternate solutions. Repeatable for credit. Odd summers.

**EDUC 525** **3 Su**  
**Teaching Children with Reading Difficulties**

Diagnostic procedures and assessment instruments used to identify reading difficulties. Emphasis on instructional techniques used for remediation. Corequisite: EDUC 525L. Odd summers.

**EDUC 525L** **1 Su**  
**Teaching Children with Reading Difficulties Field Experience**

A 30-hour field experience that involves assessing and diagnosing reading difficulties, writing assessment reports and recommendations, and developing instructional plans for children identified as needing reading intervention and/or remediation. Includes critical analysis and development of learner-centered language and literacy instructional techniques, with emphasis on the remediation of elementary pupils and/or middle school/high school students with reading difficulties. Corequisite: EDUC 525. Qualifies for IP grading. Odd summers.

**EDUC 530** **3 Su**  
**Brain Research and Learning**

A critical examination of current investigations of cognitive aspects of learning. Odd summers.

**EDUC 532+532L** **2 + 1 F, S, Su**  
**Computer Technology for Teachers**

Covers the same topics as EDUC 332+332L, includes differentiated requirements for the graduate-level student. Prerequisite: M.A.T. program admission. Odd summers.

**EDUC 533** **3 S, Su**  
**Educational Psychology**

Covers the same topics as EDUC 333, includes differentiated requirements for the graduate-level student. Prerequisite: M.A.T. program admission. Odd summers.

**EDUC 535** **2 F**  
**Ethical Dimensions of Teaching**

Covers the same topics as EDUC 335, includes differentiated requirements for the graduate-level student. Prerequisite: M.A.T. program admission.

**EDUC 536** **3 W**  
**The Multicultural Classroom**

Covers the same topics as EDUC 336, includes differentiated requirements for the graduate-level student. Prerequisite: M.A.T. program admission.

**EDUC 537** **3 Su**  
**Advanced ESL Methods and Materials**

Theory and practice of second language teaching methods and materials, focusing specifically on the teaching and learning of literacy skills. Corequisite: EDUC 537L. Even summers.

**EDUC 537L** **1 Su**  
**Advanced ESL Methods and Materials Field Experience**

A teaching practicum that allows students to apply learned theory in a language classroom. Field teaching will be arranged according to students' interests and/or specific program needs. Corequisite: EDUC 537. Qualifies for IP grading. Even summers.

**EDUC 538** **2 Su**  
**Computers in the Classroom**

The uses of electronic media to communicate through collaborative tools, multimedia, web pages, and print media. Emphasis on how technology can be used to plan, locate, evaluate, select, and use information to solve problems and draw conclusions. Prerequisite: EDUC 332 or 532, or permission from the department technology instructor. Corequisite: EDUC 538L.

**EDUC 538L** **1 Su**  
**Computers in the Classroom Laboratory**

Cutting-edge technologies to enhance teaching and learning. Applications include Hyperstudio, Powerpoint, web-page design, videoconferencing, and desktop publishing. Corequisite: EDUC 538.

## Education

### **EDUC 539** **2 F, Su**

#### **ELL Pedagogy**

Covers the same topics as EDUC 339, includes differentiated requirements for the graduate-level student. Prerequisite: M.A.T. program admission.

### **EDUC 540** **3 W, Su**

#### **Exceptional Children in the Classroom**

Covers the same topics as EDUC 340, includes differentiated requirements for the graduate-level student. Prerequisite: M.A.T. program admission.

### **EDUC 545** **4 F**

#### **Teaching Math and Science in the Elementary School**

See EDUC 345. Prerequisites: M.A.T. program admission. Corequisites: EDUC 591, 593 (545L).

### **EDUC 550** **3 Su**

#### **Advanced Study of Exceptional Children in the Classroom**

Strategies for teaching students with learning disabilities in special and regular classrooms. Curriculum content and specific strategies and materials related to each academic area. Includes collection and use of formal and informal assessment information for designing the content of Individual Educational Programs (IEP) for students with disabilities in academic and behavioral areas. Prerequisite: EDUC 340. Odd summers.

### **EDUC 553** **4 W**

#### **Beginning Reading and Writing**

See EDUC 353. Prerequisites: M.A.T. program admission, EDUC 545/ 593 (545L), 591. Corequisites: EDUC 592, 593 (553L).

### **EDUC 556** **4 S**

#### **Intermediate Reading and Writing**

See EDUC 356. Prerequisites: M.A.T. program admission. Corequisites: EDUC 590.

### **EDUC 557** **3 S**

#### **Social Studies and the Arts**

See EDUC 357. Prerequisite: M.A.T. program admission.

### **EDUC 558** **3 S**

#### **Literacy in the Content Areas**

See EDUC 358. Prerequisite: M.A.T. program admission. Corequisite: EDUC 590.

### **EDUC 559** **1-2 Su**

#### **Small Schools Curriculum**

Meets the SDA requirements for a professional endorsement as a Small Schools Specialist. Focus is given to SDA curriculum guides, with a special focus on how to manage instruction in a multi-grade, multi-age setting. Open to practicing teachers holding at least a Conditional certificate; not open to students in the campus credential program. Graded S/F. Even summers.

### **EDUC 560** **1-2 Su**

#### **Small Schools Administration**

Meets the SDA requirements for a professional endorsement as a Small Schools Specialist. Focus is given to leadership skills, especially the organization knowledge and skills needed to manage a school program, while also teaching full time. Open to practicing teachers holding at least a Conditional certificate; not open to students in the campus credential program. Graded S/F. Odd summers.

### **EDUC 561** **3 W**

#### **Middle School Teaching Strategies**

See EDUC 361. Prerequisites: M.A.T. program admission. Corequisites: EDUC 594 (561L) and EDUC 591.

### **EDUC 562** **3 W**

#### **Secondary Content Area Teaching Strategies**

See EDUC 362. Prerequisites: Credential program admission, EDUC 561/ 594 (561L), 591. Corequisites: EDUC 594 (562L) and EDUC 592.

### **EDUC 566** **3 Su**

#### **Advanced Health Education**

A study of the key health concerns of youth today and how a teacher creates an environment to prevent, change or cope with health problems. Focus on local, state, and federal laws concerning health issues, communicating to students and parents, and developing skills toward advocacy. Prerequisite: HLED 166 or equivalent. Even summers.

### **EDUC 568 + 568L** **2+1 F**

#### **Teaching K-12 Bible**

See EDUC 368 + 368L. Prerequisite: M.A.T. program admission.

### **EDUC 576** **3 F**

#### **Physical Education for Children**

See EDUC 476. Prerequisite: M.A.T. program admission.

### **EDUC 577** **3 W**

#### **Classroom Management**

See EDUC 477. Prerequisite: M.A.T. program admission.

**EDUC 580A+580B .5+.5 Su**  
**Clear Credential Orientation and Review, Part 1 and Part 2**

Consists of two one-day sessions for teachers who are converting their California Preliminary Credentials into California Clear Credentials. Each session is held immediately prior to the beginning of clear credential program coursework.  
*Part 1*

The first session is an overview of the Clear Credential Program requirements at PUC, including handbook, schedule of courses, procedures, forms, evaluations, assessment and evaluation; the *California Standards for the Teaching Profession (CSTP)*; ePortfolio contents and instructions; self-assessment of CSTP competencies and development of the personal Professional Growth Plan; and instruction in the inquiry cycle and teacher action research. Prerequisite: Clear Credential Program Admission.

*Part 2*

The second session includes a review of Year One fieldwork; presentation of the mid-program portfolio; self-assessment of CSTP competencies; and revision of the personal Professional Growth Plan. Prerequisites: Clear Credential Program Admission, EDUC 580A, EDUC 581/581L or EDUC 582/582L.

**EDUC 581 1.5 Su**  
**Clear Credential Standard 5: Pedagogy**

Instruction and discussion of the elements of California Clear Credential Standard 5: Pedagogy. Review of CSTP, California adopted academic content standards and performance levels for students, and curriculum frameworks. Additional instruction in the use of instructional materials, student assessment, classroom management, safe/inclusive/healthy learning environments, and the effective use of technology in the classroom. Prerequisites: Clear Creden-

tial Program Admission, EDUC 580A. Corequisite: EDUC 581L. Odd summers.

**EDUC 581L 2 Su**  
**Clear Credential Standard 5: Fieldwork**

Implementation of Standard 5: Pedagogy in the candidate's classroom. Provides the setting where the participating teacher can successfully demonstrate understanding of the standard through regular collaboration with support providers, demonstration of CSTP knowledge and skills, use of approved academic content standards, application of the "Plan-Teach-Reflect-Apply" cycle, and continued development of the teacher's Clear Credential portfolio. Prerequisites: Clear Credential Program Admission, EDUC 580A. Corequisite: EDUC 581. Odd summers.

**EDUC 582 1.5 Su**  
**Clear Credential Standard 6: Universal Access**

Presentation and discussion of the elements of California Clear Credential Standard 6: Universal Access. Includes designing and implementing equitable and inclusive classrooms for all students, effective use of resources including technology, teaching English Learners, and teaching Special Populations. Prerequisites: Clear Credential Program Admission, EDUC 580A. Corequisite: EDUC 582L. Even summers.

**EDUC 582L 2 Su**  
**Clear Credential Standard 6: Fieldwork**

Implementation of Standard 6: Pedagogy in the candidate's classroom. Provides the setting where the participating teacher can successfully demonstrate understanding of the standard through regular collaboration with support providers, demonstration of CSTP knowledge and skills, use of approved academic

content standards, application of the "Plan-Teach-Reflect-Apply" cycle, and continued development of the teacher's Clear Credential portfolio. Prerequisites: Clear Credential Program Admission, EDUC 580A. Corequisite: EDUC 582. Even summers.

**EDUC 583 1 Su**  
**Clear Credential Capstone**

Development, organization, presentation, and submission of an ePortfolio to demonstrate ability to use and implement California Clear Credential Standards 5 & 6 and the *California Standards for the Teaching Profession* in one's own classroom. Includes a final reflective paper on the entire Clear Credential Program experience and content. Professional presentation of the portfolio to the faculty, support provides, and cohort group faculty during the final summer; submission of the portfolio to the program electronically. Prerequisites: Clear Credential Program Admission, EDUC 580A, 580B, 581, 581L, 582, 582L.

**EDUC 590 1 S**  
**Student Teaching Seminar: Subject Specific**

See EDUC 490. Prerequisite: M.A.T. program admission. Corequisite: EDUC 556 or EDUC 558. Graded S/F.

**EDUC 591 1 F**  
**Student Teaching Seminar: Designing Instruction**

See EDUC 491. Prerequisite: M.A.T. program admission, Prerequisite: Credential program admission. Corequisite: EDUC 545/ 593 (545L) or EDUC 561/ 594 (561L). Graded S/F.

## Education

### **EDUC 592** **1 W**

#### **Student Teaching Seminar: Assessing Learning**

See EDUC 492. Prerequisites: M.A.T. program admission, EDUC 545/ 593 (545L) or EDUC 561/ 594 (561L), EDUC 591. Corequisite: EDUC 553/ 593 (553L) or EDUC 562/ 594 (562L). Graded S/F.

### **EDUC 593** **1-12 F, W, S**

#### **Student Teaching, Full-Time, Elementary**

See EDUC 493.

Includes four components:

a) *EDUC 593 (545L)- Student Teaching, Math Field Experience (1):*

Prerequisites: M.A.T. program admission, TB clearance. Corequisite: EDUC 545, 591. Graded S/F.

b) *EDUC 593 (553L)- Student Teaching, Beginning Reading Experience (1):*

Prerequisites: M.A.T. program admission, Department Review #1, EDUC 545/ 593 (545L), 591. Corequisites: EDUC 553, 592. Graded S/F.

c) *Pre-Session Student Teaching (0):*

Prerequisites: M.A.T. program admission, Department Review #1 and #2, EDUC 545/ 593 (545L), 553/ 593 (553L), EDUC 590, 591, 592.

d) *EDUC 593- Student Teaching, Full-Time, Elementary (12):*

Prerequisites: M.A.T. program admission, EDUC 539, 540, 545, 553, 556, 590, 591, 592, 593 (545L), 593 (553L), Department Review #1 and #2, Pre-Session Student Teaching, Passage of the California Teaching Performance Assessment Tasks Subject-Specific Pedagogy, Designing Instruction, and Assessing Learning, Passage of CSET: Multiple Subjects. Corequisite: EDUC 598. Qualifies for IP grading. Graded S/F.

### **EDUC 594** **1-12 F, W, S**

#### **Student Teaching, Full-Time, Secondary**

See EDUC 494.

Includes four components:

a) *EDUC 594 (561L)- Student Teaching, Middle School Field Experience (1):*

Prerequisites: M.A.T. program admission, TB clearance. Corequisite: EDUC 561, 591. Graded S/F.

b) *EDUC 594 (562L)- Student Teaching, Senior High School Field Experience (1):*

Prerequisites: M.A.T. program admission, EDUC 561/ 594 (561L), EDUC 591, Department Review #1. Corequisite: EDUC 562, 592. Graded S/F.

c) *Pre-Session Student Teaching (0):*

Prerequisite: M.A.T. program admission, EDUC 561/ 594 (561L), 562/ 594 (562), Department Review #1 and #2.

d) *EDUC 594- Student Teaching, Full-Time, Middle or Senior High School (12):*

Prerequisites: EDUC 539, 540, 558, 558L, 561, 562, 590, 591, 592, 594 (561L), 594 (562L), Department Review #1 and #2, Pre-Session Student Teaching, Passage of the California Teaching Performance Assessment Tasks Subject-Specific Pedagogy, Designing Instruction, and Assessing Learning, Passage of the CSET: Content Area. Corequisite: EDUC 598. Qualifies for IP grading. Graded S/F.

### **EDUC 595** **1-3 F, W, S, Su**

#### **Independent Study**

Individual study open to students with adequate preparation in the proposed area. Repeatable to a maximum of 3 credits.

### **EDUC 596** **2 Su**

#### **Methods in Research**

Principles of disciplined inquiry and an introduction to the methods of research including planning, using resources, reviewing literature, developing methodology, and communicating evidence verbally and visually.

### **EDUC 597** **1-5 Su**

#### **Action Research Project**

The culmination of the master's degree program, involving a practical application of theoretical concepts in an actual classroom situation. Research methods and literature review are presented. After receiving formal project approval, students implement the project and, upon completion, prepare a formal written report to be shared orally with the Education faculty and other graduate students during the summer quarter. Prerequisite or corequisite: EDUC 596. Qualifies for IP grading.

### **EDUC 598** **1 F, W, S**

#### **Student Teaching Seminar: Culminating Teaching Experience**

See EDUC 498. Prerequisites: M.A.T. program admission, EDUC 590, EDUC 591, EDUC 592. Corequisite: EDUC 593 (elementary) or EDUC 594 (secondary).

### **EDUC 599** **1-3 F, W, S, Su**

#### **Directed Study**

Individual study open to students with adequate preparation in the proposed area.





## Faculty

*Cynthia Westerbeck, chair; Thorvald Aagaard, Janet Borisevich-Mezenov, Linda Gill, Georgina Hill, Sara Kakazu, Maria Rankin-Brown, Heather Reid*  
 Departmental Office: Stauffer Hall; 965-7550

## Degrees and Programs

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English majors discover a great variety of literature, including traditional English and American texts as well as newly appreciated works by women and minority writers. They explore all the genres from many perspectives, including recent critical approaches and the history of ideas. They develop and refine their writing in both critical and creative writing courses.

English majors may select one of the four emphases: British and American Literature, English Education, Teaching English to Speakers of Other Languages, and Writing.

The department also offers an Associate of Science in Film and Theater Studies for those students interested in drama. Students may select one of the three emphases: Narrative/Writing, Performance, and Technical.

## Major in English, B.A.

*A minimum of 61 hours (35 upper-division hours)*

### ► Required Core Courses (43 hours):

ENGL 223	British Literature Survey	4
ENGL 224	Literary Theory	4
ENGL 335	Survey of Linguistics	4
ENGL 346	Creative Writing (any subtitle)	4
ENGL 355	American Colonial and Romantic Periods	4
ENGL 389	Junior Seminar	1
ENGL 490	Senior Seminar	1
ENGL 492	Senior Project	1

### *At least one of the following courses:*

ENGL 356	American Realism and Naturalism (4)	4
ENGL 357	American Modernism (4)	4

### *At least one of the following courses:*

ENGL 464	English Medieval Literature (4)	4
ENGL 465	English Renaissance Literature (4)	4

### *At least two of the following courses:*

ENGL 466	The Enlightenment in Britain (4)	8
ENGL 467	The Romantic Age in Britain (4)	4
ENGL 468	The Victorian Age in Britain (4)	4
ENGL 469	The Modern Age in Britain (4)	4
ENGL 470	Contemporary Literature in English (4)	4

### *At least one of the following courses:*

ENGL 352	Theme Courses (4)	4
ENGL 484	Literature of the Bible (4)	4
ENGL 485	The Classical World (4)	4

### ► Emphases (choose one- see next page)

1. British & American Literature
2. English Education
3. Teaching English to Speakers of Other Languages
4. Writing

# English

## 1. British & American Literature Emphasis (18 hours)

ENGL 474	Shakespeare	4
<i>At least one of the following courses:</i>		
ENGL 211	Survey of Drama (4)	4
ENGL 311	Development of the Novel (4)	
ENGL 411	Poetics (4)	
<i>At least 10 hours from the following:</i>		
ENGL	American literature courses (355-357)	10
ENGL	British literature courses (464-470)	
ENGL	genre courses (211, 311, 411)	
ENGL	theme courses (210, 212, 352)	

## 2. English Education Emphasis (28-29 hours)

DRMA 229	Acting I: Fundamentals	3
ENGL 301	Great Books: Global Perspectives	4
ENGL 307	Composition Theory	3
ENGL 331	Literature for Adolescents	4
ENGL 336	Second Language Acquisition	4
ENGL 434	Advanced English Syntax	4
JOUR 141	Newswriting and Reporting	3
<i>At least one of the following courses:</i>		
ENGL 212	Shakespeare in Performance (3)	3-4
ENGL 474	Shakespeare (4)	

## 3. Teaching English to Speakers of Other Languages- TESOL- Emphasis (20 hours)

ENGL 320	Cultural/Psychological Learner Differences	2
ENGL 336	Second Language Acquisition	4
ENGL 337	ELL Pedagogy	4
ENGL 434	Advanced English Syntax	4
ENGL 443	ESL Curriculum Development and Classroom Management	4
ENGL 491	ESL Teaching Practicum	2

## 4. Writing Emphasis (18 hours)

<i>At least 18 hours from the following:</i>		
ARTD 253	Publication Technology (3)	18
ENGL 211*	Survey of Drama (4)	
ENGL 311*	Development of the Novel (4)	
ENGL 345	Advanced Expository Writing (4)	
ENGL 346	Creative Writing (up to 15 credits)	
ENGL 411*	Poetics (4)	
ENGL 434	Advanced English Syntax (4)	
ENGL 494**	Writing Internship (3)	

JOUR 141	Newswriting and Reporting (3)	
JOUR 244	Copy Editing (2)	
JOUR 443	Investigative Reporting and Writing (3)	
MDIA 140	Short Scriptwriting (2)	
MDIA 246	Screenwriting I (4)	
MDIA 247	Screenwriting II (4)	
PREL 350	Promotional Writing for the Media (3)	
<i>Recommended for students wishing to go into publishing:</i>		
ARTD 110	Design: Tools, Materials and Techniques (2)	
ARTD 150	Fundamentals of Graphic Design (3)	

## TESOL Certificate (24-25 hours)

ENGL 291	ESL Tutoring Practicum	1
ENGL 320	Cultural/Psychological Learner Differences	2
ENGL 335	Survey of Linguistics	4
ENGL 336	Second Language Acquisition	4
ENGL 337	ELL Pedagogy	4
ENGL 443	ESL Curriculum Dev & Classroom Mgmt	4
ENGL 491	ESL Teaching Practicum	2
<i>At least one of the following courses:</i>		
ANTH 124	Cultural Anthropology (4)	3-4
COMM 330	Intercultural Communication (3)	
ENGL 434	Advanced English Syntax (4)	

## Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in English should take the B.A. degree in English with the emphasis in English Education. Students will need to pass the English portion of the CSET exam one quarter prior to the full-time student teaching experience. Students are invited to discuss the program with their major advisor in the English Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the section entitled "Education" in this catalog.

\* Only one course from ENGL 211, 311, and 411 may be applied.

\*\* Most writing internships require JOUR 141 as a prerequisite.

## Major in Film & Theater Studies, A.S.

A minimum of 44 hours

### ► Required Core Courses (15 hours):

DRMA 229	Acting I: Fundamentals	3
DRMA 239	Techniques of Stage Production	3
ENGL 102	College English	4
MDIA 131	Elements of Cinematic Storytelling	3
MDIA 152	Intro to Filmmaking	2

### ► Emphases (Choose one):

#### 1. Narrative/Writing Emphasis (29 hours)

##### ► Required Emphasis Courses (13 hours):

DRMA/MDIA 289	Thesis Project	3
ENGL 211	Survey of Drama	4
MDIA 140	Short Scriptwriting	2
MDIA 246	Screenwriting I	4

##### ► Required Emphasis Electives (16 hours):

At least 10 hours from the following: 10

ARTH 260	Film History (3)
ENGL 210	Bay Area Theater (3)
ENGL 212	Shakespeare in Performance (2-3)
ENGL 346	Creative Writing (4)
ENGL 474	Shakespeare (4)
MDIA 247	Screenwriting II (4)

At least 6 hours from the following: 6

Additional coursework, selected from any of the 3 emphases

#### 2. Performance Emphasis (29 hours)

##### ► Required Emphasis Courses (13 hours):

DRMA 230	Acting II: Scene Studies	3
DRMA 241	Production Credit (3 quarters)	1-1-1
DRMA 289	Thesis Project	3
ENGL 211	Survey of Drama	4

##### ► Required Emphasis Electives (16 hours):

At least 10 hours from the following: 10

DRMA 231	Voice & Speech (2)
DRMA 232	Movement (2)
DRMA 241	Production Credit (1-3)
DRMA 339	Specialized Training (2-4)
ENGL 210	Bay Area Theater (3)
ENGL 212	Shakespeare in Performance (2-3)
ENGL 474	Shakespeare (4)

At least 6 hours from the following: 6

Additional coursework, selected from any of the 3 emphases

#### 3. Technical Emphasis (29 hours)

##### ► Required Emphasis Courses (13 hours):

MDIA 158	Intro to Television Production	2
MDIA 231	Sound Design I	2
MDIA 270	Cinematography I	3
MDIA 256	Editing	3
MDIA 289	Thesis Project	3

##### ► Required Emphasis Electives (16 hours):

At least 10 hours from the following: 10

ARTP 150	Black & White Photography (3)
ARTP 250	Digital Photo I (3)
MDIA 232	Sound Design II (2)
MDIA 258	Motion Graphics (3)
MDIA 271	Cinematography II (3)
MDIA 350	Directing (3)
MDIA 355	Marketing and Distribution (3)

At least 6 hours from the following: 6

Additional coursework, selected from any of the 3 emphases.

## Minor in English

A minimum of 30 hours (20 upper-division hours)

### ► Required Courses (12 hours):

ENGL 223	British Literature Survey	4
ENGL 224	Literary Theory	4
ENGL 355	American Colonial and Romantic Periods	4

### ► Required Electives (18 hours):

At least 18 hours from the following: 18

Include at least 16 upper division hours.

ENGL literature courses (356-57, 464-70, 474, 484-85)
ENGL genre courses (211, 311, 411)
ENGL theme courses (210, 212, 352)
ENGL linguistics courses (335)

## Minor in Writing

A minimum of 30 hours (20 upper-division hours)

### ► Required Courses (30 hours):

Select at least 30 hours, including at least 20 upper-division hours, from the emphasis elective options listed for the Writing Emphasis for the B.A.

## Drama

### LOWER-DIVISION COURSES:

#### **DRMA 229** **3 F, W** **Acting I: Fundamentals**

Development of stage presence through the study of improvisation, voice, movement, and acting. Introduction to points of view, characterization and interpretation of dramatic text. Includes public performance.

#### **DRMA 230** **3 S** **Acting II: Scene Studies**

Development of the actor's instrument and technique through the study of a variety of dramatic texts and the experience of a variety of acting techniques. Includes public performance. Prerequisite: DRMA 229.

#### **DRMA 231** **2 F** **Voice and Speech**

Development of the vocal techniques required for effective stage acting, including projection, articulation, accents, and pronunciation. Prerequisite: DRMA 229. Odd years.

#### **DRMA 232** **2 F** **Movement**

Development of a neutral physicality through various movement disciplines, including yoga and tai chi. Even years.

#### **DRMA 239** **3 F** **Techniques of Stage Production**

Hands-on, project-based experience with a variety of technical theater skills, including lighting, carpentry, makeup, and sound. Includes an introduction to the basic principles of scenography and to the techniques of stage management.

#### **DRMA 241** **1 W, S** **Production Credit**

Study and performance of a dramatic or technical role, under the supervision of an instructor. Enrollment only by permission of the instructor following an audition. Repeatable to a maximum of 6 credits.

#### **DRMA 289** **3 S** **Thesis Project**

Completion and presentation of an independent theater project. Enrollment in the course contingent upon prior approval of the project proposal. Qualifies for IP grading. Prerequisite: Permission of the instructor.

### UPPER-DIVISION COURSES:

#### **DRMA 339** **2 Arranged** **Specialized Training**

Prepares students in the theory and skills needed to participate in theater productions using a variety of dramatic styles and genres. Repeatable for credit under different subtitles such as

*Acting Shakespeare*  
*Improvisational Theater*  
*Physical Acting*

May not be available every year. See each year's class schedule for current offerings.

## English

For English placement information, see the section of this catalog entitled "General Education".

SERVICE COURSES:  
(Not applicable to a major or minor in this department)\*

#### **ENGL 099** **4 F** **Developmental Reading and Writing**

Emphasis on reading for significant details, reading for the main idea, scanning, critical reading, rate flexibility, and vocabulary development. Required of students who do not meet minimum standards of admission for ENGL 100.

#### **ENGL 100** **4 F, W** **Introduction to Reading and Composition**

For students who need to strengthen their command of basic reading and writing skills as shown by national test scores, secondary-school grades, and diagnostic testing. Emphasis on analytical reading, writing, and usage. Required of students who do not meet minimum standards for admission to ENGL 101. Corequisite: ENGL 133\*\*.

#### **ENGL 101-102** **4-4 F, W, S, Su** **College English**

Integration of composition and reading. ENGL 101 emphasizes critical reading

\* *Exception: ENGL 301 is applicable to the B.A. in English with an emphasis in English Education.*

\*\* *This corequisite is required only for those students who demonstrate need for extra support in syntax, mechanics, and basic editing (based on placement testing and proficiency examinations).*

of thematic units, examining expository essays, short stories, and poetry. Writing includes the personal and expository essay but culminates in the use of library source materials and standard documentation. Prerequisite: ENGL 100 with a minimum grade of C- or equivalent. Corequisite: ENGL 133\*\*.

ENGL 102 continues the critical reading of thematic units, including study of short stories, drama, and poetry. Use of library source materials is expanded and refined in the production of a research paper. Prerequisite: ENGL 101 with a minimum grade of C- or equivalent. Corequisite: ENGL 133\*\*.

**ENGL 133** **1 F, W, S**  
**Practicum in Writing and Syntax**

Individualized practice in syntax, mechanics, and basic editing. Required of students who demonstrate need for extra support in these areas based on placement testing and proficiency exams in ENGL 100, 101, and 102. Repeatable to a maximum of 3 credits.

**ENGL 301** **4 F, W, S, Su**  
**Great Books**

Thematically organized works generally recognized as distinguished explorations and expressions of significant issues. Literature is selected from several genres, countries and time periods. Readings, lectures, discussions, reports and papers. Repeatable for credit under different subtitles. Current subtitles include:

*Class and Gender*  
*Global Perspectives*  
*Literature and the Arts*  
*Literature and the Environment*  
*Salvation Stories*  
*Travel Narratives*  
*Ventures in Science*

Prerequisite: ENGL 102 or equivalent; enrollment limited to juniors and seniors.

LOWER-DIVISION COURSES:

**ENGL 134** **1 W**  
**Review of English Syntax**

The classification and application of English grammar. Covers the following sentence components: subjects, objects, verbs, adverbs, adjectives, prepositions, connectors, phrases, and clauses.

**ENGL 210** **3 W**  
**Bay Area Theater**

Exploration of dramatic literature and elements of production, acting and stage craft through the experience of attending a total of five live theater productions in the Bay area. Emphasis on appreciation of the art form, critical analysis, and the process of creating theater. 2 credits of lecture/discussion and 1 credit of viewing lab. Prerequisite: ENGL 102.

**ENGL 211** **4 F**  
**Survey of Drama**

A chronological survey of dramatic literature, from Greek theater to the 21st century. Provides historical context for the development of drama as a literary genre. Prerequisite: ENGL 102. Even years.

**ENGL 212** **2-3 Su**  
**Shakespeare in Performance**

An in-depth encounter, both in text and performance, with the four Shakespeare plays currently being presented at the Oregon Shakespeare Festival in Ashland, Oregon. Includes daily seminars, a backstage tour, and an interview with an actor. The three-credit option requires completion of an additional paper or research project. Qualifies for IP grading. Prerequisite: ENGL 102.

**ENGL 223** **4 F**  
**British Literature Survey**

British literature from the Anglo-Saxon period to the 21st century. Provides historical context for the development of major literary genres. Prerequisite: ENGL 102.

**ENGL 224** **4 W**  
**Literary Theory**

Major literary theories of the 20th century and their application to selected texts. Prerequisite: ENGL 102

**ENGL 291** **1 Arranged**  
**ESL Tutoring Practicum**

Methods in assisting English language learners one-on-one in listening, speaking, pronunciation, reading, vocabulary, grammar, writing and American customs. Prerequisite: ENGL 102.

UPPER-DIVISION COURSES:

*(ENGL 101-102 or equivalent is prerequisite to all upper-division ENGL courses.)*

**ENGL 307** **3 F**  
**Composition Theory and Pedagogy**

Contemporary theories of composition and the writing process: inventing, composing, revising, and editing. Also includes developing assignments, designing writing courses, and assessment of student writing. Even years.

**ENGL 311** **4 Arranged**  
**Development of the Novel**

A chronological study of the development of the novel as a literary genre, from the 17th century to the present.

## English

**ENGL 320** **2 S**  
**Cultural and Psychological Learner Differences**

Effects on language learning of customs, values, language aptitude, motivation, learner strategies, personality, and interaction between learner characteristics and types of instruction. Even years.

**ENGL 330** **4 Arranged**  
**Literature for Children**

Literature suitable for children from infancy through grade six. Emphasizes a broad spectrum of primary texts.

**ENGL 331** **4 W**  
**Literature for Adolescents**

Literature suitable for young adult students from grade seven through senior high school. Odd years.

**ENGL 335** **4 W**  
**Survey of Linguistics**

Linguistic concepts and methods: language development and second language acquisition; physiology of human speech; elementary phonology, morphology, syntax, and semantics; language change; dialectology; language and thought; ethical issues in language use.

**ENGL 336** **4 W**  
**Second Language Acquisition**

How English is learned as a second language. Examination of each aspect of language learning: speaking, pronunciation, listening, grammar, reading, writing, and vocabulary development. Includes attention to cultural and individual learning differences. Opportunities are provided to tutor students. Required in the emphasis in English Education and the emphasis in TESOL. Recommended prerequisite: ENGL 335. Odd years.

**ENGL 337** **4 S**  
**ELL Pedagogy**

Current methods of teaching English Language Learners. Concentrates on practical, innovative techniques that foster development of listening, speaking, pronunciation, grammar, reading, writing, and vocabulary in a variety of content areas. Even years.

**ENGL 345** **4 W**  
**Advanced Expository Writing**

An advanced study of written argumentation with emphasis on logic, critical thinking, rhetorical strategies, audience and style. Emphasis on the stylistic conventions of legal writing, with application to other disciplines as relevant. Odd years.

**ENGL 346** **4 Arranged**  
**Creative Writing**

Techniques of and practice in writing various literary forms. Repeatable for credit under different subtitles:

*Nonfiction*  
*Playwriting*  
*Poetry*  
*Short Story*

**ENGL 352** **4 Arranged**  
**Theme Courses**

Courses with an interdisciplinary focus. Repeatable for credit under different subtitles. May not be available every year. See each year's Class Schedule for current offerings.

*The period courses in American literature (ENGL 355-357) explore a variety of genres and authors representing each literary "period" listed. Though the emphasis is on the reading of primary works, students also apply a variety of interpretive approaches to the literature.*

**ENGL 355** **4 F**  
**American Colonial and Romantic Periods**

American authors from colonial times through the romantic era, emphasizing historical context.

**ENGL 356** **4 S**  
**American Realism and Naturalism**

Authors from American realists and naturalists. Even years.

**ENGL 357** **4 W**  
**American Modernism**

20th century American authors to 1950. Odd years.

**ENGL 389** **1 S**  
**Junior Seminar**

Techniques of literary research; choice of research topic for completion in ENGL 492 Senior Project; introduction to career planning and the graduate school application process, including preparation for professional exams (GRE).

**ENGL 411** **4 Arranged**  
**Poetics**

Study of poetics and prosody through the reading of a wide range of poetry and theorists; explores poetry as a literary genre through the study of a variety of poetic forms and literary periods.

- ENGL 434** **4 F**  
**Advanced English Syntax**  
 A review of traditional English grammar, with an introduction to transformational-generative techniques. Recommended prerequisites: ENGL 134, 335. Odd years.
- ENGL 443** **4 W**  
**ESL Curriculum Development and Classroom Management**  
 Assessing and adapting current English language teaching materials that meet specific learner needs. Includes techniques in successful English language classroom management. Recommended prerequisites: ENGL 336, 337. Even years.
- The period courses in English literature (ENGL 464-470) explore a variety of genres and authors representing each literary "period" listed. Though the emphasis is on the reading of primary works, students also apply a variety of interpretive approaches to the literature.*
- ENGL 464** **4 F**  
**English Medieval Literature**  
 Texts from British Medieval literature. Even years.
- ENGL 465** **4 F**  
**English Renaissance Literature**  
 Texts from British Renaissance literature. Odd years.
- ENGL 466** **4 W**  
**The Enlightenment in Britain**  
 British writers from the Restoration and Neoclassic tradition. Odd years.
- ENGL 467** **4 S**  
**The Romantic Age in Britain**  
 British writers of the first third of the 19th century. Odd years.
- ENGL 468** **4 F**  
**The Victorian Age in Britain**  
 British writers from 1830 to 1880. Even years.
- ENGL 469** **4 W**  
**The Modern Age in Britain**  
 British writers from 1880 to 1950 with focus on British Modernists. Even years.
- ENGL 470** **4 S**  
**Contemporary Literature in English**  
 Literature in English since 1950. Even years.
- ENGL 474** **4 W**  
**Shakespeare**  
 A selection of Shakespeare's histories, romances, tragedies, comedies, and poetry in the context of his times. Even years.
- ENGL 484** **4 Arranged**  
**Literature of the Bible**  
 A study of the literary nature of the Bible.
- ENGL 485** **4 S**  
**The Classical World**  
 Ancient Greece and Rome studied through primary texts, including Greek and Roman epics, dramas, histories, and philosophical works. Even years.
- ENGL 490** **1 F**  
**Senior Seminar**  
 Guides students in their preparation for applying to graduate school or entering the job market, including preparation for professional exams (GRE, CSET), job interviews, professional statements and cover letters, and writing samples; continuation of work on the senior project begun in ENGL 389.
- ENGL 491** **2 Arranged**  
**ESL Teaching Practicum**  
 Guided exposure to the ESL classroom through observation and supervised teaching. Prerequisites: ENGL 336 and 337.
- ENGL 492** **1 W**  
**Senior Project**  
 Completion and presentation of the independent project begun in ENGL 389: Junior Seminar. Requires a literary paper of approximately 20 pages, or a creative project of comparable scope. Qualifies for IP grading.
- ENGL 494** **3 F, W, S**  
**Writing Internship**  
 Supervised experience in writing on the job. A student may apply for an internship for one quarter in a department-approved workplace (examples: a college public relations office, a hospital department of communications or development, or other nonprofit organization or public relations firm). From this supervised experience in writing the student presents a portfolio containing a variety of finished documents. Qualifies for IP grading. Graded S/F.
- ENGL 495** **1-3 Arranged**  
**Independent Study**  
 Offers the advanced student opportunity to pursue investigation in a field of special interest under the direction of department faculty. Repeatable to a maximum of 3 credits.

## English

### English as a Second Language

SERVICE COURSE:

*(Not applicable to a major or minor in this department)*

**ENSL 100**                      **1-4 Arranged**  
**English for Special Purposes**

Practical language application for advanced ESL and other international students. Customized in response to student needs and interests in the following areas: professional pronunciation, advanced ESL composition, academic skills, American culture and institutions, and understanding the Christian culture. Repeatable for credit.





**Faculty**

Michael Hellie, chair; Charles Evans, Elaine Neudeck, Robert Paulson

Departmental Office: 60 Pacific Auditorium; 965-6344

**Degrees and Programs**

Physical Education with Teacher Education Emphasis, B.S. ....	113
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The EXERCISE SCIENCE, HEALTH, & NUTRITION (ESHN) DEPARTMENT serves the Pacific Union College community by providing opportunities for career development in sports professions, for instruction, and for participation.

The department has the following objectives:

- to give thorough instruction in the requirements for participation and leadership in sports activities,
- to develop a knowledge and understanding of health and safety concepts,
- to offer a wide variety of suitable activities, in and out of the classroom, in an environment that supports Christian values,
- to encourage each individual to achieve a high level of total fitness and neuromuscular coordination supporting a wholesome lifestyle, and
- to encourage daily vigorous exercise for everyone in all stages of life.

The Physical Education degree with emphasis in Teacher Education is designed for students wishing to become sports teachers. The Exercise Science degree is designed for the student who either seeks to enter medical school or advance into athletic training. This program recommends the required cognate courses for a pre-professional program and has the required courses for entering a sport medicine graduate program in athletic training.

**Major in Physical Education with Teacher Education Emphasis, B.S.**

A minimum of 84 hours (44 upper-division hours)

► *Required Core Courses (68 hours):*

ESAC 368	Water Safety Instructor	2
ESAC 370	Lifeguard Training	2
ESTH 166	Historical Foundations of Physical Education	2
ESTH 170	Care and Prevention of Athletic Injuries	2
ESTH 181	Basic Movement	2
ESTH 183	Theory and Technique of Track and Field	2
ESTH 260	Theory and Technique of Football	2
ESTH 261	Theory and Technique of Volleyball	2
ESTH 262	Theory and Technique of Basketball	2
ESTH 263	Theory and Technique of Softball	2
ESTH 264	Theory and Technique of Soccer	2
ESTH 271+2+3	Theory and Technique of Officiating	2+2+1
ESTH 287	Theory and Technique of Individual Sports	2
ESTH 365	Outdoor Experience	3
ESTH 371	Kinesiology	4
ESTH 372	Physiology of Exercise	4
ESTH 373	Corrective Physical Education	3
ESTH 374	Motor Learning	4
ESTH 381	Theory and Technique of Racquet Sports	2
ESTH 384	Theory and Technique of Rhythmic Activities	2
ESTH 461	Coaching I	2
ESTH 470	Management of Physical Education Programs	3
ESTH 471	Evaluation in Physical Education	3
ESTH 476	Physical Education for Children	3
ESTH 483	Theory and Technique of Weight Training and Developmental Physical Education	2
ESTH 490	Ethics in Physical Education	2
HLED 166	Health Education	2

► *Required Cognate Courses (16 hours)*

BIOL 101	Human Anatomy	5
BIOL 102	Human Physiology	5

## Exercise Science, Health and Nutrition

COMM 330	Intercultural Communication	3
FDNT 235	Nutrition	3

Students majoring in physical education are expected to choose a minor in consultation with their major advisor.

### Major in Exercise Science, B.S.

*A minimum of 63 hours (32 upper-division hours):*

#### ► Required Core Courses (55 hours):

BIOL 101	Human Anatomy	5
BIOL 102	Human Physiology	5
ESAC 370	Lifeguard Training	2
ESTH 166	Historical Foundations	2
ESTH 170	Care and Prevention of Athletic Injuries	2
ESTH 181	Basic Movements	2
ESTH 265	Theory and Technique of Aquatic Fitness	2
ESTH 287	Theory and Technique of Individual Sports	2
ESTH 371	Kinesiology	4
ESTH 372	Physiology of Exercise	4
ESTH 373	Corrective Physical Education	3
ESTH 374	Motor Learning	4
ESTH 378	Fitness Assessment and Exercise Prescription	3
ESTH 381	Theory and Technique of Racquet Sports	2
ESTH 471	Evaluation in Physical Education	3
ESTH 483	Theory and Technique of Weight Training	2
ESTH 490	Ethics in Physical Education	2
ESTH 492	Practicum in Sports Science	3
FDNT 235	Nutrition	3
HLED 166	Health Education	2

#### ► Required Core Electives (6 hours):

*At least 6 hours from the following:*

*(To be chosen in consultation with the major advisor)*

ESTH 183	Theory and Technique of Track and Field (2)	6
ESTH 260	Theory and Technique of Football (2)	
ESTH 261	Theory and Technique of Volleyball (2)	
ESTH 262	Theory and Technique of Basketball (2)	
ESTH 263	Theory and Technique of Softball (2)	
ESTH 264	Theory and Technique of Soccer (2)	

#### Recommended Cognate Courses:

*(For students in a pre-professional program)*

BIOL 111+112+113	Biological Foundations (5+5+5)
BIOL 320	Cellular and Molecular Biology (4)
CHEM 111+112+113	General Chemistry (5+5+5)
CHEM 371+372+373	Organic Chemistry (4+4+3)
CHEM 481+482	Biochemistry I,II (4+4)
PHYS 111+112+113	General Physics (4+4+4)

The B.S. degree curriculum (including all recommended cognates) meets or exceeds all undergraduate science requirements for pre-medical and pre-dental students applying to Loma Linda University and many other schools.

### Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in physical education should take the B.S. degree in Physical Education, Teacher Education Emphasis. Students will need to pass the physical education portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the Exercise Science, Health, & Nutrition Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the section entitled "Education" in this catalog.

### Minor in Physical Education

*A minimum of 30 hours (12 upper-division hours)*

#### ► Required Courses (10 hours):

ESTH 166	Historical Foundations of Physical Education	2
ESTH 170	Care and Prevention of Athletic Injuries	2
ESTH 470	Management of Physical Education Programs	3
ESTH 471	Evaluation in Physical Education	3

#### ► Required Electives (20 hours):

*(To be chosen in consultation with the major advisor)*

*At least 10 hours from the following:* 10

ESTH	Theory and Technique courses
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*At least 10 hours from the following:* 10

ESTH	Any ESTH courses
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**Physical Education Activity**

LOWER-DIVISION COURSE:

**ESAC 100 1 Arranged Adaptive Physical Education**

Requires physician's certification of need. Repeatable for credit.

**Aerobics**

*All aerobics courses are repeatable for credit.*

LOWER-DIVISION COURSES:

**ESAC 101A 1 F, W, S Jogging**

**ESAC 103A 1 F, W, S Physical Fitness**

**ESAC 105A 1 W, S Fitness for Women**

**ESAC 107A 1 F, S Swim and Stay Fit**

Proficiency in swimming strokes required.

**ESAC 109A 1 S Hydro-Aerobics**

UPPER-DIVISION COURSES:

**ESAC 304A 1 S Cycling**

Road bike required. (A limited number of bikes are available for student use-please make inquiries to the professor.)

**ESAC 338A 1 F Ultimate Frisbee**

**Aquatics**

*All aquatics courses are repeatable for credit.*

LOWER-DIVISION COURSE:

**ESAC 158 1 F Elementary Swimming**

Beginning-level swimmers only. Even years.

UPPER-DIVISION COURSES:

**ESAC 368 2 S Water Safety Instructor**

Recommended prerequisite: Red Cross Level 5. Even years.

**ESAC 370 2 S Lifeguard Training**

Recommended prerequisite: Red Cross Level 5.

**Individual and Dual Sports**

*All individual and dual sports courses are repeatable for credit.*

LOWER-DIVISION COURSES:

**ESAC 133 1 F Mountain Biking**

**ESAC 171 1 W Pickleball**

**ESAC 174 1 W Elementary Badminton**

**ESAC 176 1 F, W, S Elementary Weight Training**

**ESAC 178 1 S Canoeing**

**ESAC 180 1 F Elementary Golf**

Additional fees apply. For current rates, inquire at the ESHN Department.

**ESAC 192 1 W Elementary Skiing/Snowboarding**

Additional fees apply. For current rates, inquire at the ESHN Department.

**ESAC 194 1 F, S Elementary Tennis**

UPPER-DIVISION COURSES:

**ESAC 374 1 W Intermediate Badminton**

**ESAC 376 1 W Intermediate Weight Training**

Odd years.

**ESAC 380 1 S Intermediate Golf**

Additional fees apply. For current rates, inquire at the ESHN Department.

**ESAC 392 1 W Intermediate Skiing/Snowboarding**

Additional fees apply. For current rates, inquire at the ESHN Department.

**ESAC 394 1 S Intermediate Tennis**

**Team Sports**

*All team sports courses are repeatable for credit.*

LOWER-DIVISION COURSES:

**ESAC 120 1 W Elementary Basketball**

**ESAC 123 1 S Baseball- Men**

## Exercise Science, Health and Nutrition

**ESAC 124** 1 F  
**Flag Football**

**ESAC 128** 1 F, S  
**Soccer**

Fall quarter enrollment limited to members of the men's varsity soccer team. Spring quarter enrollment is open to other students.

**ESAC 130** 1 S  
**Softball**

**ESAC 132** 1 F, W  
**Elementary Volleyball**

### UPPER-DIVISION COURSES:

**ESAC 333V** 1 F  
**Volleyball- Varsity Women**

Enrollment limited to members of the women's varsity volleyball team.

**ESAC 334V** 1 W  
**Volleyball- Varsity Men**

Enrollment limited to members of the men's varsity volleyball team.

**ESAC 335V** 1 W  
**Basketball- Varsity Women**

Enrollment limited to members of the women's varsity basketball team.

**ESAC 336V** 1 W  
**Basketball- Varsity Men**

Enrollment limited to members of the men's varsity basketball team.

## Professional and Theory

### LOWER-DIVISION COURSES:

**ESTH 166** 2 W  
**Historical Foundations of Physical Education**

History of physical education, health and recreation. Effects of social expectations and world events on views of physical education and sports. An introduction to careers in these and related fields.

**ESTH 170** 2 W  
**Care and Prevention of Athletic Injuries**

Care and prevention of injuries associated with coaching and teaching sport and game activities in a school setting. Topics include sprains, bleeding, fractures, exposure to heat and cold, seizures, heart attacks, accidental exposure to poisons and chemicals, and other injuries requiring immediate medical attention.

**ESTH 181** 2 F  
**Basic Movement**

Fundamentals of body movement, posture, conditioning exercises, self-testing activities; selection, evaluation, and organization of social recreational activities. Odd years.

**ESTH 183** 2 S  
**Theory and Technique of Track and Field**

Practice sessions and drills for developing fundamental skills and special abilities; study of rules and officiating techniques; consideration of practice scheduling and strategy. Odd years.

**ESTH 260** 2 F  
**Theory and Technique of Football**

Practice in and theory of flag football. Development of fundamental skills of the game; analysis of skills, techniques, team strategy, and rules. Even years.

**ESTH 261** 2 F  
**Theory and Technique of Volleyball**

Practice in and theory of volleyball. Development of fundamental skills of the game; analysis of skills, techniques, team strategy, and rules. Even years.

**ESTH 262** 2 W  
**Theory and Technique of Basketball**

Analysis and practice of skills and team play; interpretation of rules; strategy and techniques of teaching. Even years.

**ESTH 263** 2 S  
**Theory and Technique of Softball**

Practice in and theory of softball. Development of fundamental skills of the game; analysis of skills, techniques, team strategy, rules and officiating procedures. Even years.

**ESTH 264** 2 S  
**Theory and Technique of Soccer**

Practice and theory of soccer. Development of fundamental skills of the game; analysis of skills, techniques, team strategy and rules. Even years.

**ESTH 265** 2 F  
**Theory and Technique of Aquatic Fitness**

Emphasis on the theory of how to develop appropriate workout programs in the area of aquatics. Students learn choreography of water exercise programs in aquatic aerobics, swimming fitness, and adaptive water exercise. Students participate in individual fitness performance and develop programs for specific population demographics, specific ages, and those with special needs. Swimming skills required at and above the elementary level. Odd years.

**ESTH 271+272+273 2+2+1 F+W+S**  
**Theory and Practice of Officiating**

Theory of and practice in officiating at team sports, interpretation of rules, officiating techniques, examinations, and ratings. Consists of a combination of lectures and practice. Prerequisite: Previous experience in playing football, volleyball, basketball, and softball.

**ESTH 287 2 S**  
**Theory and Technique of Individual Sports**

Development of fundamental skills and strategies in various individual activities such as handball, golf, racquetball, and archery. Emphasis on teaching techniques, officiating, rules, and organization of materials for school programs. Additional fees apply. For current rates, inquire at the ESHN Department. Odd years.

UPPER-DIVISION COURSES:

**ESTH 365 3 S**  
**Outdoor Experience**

Theory and practice in camping, hiking, backpacking, and canoeing techniques. Ecological considerations, equipment and food selection, outdoor cooking, and orienteering. One credit may apply to the Fitness general education requirement. Additional fees apply. For current rates, inquire at the ESHN Department.

**ESTH 371 4 F**  
**Kinesiology**

A study of joints and muscular structure and their relation to physical exercise. Three lectures and one laboratory per week. Prerequisites: BIOL 101, 102. Odd years.

**ESTH 372 4 F**  
**Physiology of Exercise**

Physiological effects of muscular exercise, physical conditioning, and training. Significance of these effects for health and for performance in activity programs. Three lectures and one laboratory per week. Prerequisites: BIOL 101, 102. Even years.

**ESTH 373 3 S**  
**Corrective Physical Education**

Common deviations of posture and feet; functional disturbances and crippling conditions found in school children. Survey of source material needed to plan and conduct individual, developmental, and special courses in physical education in schools. Prerequisite: ESTH 476. Odd years.

**ESTH 374 4 W**  
**Motor Learning**

Physiological and psychological instructional considerations for learning, skill acquisition, and performance as applied to motor skills. Three lectures and one laboratory per week. Prerequisites: PSYC 121, BIOL 101, 102. Even years.

**ESTH 378 3 W**  
**Fitness Assessment and Exercise Prescription**

Introduction to the theoretical and practical aspects of exercise assessment, exercise interpretations, and exercise prescription. Covers principles of exercise prescription with hands-on experiences using various clinical and field methods to evaluate cardiorespiratory fitness, muscular strength and endurance, flexibility and body composition. Prerequisite: ESTH 372. Odd years.

**ESTH 381 2 F**  
**Theory and Technique of Racquet Sports**

Analysis of and practice in strokes and tactics; rules, history and skill progression for various levels of instruction. Odd years.

**ESTH 384 2 W**  
**Theory and Technique of Rhythmic Activities**

Development of personal and teaching skills for theoretical and practical application of rhythms: the leadership of aerobic exercise, dramatic and creative play, folk rounds, and other activities. Development of skills for personal combative activities and techniques for teaching such skills. Odd years.

**ESTH 461 2 W**  
**Coaching I**

Designed to develop skills for coaching athletic teams. Development of philosophies in harmony with Seventh-day Adventist principles concerning athletic events. Skills in team building and strategies. Practical experience included. Prerequisites: At least 3 of the following courses- ESTH 260, 261, 262, 263, 264. Even years.

**ESTH 470 3 F**  
**Management of Physical Education Programs**

Relationship of physical education to modern education theory. The organization of physical education activities, organization and classification of pupils; emphasis on the arrangement and construction of equipment and planning of school programs suitable to denominational schools. Odd years.

# Exercise Science, Health and Nutrition

## **ESTH 471** **3 W** **Evaluation in Physical Education**

Scientific testing in physical education: analysis and study of tests, diagnosis of physical efficiency, and physiological reactions to exercise. Evaluation of programs and student achievement through measurement technique. Odd years.

## **ESTH 476** **3 F** **Physical Education for Children**

Activity interests of children and appropriate materials for different age levels; selection of materials and methods of presentation. Consists of a combination of lectures and practice. Applies as one course for the Fitness general education requirement.

## **ESTH 483** **2 S** **Theory and Technique of Weight Training and Developmental Physical Education**

Theory and technique of weight training, analysis of exercises for the atypical student and correction of postural deviations. Open to department majors and minors. Prerequisite: ESTH 371. Even years.

## **ESTH 490** **2 W** **Ethics in Physical Education**

The power of religion in developing Christian professionals in health, physical education and recreation. Concepts of the way God, man and Spirit relate to one another; development of Christlike leadership qualities in both instructors and students. Even years.

## **ESTH 492** **3 S** **Practicum in Sports Science**

Combines classroom work with practical hands-on experience to prepare students to continue their education in the fields of athletic training, personal training, sports physical therapy, or sports medicine. Skills developed in the program are taken from the following areas: anatomy and physiology, athletic injury care, prevention and rehabilitation, physical therapy, fitness programs for individuals and groups, health and wellness, nutrition, and strength training. Should be taken during the student's last year at Pacific Union College before graduation.

## **ESTH 495** **1-3 Arranged** **Independent Study**

Open by permission of the department chair to advanced students with adequate background and experience. Repeatable to a maximum of 3 credits.

## **Health Education**

### LOWER-DIVISION COURSES:

## **HLED 162** **2 W, S** **Fitness for Life**

Introduces the philosophy of health, aimed at lasting nutritional and physical conditioning that promotes a high level of well-being. Emphasis on the prevention of heart disease, obesity, and stress. Laboratory evaluation in body composition, blood analysis, stress testing, and the treadmill.

## **HLED 166** **2 F, W** **Health Education**

Encourages the development of self-awareness and promotes "wellness" as a life-long personal investment. Advocates protection and effective use of human and ecological resources and acquiring skills for individual responsibility. Emphasis on Seventh-day Adventist health principles. Treats substance abuse and nutrition as required for SDA and California teaching credentials.

## **HLED 169** **2 Arranged** **Current Health Concerns**

Explores the background and cause of common health problems of the adult as well as prevention and treatment. Designed to promote physical vitality and a sense of well-being.

## **HLED 495** **1-3 Arranged** **Independent Study**

Open by permission of the department chair to advanced students with adequate background and experience. Repeatable to a maximum of 3 credits.



## Faculty

Paul McGraw, chair; Hilary Dickerson, Ileana Douglas,  
Howard Munson

Departmental Office: 209 Irwin Hall; 965-6404

## Degrees and Programs

History, B.A.....	119
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Students in the HISTORY & SOCIAL STUDIES DEPARTMENT explore the civilizations of Africa, Asia, Europe, North America, and South America. Using original and secondary written sources, films, and other documents, and through field trips and summer study programs outside the United States, departmental faculty work with their students in the study of geography, history, and political science.

Scholarship is encouraged and recognized by membership in Phi Alpha Theta, the history honors society, and through debates, lectures, and student and faculty presentations sponsored by Pacific Union College's Alpha Zeta Theta Chapter.

Students have access to the Utt Memorial Library in the department's seminar room and the adjacent Honors Program Common Room. Faculty-student suppers and discussion groups complete the collegial and friendly atmosphere, the hallmark of the department.

Prospective teachers should take a Social Studies major and consult with department teachers about non-departmental courses. Following completion of the Social Studies major each student seeking a California teaching certificate must take the California Subject Examination for Teachers (CSET).

## Major in History, B.A.

A minimum of 55 hours (31 upper-division hours):

### > Required Core Courses (30 hours):

HIST 101+102	History of World Civilizations	4+4
HIST 134+135	History of the United States	4+4
HIST 180	History Methods I (3 quarters)	1+1+1
HIST 280	History Methods II	2
HIST 380	History Methods III	2
HIST 450	History Study Tour	4
HIST 480	Senior Thesis (3 quarters)	1+1+1

### > Emphases (choose one):

#### 1. American History Emphasis (25 hours)

HIST 411	Seminar in the History of the Americas	4
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At least one of the following courses: 3

HIST 210	Introduction to African History (3)
HIST 220	Introduction to Ancient History (3)
HIST 230	Introduction to Asian History (3)
HIST 240	Introduction to Latin American History (3)

At least one of the following courses: 3-4

HIST 328	Medieval Europe (4)
HIST 329	Renaissance Europe (4)
HIST 331	Early Modern Europe (4)
HIST 332	Europe Since Napoleon (4)
HIST 351	History of Culture (3)*
HIST 361	The World Since 1945 (4)

At least three of the following courses: 11-12

HIST 351	History of Culture (3)**
HIST 355	Colonial America (4)
HIST 356	The New Nation: 1763-1820 (4)
HIST 357	Civil War and Reconstruction (4)
HIST 358	Recent America (4)

\* Must be a European topic.

\*\* Must be an American topic.

## History & Social Studies

At least one of the following courses: 4

HIST 410 Seminar in African History (4)

HIST 412 Seminar in Asian History (4)

HIST 413 Seminar in European History (4)

### 2. European History Emphasis (25 hours)

HIST 413 Seminar in European History 4

At least one of the following courses: 3

HIST 210 Introduction to African History (3)

HIST 220 Introduction to Ancient History (3)

HIST 230 Introduction to Asian History (3)

HIST 240 Introduction to Latin American History (3)

At least three of the following courses: 11-12

HIST 328 Medieval Europe (4)

HIST 329 Renaissance Europe (4)

HIST 331 Early Modern Europe (4)

HIST 332 Europe Since Napoleon (4)

HIST 351 History of Culture (3)\*

HIST 361 The World Since 1945 (4)

At least one of the following courses: 3-4

HIST 351 History of Culture (3)\*\*

HIST 355 Colonial America (4)

HIST 356 The New Nation 1763-1820 (4)

HIST 357 Civil War and Reconstruction (4)

HIST 358 Recent America (4)

At least one of the following courses: 4

HIST 410 Seminar in African History (4)

HIST 411 Seminar in the History of the Americas (4)

HIST 412 Seminar in Asian History (4)

### Major in History, Political Studies and Ethics, B.S.

A minimum of 64 hours (37 upper-division hours):

#### > Required Core Courses (64 hours):

ENGL 345 Advanced Expository Writing 4

HIST 134+135 History of the United States 4+4

PHIL 101 Introduction to Philosophy 4

PLSC 124 Introduction to American Government 3

PLSC 274 Introduction to Political Thought 3

PLSC 494 Internship 3

RELT 216 Intro to Christian Ethics 3

\* Must be a European topic.

\*\* Must be an American topic.

At least two of the following courses: 8

HIST 331 Early Modern Europe (4)

HIST 332 Europe Since Napoleon (4)

HIST 356 New Nation: 1763-1820 (4)

HIST 358 Recent America (4)

HIST 361 The World Since 1945 (4)

At least three of the following courses: 9-11

PLSC 328 Critical World Issues (3)

PLSC 329 Environmental Policy (3)

PLSC 330 Modern Comparative Government (3)

PLSC 340 History of Political Thought (4)

PLSC 485 Foreign Relations of the U.S. (4)

At least two of the following courses: 6

JOUR 434 Media Law and Ethics (3)

RELB 315 Biblical Ethics (3)

RELT 355 Christian Ethics in Society (3)

RELT 440 Christian Bioethics (3)

At least two of the following courses: 7-8

PSYC 121 General Psychology (4)

SOCI 121 Intro to Sociology (4)

SOCI 232 American Social Problems (4)

SOCI 355 "Racial" and Ethnic Relations (3)

At least two of the following courses: 6

COMM 328 Small Group Communication (3)

COMM 329 Organizational Communication (3)

COMM 426 Argumentation (3)

COMM 427 Persuasive Communication (3)

#### Recommended Cognates

BUAD 223 Personal Law (2)

BUAD 325 Business Law I (3)

BUAD 326 Business Law II (3)

ECON 261 Macroeconomics (4)

ECON 265 Microeconomics (4)

STAT 222 Introduction to Statistics (4)

### Major in History, Political Studies and Ethics, B.A.

A minimum of 51 hours (31 upper-division hours):

Major requirements are the same as those for the B.S. degree with the following exceptions:

- The PSYC/SOCI courses are recommended, not required.
- The COMM courses are recommended, not required.



**Major in Social Studies, B.S.**

*A minimum of 70 hours (30 upper-division hours):*

► **Required Core Courses (30 hours):**

HIST 101+102	History of World Civilizations	4+4
HIST 134+135	History of the United States	4+4
HIST 180	History Methods I (3 quarters)	1+1+1
HIST 280	History Methods II	2
HIST 395	Social Studies Seminar	2
HIST 450	History Study Tour	4
HIST 480	Senior Thesis (3 quarters)	1+1+1

► **Required Core Electives (40 hours):**

*Complete at least 40 hours of electives, including at least 21 upper-division hours, distributed as described:*

*At least 22 hours from the following* 22  
Additional HIST courses

*Any three of the following options:* 18

- At least 6 hours from ECON courses
- At least 6 hours from GEOG courses
- At least 6 hours from PLSC courses
- At least 6 hours from SOCI courses

*Electives for those interested in social work, teaching, medicine, or law should be chosen in consultation with the major advisor.*

**Teaching Credential**

Students desiring to enter a program of studies leading to a California teaching credential in social science should take the B.S. degree in Social Studies. Students will need to pass the social science portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the History & Social Studies Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the section entitled "Education" in this catalog.

**Minor in History**

*A minimum of 31 hours (12 upper-division hours)*

► **Required Courses (19 hours):**

HIST 101+102	History of World Civilizations	4+4
HIST 134+135	History of the United States	4+4
HIST 180	History Methods I	1+1+1
HIST 280	History Methods II	2

► **Required Electives (9 hours):**

*At least 9 hours from the following:* 12  
Additional upper-division HIST courses

**Economics**

*(See Business Administration and Economics for course descriptions.)*

**Geography**

LOWER-DIVISION COURSES:

**GEOG 210** **3 W**

**World Regional Geography**

Regions of the world and their cultural, historical, climatic, and economic similarities or diversities. Emphasis on current developments. Even years.

**GEOG 220**

**Geography of the Americas**

Climate, natural resources, political, and economic geography of North and South America. Odd years.

**3 W**

**HIST 134+135**

**4+4 F, W, S**

**History of the United States**

The United States from colonial beginnings to the present time. The central theme is the growth of American democracy with its implications for government and society, racial and religious minorities and the emergence of the nation as a world power. Prerequisite: ENGL 100.

**History**

LOWER-DIVISION COURSES:

**HIST 101+102**

**4+4 F, W, S**

**History of World Civilizations**

Major characteristics and developments in world civilizations based on primary and secondary texts. Also integral: discussion of history's place in the liberal arts and of the problems of the historical method. Prerequisite: ENGL 100.

**HIST 180**

**1 F, W, S**

**History Methods I**

An introduction to the major, the department, its faculty and to the basic writing skills required for the survey courses in World Civilizations and U.S. History. Majors should register for HIST 180 each quarter of the freshman year. Repeatable to a maximum of 3 credits.

## History & Social Studies

### **HIST 210** **3 S**

#### **Introduction to African History**

Sub-Saharan Africa from the earliest societies to the modern era. Topics include the development of ancient African kingdoms and their customs, the spread and influence of Islam, the arrival of Europeans, colonialism and decolonization. Odd years.

### **HIST 220** **3 F**

#### **Introduction to Ancient History**

Ancient civilizations from their emergence to their collapse, with special attention to the development of government, philosophy and the arts. Even years.

### **HIST 230** **3 W**

#### **Introduction to Asian History**

Asian civilization from earliest times to the present. Primarily focuses on Japan and China with special attention to social, economic, political and intellectual developments. Odd years.

### **HIST 240** **3 W**

#### **Introduction to Latin American History**

Latin America from the earliest civilizations to the present. Emphasis on cultural, political, and economic trends. Even years.

### **HIST 280** **2 S**

#### **History Methods II**

Builds on the writing skills established during the freshman seminar series and introduces majors to the dominant historiographical schools in the field of history. Requires a major research paper based on primary and secondary sources. Prerequisite: HIST 180.

### UPPER-DIVISION COURSES:

### **HIST 320** **3 F**

#### **Christian History: To 1054**

(See also RELH 320.)

Development of the Christian Church from its pre-Christian origins to 1054, the year of the East-West schism. Emphasis on those social, political, intellectual, and religious pressures that contributed to the formation of Christian doctrines and the establishment of hierarchy and institutions. Detailed examination of significant work by major Christian figures. Even years.

### **HIST 321** **3 W**

#### **Christian History: 1054 to 1600**

(See also RELH 321.)

Developments in the Christian Church from the high Middle Ages to the Protestant Reformation. Emphasis on the major historical, theological and cultural forces that influenced the medieval church and gave rise to the Protestant Reformation. Examination of the work and writings of various Protestant reformers. Odd years.

### **HIST 322** **3 S**

#### **Christian History: 1600 to the Present**

(See also RELH 322.)

Development of the Christian Church from the aftermath of the Protestant Reformation to the present day. Emphasis on the effects on the Church of major cultural movements, such as the Enlightenment, colonization and imperialism, modern warfare, and ecumenism. Detailed examination of significant works by Christians in response to "the modern world."

### **HIST 328** **4 F**

#### **Medieval Europe**

The vital period from 300 to 1400, which saw the creation of Europe. The priorities and characteristics of the civilization which facilitated the emergence of a multifaceted medieval society that serves as the ancestor of the modern world. Prerequisites: HIST 101, 102, 280. Odd years.

### **HIST 329** **4 W**

#### **Renaissance Europe**

Europe from the 14th to 17th centuries, when experiments in art, literature, political theories and systems, and religion were prominent features of society. Prerequisites: HIST 101, 102, 280. Odd years.

### **HIST 331** **4 F**

#### **Early Modern Europe**

Europe from 1648 to 1815, with special attention to the effect of the Age of Reason on the modern mind, the growth of the bureaucratic state, and the impact of the era of revolution. Prerequisites: HIST 101, 102, 280. Even years.

### **HIST 332** **4 W**

#### **Europe Since Napoleon**

The political, social and religious trends during the 19th and 20th centuries. Prerequisites: HIST 101, 102, 280. Even years.

### **HIST 337** **3 S**

#### **History of California**

The geographic, economic, social, and historical factors which have contributed to the development of California. Odd years.

**HIST 351** **3 W**

**History of Culture**

Thematic study of culture as it influences the world today. Emergence of culture through literature, sports, movies, radio, television, media, religion, and food. Appropriate for both majors and non-majors. Repeatable for credit under different subtitles.

**HIST 355** **4 W**

**Colonial America**

The discovery, settlement, and growth of the European colonies in America, emphasizing those religious, political, and economic developments, particularly in the English colonies, that prepared the way for independence. Prerequisites: HIST 134, 135, 280. Even years.

**HIST 356** **4 F**

**The New Nation: 1763-1820**

The formative period of American national identity between 1763 and 1820. Includes intensive study of the creation and development of the U.S. Constitution. Prerequisites: HIST 134, 135, 280. Odd years.

**HIST 357** **4 F**

**Civil War and Reconstruction**

Slavery, the nature of the Union and the immediate and permanent effects of the Reconstruction on America. Prerequisites: HIST 134, 135, 280. Even years.

**HIST 358** **4 W**

**Recent America**

The rapid changes in American society, economy, and politics since World War II. Prerequisites: HIST 134, 135, 280. Odd years.

**HIST 360** **4 W, S, Su**

**Adventist Heritage**

(See also RELH 360)

An interdisciplinary exploration of theological and historical issues important to an understanding of the Advent Movement and the ministry of Ellen G. White. Meets the requirement in Prophetic Guidance and Denominational History for SDA teaching credentials.

**HIST 361** **4 S**

**The World Since 1945**

Major issues and developments in World History from since the end of World War II. Includes nationalism, decolonization and independence movements, the Cold War, globalization, international politics and economics, and conflicts around the world. Prerequisites: HIST 102, 135, 280. Odd years.

**HIST 380** **2 S**

**History Methods III**

Refines writing and analytical skills developed in freshman and sophomore seminars. Introduces majors to the professionalization of history and history as a career. Includes conference paper presentations, admission to and preparation for graduate school, and guest lecturers from the field of history. Prerequisites: HIST 180, 280.

**HIST 395** **2 S**

**Social Studies Seminar**

Focuses on the preparation of social studies majors for careers in education, law and history. Incorporates preparation for the California Subject Examination for Teachers in History.

**HIST 410** **4 S**

**Seminar in African History**

Themes in African history. Requires a major research paper. Repeatable for credit under different topics. Prerequisites: HIST 210, 280. Even years.

**HIST 411** **4 F**

**Seminar in the History of the Americas**

Themes in U.S. and Latin American history. Requires a major research paper. Repeatable for credit under different topics. Prerequisites: HIST 134, 135, 240, 280. Odd years.

**HIST 412** **4 W**

**Seminar in Asian History**

Themes in Asian history. Requires a major research paper. Repeatable for credit under different topics. Prerequisites: HIST 230, 280. Even years.

**HIST 413** **4 F**

**Seminar in European History**

Themes in European history. Requires a major research paper. Repeatable for credit under different topics. Prerequisites: HIST 101, 102, 280. Odd years.

**HIST 450** **4 Su**

**History Study Tour**

Summer travel opportunity for majors. Topics vary. Repeatable for credit under different subtitles. Prerequisites: HIST 101, 102, 134, 135 and appropriate introductory course. Even summers.

## History & Social Studies

### **HIST 480** **1 F, W, S** **Senior Thesis**

First quarter serves as a preparation course for writing the senior thesis and requires the production of a thesis proposal. Second quarter incorporates the writing of the senior thesis. Third quarter consists of a formal thesis presentation to faculty and peers. Repeatable to a maximum of 3 credits. Prerequisite: HIST 380. Eligible for IP grading.

### **HIST 495** **1-3 Arranged** **Independent Study**

Individual research; open by permission of the department chair to advanced students with an adequate background. Repeatable to a maximum of 3 credits.

## Political Science

### LOWER-DIVISION COURSES:

### **PLSC 124** **3 F** **Introduction to American Government**

The development and functioning of the American machinery of government and a study of the political processes, both formal and informal, in which the citizen is involved.

### **PLSC 274** **3 F, S** **Introduction to Political Thought**

An introduction to the perennial questions and major thinkers in this area of philosophy.

### UPPER-DIVISION COURSES:

### **PLSC 328** **3 Su** **Critical World Issues**

An important issue is selected by the instructor, discussed in class, and studied as a research topic. May include one or more of the following: the elements of national power, the dynamics of state conflict, national traits and policy patterns, the role of ideologies or moral considerations in the decision-making process, and the relationship between a society's world view and the realities of policy-making. Repeatable for credit under different topics.

### **PLSC 329** **3 W** **Environmental Policy**

Examination of environmental issues and their role in shaping local and national policies in the United States. Of particular interest will be political responses to environmental crises, the creation of local and national laws and their impact on both rural and urban spaces and role of the United States Environmental Protection Agency. Prerequisite: PLSC 124.

### **PLSC 330** **3 S** **Modern Comparative Government**

Introduction to the different types of states and organizations of government around the world and the concepts, ideas and methods behind these variations. Focus on the comparison between the government of the United States and Western Europe. Includes economic development, political institutions and processes, democracy and democratizations, political culture, revolutions, nations and nationalism, and other selected topics. Prerequisites: PLSC 124, 274.

### **PLSC 340** **3 W** **History of Political Thought**

Selected ancient, medieval, and modern political thinkers. Prerequisite: PLSC 274. Even years.

### **PLSC 485** **3 S** **Foreign Relations of the United States**

Episodes selected from the history of American foreign relations to illustrate the development of U.S. foreign policy. Prerequisite: PLSC 124. Even years.

### **PLSC 494** **1-3 F, W, S, Su** **Internship**

Supervised work experience in a political science-related environment. Integration of academic study with workplace experience, including application of theoretical and methodological knowledge to real-world situations. Enrollment limited to department majors. Advanced approval of the department is required. May not be taken before the end of the sophomore year. Prerequisites: PLSC 124, 274; RELT 216 Qualifies for IP grading. Graded S/F.

### **PLSC 495** **1-3 F, W, S** **Independent Study**

Individual research; open only by permission of the department chair to advanced students with an adequate background. Repeatable to a maximum of 3 credits.

## Sociology

*(See Psychology & Social Work, Sociology area, for course descriptions.)*



## Faculty

Georgina Hill, program director; Roy Benton, Alexander Carpenter, Kent Davis, Hilary Dickerson, Aubyn Fulton, Sarah Kakazu, Paul McGraw, Tammy McGuire, Asher Raboy, Heather Reid, Gregory Schneider, Jean Sheldon, Steve Waters, Cynthia Westerbeck, Ross Winkle

Departmental Office: Stauffer Hall; 965-6612

## Degrees and Programs

Honors Program .....125

The Honors Program offers an alternative baccalaureate-level general education program for academically motivated students. It is built around a series of “great books,” or core texts, illustrating significant themes in the liberal arts. These works are supplemented by selected contemporary works, including films.

Students who complete the Honors Program have **no other general education requirements**. Students who fulfill the Honors Program requirements graduate “With Honors,” as designated on the official transcript, graduation program, and diploma.

Students with passing grades may transfer out of the Honors Program into the regular General Education program. Consult with the Honors director for specific details.

## The Goal of the Honors Program

The goal of the Honors seminars is to create an atmosphere in which students feel free to experiment with ideas and to test them in open debate with classmates and teachers. The program presents significant books, films, art, and music in a Christian context. Each student, regardless of educational goals, is encouraged to seek truth and to act upon it.

## Honors Program Requirements

A minimum of 67 hours (28 upper-division hours):

### ► Freshman Seminars:

HNRS 110	Foundations (5)
HNRS 120	Liberty and America (5)
HNRS 130	Scripture I (5)

### ► Sophomore Seminars:

HNRS 210	Cosmos (4)
HNRS 220	Self and Society (4)
HNRS 230	Scripture II (4)

### ► Summer Term Abroad:

HNRS 300	Beauty (5)
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### ► Junior Seminars:

HNRS 310	Virtue (4)
HNRS 320	Christianity (4)
HNRS 349	Pattern (4)

### ► Senior Seminars:

HNRS 410	Alterity (4)
HNRS 420	Progress (4)

### ► Honors Project:

HNRS 490	Honors Project I (1)
HNRS 491	Honors Project II (2)

### ► Language Study

Intermediate college-level language sequence. May be fulfilled by completion of 12 credits in a year-long intermediate foreign language sequence (Spanish, French, etc) or by 6 credits in intermediate Biblical Greek (RELL 235-236). Waived upon demonstrated intermediate-level proficiency in a foreign language.

\* If a student is admitted without having successfully completed Algebra II in secondary school, the student will need to complete the appropriate college course prior to graduation (see Section IV, Part A, of the General Education Requirements).

# Honors Program

## Admission to the Honors Program

Students with the following qualifications may apply for admission to the Honors Program: a strong academic record in secondary school, including four years of English, two years of history, three years of mathematics (including Algebra II), a year each of biology, chemistry, and physics; a “solid” subject GPA of at least 3.5; and standardized test scores (SAT, ACT, or equivalent) at the 80th percentile or higher.

Transfer students: Students with adequate freshman G.E. credit may be admitted to the Honors Program as late as fall quarter of the sophomore year, from which point they must complete 9 of the 12 required seminars. Juniors may apply for transfer into the program only if 1) they are willing to complete 9 seminars, or 2) they have been in an Honors program elsewhere, in which case they normally will be required to complete 6 seminars, including the summer term abroad. Transfer students must meet the Honors entrance requirements and provide two letters of recommendation from college teachers supporting their ability to do superior academic work. All transfer students must complete the Honors Project and cognate requirements.

## Continuance in the Honors Program

Students must maintain at least a 3.3 cumulative GPA while in the Honors Program.

Students should be aware of several additional features of the Honors Program:

1. The freshman seminars have a particularly strong writing component.
2. The Summer Term Abroad involves a month of study outside the United States.
3. The Honors Project allows students to examine an issue or problem of their own choosing. In consultation with a faculty advisor and the Honors director, students submit an Honors Proposal by the end of the junior year. A public presentation of the project must occur no later than two weeks prior to graduation.

## Honors Courses

*The honors courses are interdisciplinary; several are team-taught. Enrollment is open to students in the honors program.*

LOWER-DIVISION COURSES:

### **HNRS 110** **Foundations**

**5 F**

Explores several foundational texts of western culture that still inform our views of the world. Emphasizes critical reading and analytical writing. Fulfills the ENGL 101 College English requirement.

### **HNRS 120** **Liberty and America**

**5 W**

Explores themes of intellectual history, liberty and the roles and responsibilities of citizens in their communities with emphasis on the American experience and questions of democracy. Emphasizes critical reading and research writing. Fulfills the ENGL 102 College English requirement.

### **HNRS 130** **Scripture I**

**5 S**

Takes an interdisciplinary, thematic approach to six Old Testament books through history, art, music, literature and Eastern sacred texts. Examines application of these themes to contemporary life.

### **HNRS 210** **Cosmos**

**4 F**

Provides for a study of western philosophical approaches to science and the scientific method, with a particular emphasis on the investigation of physical and biological origins. Examines the metaphysical and epistemological underpinnings of science, as well as the relationship of science to religion and other fields which make claims about origins.

### **HNRS 220** **Self and Society**

**4 W**

Probes the questions that come from asking, “Who am I?” Looks at the idea of the self and how the individual is shaped by and relates to society as a whole.

**HNRS 230** **4 S**  
**Scripture II**

Examines how the New Testament canon was developed and explores the historical and cultural context out of which the New Testament was formed. Also looks at the literary qualities of New Testament texts and how those texts have influenced art and music.

UPPER-DIVISION COURSES:

**HNRS 300** **5 Su**  
**Beauty**

Explores questions of aesthetics as developed within western culture. Explores how beauty shapes views of us and our views of the world. The class is specifically designed to explore such questions in another country while exposing students to great works of art.

**HNRS 310** **4 F**  
**Virtue**

Explores issues of values and ethics from both within and beyond the Western tradition; examines how to make ethical decisions based on careful logic and an understanding of a variety of cultural and philosophical perspectives.

**HNRS 320** **4 W**  
**Christianity**

An exploration of the historical origins, core beliefs and modern relevance of Christianity through the study of core texts, ranging from ancient apologetics and epics to modern theology.

**HNRS 349** **4 S**  
**Pattern**

Explores the pervasive quest for pattern often associated with mathematical thought and the idea that patterning is characteristic of thinking in general. Also looks at how humans contemplate and communicate abstract ideas and the creative process involved in that undertaking. Questions are asked about why metaphors and similes are such powerful thinking tools, and whether computers will ever truly be able to think.

**HNRS 410** **4 F**  
**Alterity**

An intense examination of challenging perspectives of the ways we structure “otherness” and being “different.” Examines the ways hatred, fear, race, gender, economics, religion and love are used to define, classify and claim an understanding of peoples and cultures who are other than what we in the west believe ourselves to be.

**HNRS 420** **4 S**  
**Progress**

This capstone seminar is an examination of ideas of progress on both external and internal levels. The seminar engages perspectives on ways of dealing with disparities in the world. Personal progress is also explicitly examined and interrogated. The question is asked, “After taking Honors, how should one live one’s life?”

**HNRS 490+491** **1+2 S+W**  
**Honors Project I+II**

An individual research or creative project designed to explore issues, ideas, or art forms encountered in the Honors seminars.

HNRS 490 includes instruction and guidance for development of the project and foundations for research. Culminates in an approved project proposal. Taken during spring quarter of the junior year.

HNRS 491 includes continued instruction and guidance for completion of the research and refinement of the project. Culminates in the written and oral presentation of the final project. Taken during winter quarter of the senior year. Prerequisite: HNRS 490. Qualifies for IP grading.

**HNRS 495** **1-3 Arranged**  
**Independent Study**

Offers the advanced student opportunity to pursue investigation in a field of special interest under the direction of program faculty.







## Faculty

Steve Waters, chair; Roy Benton, Lloyd Best, Chantel Blackburn  
 Departmental Office: 238 Chan Shun Hall; 965-7269

## Degrees and Programs

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The MATHEMATICS DEPARTMENT provides courses for future mathematicians, teacher education, general education, and programs in other departments. A common goal of each course is that students will develop problem-solving skills based on mathematical reasoning and understanding, not merely rote memorization. Small class sizes promote communication and teamwork opportunities among students and faculty.

Students majoring in mathematics will have experience with mathematical modeling, abstraction, generalization, logical analysis, and mathematical technology. Students may select courses in order to focus on pure mathematics, applied mathematics, mathematics education, or actuarial certification. The major advisor will assist students with the selection of appropriate courses for each area of focus.

The biomathematics major is an attractive way to prepare for medical or dental school. The major provides excellent preparation for graduate study leading to a Master's Degree in Public health with emphasis in statistical analysis. A growing area of biological research uses sophisticated mathematics to study genetics, population fluctuations, and metabolic functions. This major provides entry to such graduate programs as Biomathematics, Biostatistics, Mathematical Biology, and Biometrics.

## Major in Mathematics, B.S.

A minimum of 67 hours (30 upper-division hours)

### ► Required Core Courses (42 hours):

MATH 131+132+133	Calculus I,II,III	4+4+4
MATH 265	Elementary Linear Algebra	4
MATH 269	Elementary Differential Equations	4
MATH 275	Logic and Sets	4
MATH 331	Probability Theory	3
MATH 351	Introduction to Abstract Algebra I	3
MATH 385	Mathematical Modeling	4
MATH 390	Seminar	1
MATH 421	Elementary Real Analysis I	3
MATH 490	Senior Seminar	1

At least one of the following courses:

MATH 332	Mathematical Statistics (3)	3
MATH 352	Introduction to Abstract Algebra II (3)	3
MATH 422	Elementary Real Analysis II (3)	3

### ► Required Core Electives (18 hours):

At least 18 hours of additional MATH courses, of which at least 12 hours must be upper-division.	18
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### ► Required Cognate Courses (7-9 hours):

CPTR 115	Intro. to Computer Programming	4
At least one of the following courses:		3-5
CHEM 451	Physical Chemistry (3)	
CPTR 132	Data Structures and Algorithms I (4)	
CPTR 347	Database Systems (4)	
CPTR 437	Computer Graphics (3)	
CPTR 455	Theory of Computation (3)	
ENGR 211	Engineering Mechanics (3)	
ENGR 216	Circuit Theory (4)	
FIN 341	Finance (5)	
INFS 470	Management Science (4)	
PHYS 211	Physics with Calculus (4)	
STAT 322	Statistical Methods (3)	

## Mathematics

All core and cognate courses should be chosen in consultation with the major advisor. In selecting courses, students are encouraged to consider the recommendations described below:

### *Pure Mathematics*

A focus on pure mathematics can lead to careers in university teaching and research following graduate studies in mathematics and related areas, such as statistics, computer science, and physics.

The following courses are recommended for students interested in pure mathematics: MATH 267, MATH 332, MATH 352, MATH 422, MATH 425, and MATH 465.

### *Applied Mathematics*

A focus on applied mathematics is a path to careers in medicine, government, business, and industry following graduate study in such areas as computational biology, operations research, and applied statistics.

The following courses are recommended for students interested in applied mathematics: MATH 332, MATH 355, MATH 375, STAT 322, INFS 470.

It is also recommended that students interested in applied mathematics earn at least a minor in an applied field such as Biology, Business Administration, Computer Science, Physics, or Psychology.

### *Mathematics Education*

A focus on mathematics education is a major component in a program of studies leading to the California Teaching Credential in secondary school mathematics.

The following courses are recommended for students interested in mathematics education: MATH 341, MATH 354, MATH 355, and MATH 451.

### *Actuarial Certification*

Actuarial certification can lead to careers in the insurance and investment industry, where actuaries use a broad knowledge of statistics, finance, and business.

The following courses are recommended for students interested in preparing for the national examinations for actuarial certification: MATH 267, MATH 332, MATH 375, STAT 322, and INFS 470.

## Major in Biomathematics, B.S.

*A minimum of 86 hours (30 upper-division hours)*

### ► *Required Core Courses (69 hours):*

BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 222	Introduction to Research Methods	2
CHEM 111+112+113	General Chemistry	5+5+5
CPTR 115	Intro to Computer Programming	4
MATH 131+132+133	Calculus I,II,III	4+4+4
MATH 265	Elementary Linear Algebra	4
MATH 269	Elementary Differential Equations	4
MATH 384	Biomathematics	4
MATH 385	Mathematical Modeling	4
MATH 390	Seminar	1
MATH 490	Senior Seminar	1
STAT 322	Statistical Methods	3

### ► *Required Core Electives (17 hours):*

*At least 17 hours from the following courses:* 17

*(Include at least one MATH course and two BIOL courses)*

BIOL 320	Cell and Molecular Biology (4)
BIOL 328	Animal Behavior (4)
BIOL 331	Marine Science (4)
BIOL 348	Systems Physiology (5)
BIOL 354	Genetics (4)
BIOL 430	Neurobiology (4)
BIOL 469	Immunology (4)
CHEM 371+372	Organic Chemistry I,II (4+4)
MATH 331	Probability Theory (3)
MATH 332	Mathematical Statistics (3)
MATH 351+352	Intro to Abstract Algebra I,II (3+3)
MATH 355	Combinatorics (4)
MATH 375	Numerical Analysis (4)
MATH 421+422	Elementary Real Analysis I,II (3+3)
MATH 425	Complex Analysis (4)
MATH 465	Linear Algebra (4)

### *Recommended Cognate Courses:*

CHEM 373	Organic Chemistry III (4)
CHEM 481	Biochemistry (4)
PHYS 111+112+113	General Physics (4+4+4)
or	
PHYS 211+212+213	Physics with Calculus (4+4+4)

Many of the core and elective courses for this major carry pre-requisites. All courses should be chosen and sequenced in consultation with the major advisor.

## Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in mathematics should take the B.S. degree in Mathematics and complete the recommended courses for the Mathematics Education focus. Students will need to pass the mathematics portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the Mathematics Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the section entitled “Education” in this catalog.

## Minor in Mathematics

*A minimum of 30 hours (6 upper-division hours)*

### ► Required Courses (16 hours):

MATH 131+132+133	Calculus I,II,III	4+4+4
MATH 275	Logic and Sets	4

### ► Required Electives (14 hours):

<i>At least 6 hours from the following:</i>	6
Additional upper-division MATH or STAT courses	

<i>At least 8 hours from the following:</i>	8
Additional MATH courses	

The following elective courses are especially recommended for students interested in secondary-level teaching: MATH 265, MATH 341, MATH 342, and MATH 351.

The following elective courses are especially recommended for students interested in engineering or a physical science: MATH 265, MATH 267, and MATH 269.

## Mathematics

### SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

### **MATH 095+096** **4+4 F, W, S** **Basic Algebra I,II**

Basic concepts and techniques of algebra for students without recent experience in algebra.

MATH 095 includes integers, algebraic expressions, first-degree equations and inequalities, simple rational expressions and proportions, integer exponents, scientific notation, polynomials, and graphing linear functions.

MATH 096 includes factoring, linear and quadratic equations, functions, graphs, rational expressions, rational exponents and radicals, equations involving rational and radical expressions, complex numbers, and systems of equations. Prerequisite: MATH 095 or equivalent.

### **MATH 106** **College Algebra**

**4 F, W, S**

Begins with a quick review of basic algebra, including rational exponents and radicals, complex numbers, linear and quadratic equations, and inequalities. Also includes polynomial and rational functions, binomial theorem, composition and inverse of functions, exponentials and logarithms, systems of equations, arithmetic and geometric progressions. Other topics may include further study of polynomials and/or linear programming. Prerequisite: Algebra II in secondary school (C- or above) or MATH 096.

### **MATH 113** **Trigonometry**

**2 S**

A study of the six trigonometric functions and their relationships to one another, as well as the study of applications involving these six functions. Included are degree and radian measure, right triangle trigonometry, graphs of the trigonometric functions, inverse trigonometric functions, fundamental identities, addition identities, double-angle and half-angle identities, solutions of trigonometric equations, law of cosines, law of sines, and vector triangles. Prerequisite: MATH 106 or a strong background in algebra.

# Mathematics

## **MATH 130** **Precalculus**

**5 F**

Functions and graphs emphasized as tools to prepare the student for calculus. Included are polynomial and rational functions, logarithmic and exponential functions, as well as a thorough treatment of the six trigonometric functions and their inverses. Prerequisite: MATH 106 or a strong background in algebra.

## **MATH 211+212** **Foundations of School Mathematics I,II**

**3+3 F+W**

A two-quarter sequence covering the logic and structure underlying school mathematics. Concepts, procedures, problem-solving and applications at concrete, pictorial, and abstract levels. Must be taken in sequence. Prerequisite: Algebra II in secondary school (C- or above) or MATH 096.

MATH 211 includes problem-solving techniques, sets, logic and deductive reasoning, the arithmetic of whole numbers, fractions, decimals, integers, rational and real numbers, ratio and proportion, and percent

MATH 212 includes geometry and measurement.

LOWER-DIVISION COURSES:

## **MATH 131+132+133** **4+4+4 F, W, S** **Calculus I,II,III**

A three-quarter standard sequence in single-variable and basic multi-variable calculus. Must be taken in sequence.

Prerequisite: Knowledge of algebra and trigonometry at the level provided by MATH 130 or by MATH 106 and 113.

MATH 131 focuses on differential calculus and its applications. Includes limits, all derivative tools (including transcendental functions), maximizing/minimizing applications, related rates, L'Hospital's rule, and antiderivatives. Graphing calculators and mathematical software tools are used extensively. Offered F, W.

MATH 132 focuses on integral calculus and its applications. Includes the fundamental theorems, general substitutions, integration by parts, applications to geometry and physics, differential equations, growth models, infinite series, and Taylor expansions. Graphing calculators and mathematical software tools are used extensively. Offered W, S.

MATH 133 focuses on calculus for multi-variable functions. Includes solid analytic geometry, parametric space curves, partial derivatives, gradients, and multiple integrals in various coordinate systems. Graphing calculators and mathematical software tools are used extensively. Offered S.

## **MATH 265** **4 F** **Elementary Linear Algebra**

Matrix algebra and determinants, applications to solving systems of linear equations, vector spaces, linear transformations, eigenvalues, and eigenvectors. Prerequisite: MATH 131.

## **MATH 267** **Vector Calculus**

**4 S**

Functions of more than one variable including the general chain rule, line and surface integrals, divergence, curl, gradient, and Stokes' theorem. Prerequisite: MATH 133.

## **MATH 269** **4 W** **Elementary Differential Equations**

Ordinary differential equations balancing analytic techniques, qualitative methods, and basic modeling. Topics include eigenvalue methods for linear systems, Laplace transforms, phase plane, null-clines, equilibria, harmonic oscillator, and population models. Prerequisite: MATH 132. Recommended prerequisite: MATH 265.

## **MATH 275** **4 S** **Logic and Sets**

A bridge to upper-division mathematics, developing the student's ability to handle abstract concepts and careful proofs. Propositional and predicate logic, various types of proof, algebra of sets and functions, equivalence relations, and countable sets. Prerequisite: MATH 131.

UPPER-DIVISION COURSES:

## **MATH 331** **3 W** **Probability Theory**

Theory and applications of probability theory. Probability distributions and densities including multivariate, marginal, and conditional distributions. Expected value, Chebyshev's and Bayes' theorems. Moment-generating functions and product moments. Special discrete and continuous distributions and densities. Prerequisites: MATH 132, STAT 222. Odd years.

**MATH 332** **3 S**  
**Mathematical Statistics**

Theory and application of sampling distributions, transformation of variables, central limit theory, estimation, hypothesis testing, Bayesian inference, and decision theory. Prerequisite: MATH 331. Odd years.

**MATH 341** **4 S**  
**Geometries**

The development and history of Euclidean geometry, the axiomatic method and various axiom sets for Euclidean geometry, history of the parallel postulate and discovery of non-Euclidean geometry, neutral and hyperbolic geometry, philosophical implications. Prerequisite: MATH 275. Even years.

**MATH 351+352** **3+3 F+W**  
**Introduction to Abstract Algebra I,II**

A two-quarter sequence introducing the basic topics in modern abstract algebra. Must be taken in sequence. Prerequisite: MATH 275. Odd years.

MATH 351 is a basic introduction to groups, rings, integral domains, fields, and isomorphisms. Also included are mappings, equivalence relations, and modular arithmetic.

MATH 352 is a continuation that stresses applications. Topics studied include polynomials, elementary Galois theory, geometric constructions, algebraic coding, lattices, and Boolean algebras.

**MATH 354** **3 F**  
**Number Theory**

Topics include Diophantine equations, theorems and conjectures about prime numbers, congruences, the theorems of Euler and Fermat, perfect numbers, continued fractions, and Pythagorean triples. Prerequisite: MATH 275. Even years.

**MATH 355** **4 F**  
**Combinatorics**

Permutations and combinations, occupancy models, generating functions, recurrence relations, principle of inclusion and exclusion, and pigeonhole principle. Graph Theory includes directed and undirected graphs, Euler and Hamiltonian paths, chromatic number, trees, matchings and coverings. Involves both theory and applications. Prerequisite: MATH 132. Recommended prerequisite: MATH 275. Odd years.

**MATH 375** **4 W**  
**Numerical Analysis**

Theory and techniques for finding approximate solutions to mathematical problems, including error analysis, interpolation, approximation, fixed-point iteration, nonlinear equations, systems of equations, integration, and ordinary differential equations. Prerequisites: MATH 132, 265, and CPTR 115. Even years.

**MATH 384** **4 S**  
**Biomathematics**

An introduction to the applications of mathematical methods in the modeling of various biological phenomena. Connections are made between diverse biological examples linked by common mathematical themes. Exploration of a variety of discrete and continuous ordinary and partial differential equation models. Prerequisites: MATH 265, MATH 269. Odd years.

**MATH 385** **4 S**  
**Mathematical Modeling**

Mathematical modeling of problems selected from a variety of applied areas, including industry, biology, business, and the social sciences. Both deterministic and stochastic models are considered, with an emphasis on practical problem-solving. Includes exploration of the computer as a problem-solving tool. Prerequisites: MATH 269 and CPTR 115. Even years.

**MATH 390** **1 S**  
**Seminar**

Topics of current interest in mathematics and mathematics education, including applications of mathematics in other fields, introduced through lectures, reports, and periodicals. Discussion of professional mathematics organizations, conferences, and publications. Prerequisite: upper-division standing. Graded S/F.

**MATH 421+422** **3+3 F+W**  
**Elementary Real Analysis I,II**

A two-quarter sequence focusing on the fundamental definitions and theorems underlying single-variable calculus and related topics. Must be taken in sequence. Prerequisites: MATH 132, 275. Even years.

MATH 421 includes the completeness property, limits of sequences and functions, and continuity.

MATH 422 is a continuation that covers derivatives, the Riemann integral, and infinite series.

**MATH 425** **4 S**  
**Complex Analysis**

The elements of the theory of analytic functions including Cauchy's theorem, calculus of residues, conformality, and applications. Prerequisites: MATH 133, 275. Even years.

**MATH 451** **4 W**  
**History of Mathematics**

A survey of major developments in mathematics from antiquity to modern times. Involves historically relevant problem sets, videos, class discussions, and presentations by students and teacher. Prerequisite: MATH 131. Odd years.

**MATH 465** **4 S**  
**Linear Algebra**

A deeper study than given in MATH 265, including Jordan form, inner product spaces, quadratic forms, Hamilton-Cayley theorem, and normal operators. Prerequisites: MATH 265, 351. Odd years.

**MATH 485** **1-4 Arranged**  
**Special Topics in Mathematics**

Study of a selected topic not covered elsewhere in the curriculum. Course content varies from year to year, reflecting current interest. Topics studied in recent years have been Differential Geometry, Set Theory and Cardinal Numbers, Formal Logic and Godel's Theorem, Topology, Chaos and Fractals. Repeatable for credit. Further information is available at the departmental office.

**MATH 490** **1 S**  
**Senior Seminar**

Topics of current interest in mathematics and mathematics education, including applications of mathematics in other fields. Under supervision of departmental faculty, each student prepares and presents a paper on a topic of interest. Prerequisite: MATH 390.

**MATH 495** **1-3 Arranged**  
**Independent Study**

Qualified students may, with the approval of the department chair, undertake a directed research problem suited to their background and experience. Repeatable to a maximum of 9 credits.

## Statistics

LOWER-DIVISION COURSE:

**STAT 222** **4 F, W, S, Su**  
**Introduction to Statistics**

Descriptive statistics, graphical methods, basic concepts of probability, binomial and normal probability distributions, central limit theorem, hypothesis testing involving means, confidence intervals, introduction to correlation and regression, and chi-square testing. Examples from a wide variety of disciplines, including business, the social sciences, and the life sciences, to prepare students with varying backgrounds and interests to become intelligent consumers and users of statistics. Prerequisites: Algebra II in secondary school (C- or above) or MATH 096, ENGL 101.

UPPER-DIVISION COURSE:

**STAT 322** **3 W, S**  
**Statistical Methods**

Linear and multiple regression and correlation, analysis of variance, time series analysis and forecasting, and non-parametric methods. Prerequisites: STAT 222, INFS 148 or equivalent.



## Faculty

*Sylvia Rasi Gregorutti, chair; Charo Caballero-Chambers*  
 Departmental Office: 212 Irwin Hall; 965-6574  
 Chair's Office: 965-6510

## Degrees and Programs

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The MODERN LANGUAGES DEPARTMENT offers instruction in French, German, Italian, and Spanish. A major is available in Spanish, and minors are available in French, German, Italian, and Spanish.

Pacific Union College participates in the Adventist Colleges Abroad Program (ACA), which provides opportunity for students to study the language of their choice in a foreign country. Participating campuses are in Argentina, Austria, Brazil, France, Germany, Greece, Italy, Japan, Spain, Thailand (Chinese) and Ukraine. Hebrew is taught at the Greek campus.

A student majoring in Spanish will spend from one to three quarters, as needed, in the Adventist Colleges Abroad Program in Spain or in Argentina and to take the courses prescribed by the major advisor. Summer programs are also available in Argentina and Spain.

## Major in Spanish, B.A.

*A minimum of 48 hours (30 upper-division hours)*

All students majoring in Spanish must complete in residence at Angwin at least three upper-division Spanish courses (minimum of twelve hours).

Students with a background in the Spanish language will be placed in the program in accordance with their ability. Those who achieve advanced placement on a departmental proficiency examination may complete a Spanish major by taking 30 hours of upper-division Spanish (12 hours in residence) and a minor in any field.

A student may choose from the following courses, all of which apply toward the major:

SPAN 132+33	Intensive Intermediate Spanish I+II	5+5
<i>or</i>		
SPAN 151+52+53	Intermediate Spanish I+II+III	4+4+4
<i>(Only one intermediate sequence may apply toward the major.)</i>		
SPAN 251	Spanish Conversation & Composition I	3
SPAN 252	Spanish Conversation & Composition II	3
SPAN 253	Spanish Conversation & Composition III	3
SPAN 367	Spanish and Latin American Culture and Civilization	4
SPAN 382	Applied Spanish Linguistics	4
SPAN 385	Business Spanish	4
SPAN 440	Spanish and Latin American Film	4
SPAN 441	Readings in Spanish Literature	4
SPAN 442	Readings in Latin American Literature	4
SPAN 495	Independent Study	1-6
Upper-division electives at ACA Campus*		

At the Spanish-language ACA campuses (Argentina and Spain), a student can choose from a variety of courses that apply to the Spanish major. Course descriptions are in the current *Adventist Colleges Abroad Bulletin* (available at the departmental office or online at [www.aca-noborders.org](http://www.aca-noborders.org)).

## Modern Languages

### *Recommended Foreign Language Cognate Courses:*

3-quarter sequence of beginning French, German, or Italian (12)  
CHIN 111 Beginning Chinese (4)

### *Additional Recommended Cognate Courses:*

ANTH 124 Cultural Anthropology (4)  
ARTH 115+116 History of Western Art I,II (4+4)  
COMM 330+430 Intercultural Communication I,II (3+2)  
HIST 240 Introduction to Latin American History (3)  
HIST 332 Europe Since Napoleon (4)  
PLSC 485 Foreign Relations of the United States (3)

## Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in a language other than English with a concentration in Spanish should take the B.A. degree in Spanish. Students will need to pass the language other than English (Spanish concentration) portion of the CSET exam one quarter prior to the full-time student teaching experience. Students are invited to discuss the program with the chair of the Modern Languages Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the section entitled "Education" in this catalog.

## Minors in French, German, Italian and Spanish

*A minimum of 30 hours at the intermediate level or higher (15 upper-division hours)*

A student desiring a minor in French, German or Italian usually spends one year studying abroad. Spanish minors usually require two quarters of study abroad.

## Language Placement

Students who have had previous work in a given language and wish to take a beginning course in that language must obtain the consent of the department chair.

Students from a Spanish background taking Spanish will normally enroll in SPAN 251+252+253 Spanish Conversation and Composition I,II,III.

Those unsure of what course to enroll in should consult with the department chair or the instructor teaching the language the student plans to take. A useful reference is the Modern Languages Lower Division Course Placement chart found on the department web page and in the Academic Advising Handbook.

## Adventist Colleges Abroad (ACA)

Pacific Union College is a member of Adventist Colleges Abroad (ACA), a consortium of colleges and universities operated by the Board of Higher Education of the North American Division of the Seventh-day Adventist Church. This consortium affords opportunity to qualified students for international study while completing the requirements of their programs at their home campus. The program allows students to immerse themselves in the culture and life of the host country and become conversant in the language; to mature socially, spiritually, and intellectually; and to develop sensitivity to cultural differences and a sense of responsibility for and mission to other peoples of the world.

The following institutions are international affiliates of ACA offering academic year programs of study:

Argentina	Universidad Adventista del Plata, Libertador San Martín Spanish Language and Latin American Culture
Austria	Seminar Schloss Bogenhofen, St. Peter am Hart German Language and Culture
Brazil	Instituto Adventista de Ensino, São Paulo Portuguese Language and Culture
England	Newbold College, Bracknell British Culture, Business, English, History
France	Campus Adventiste du Salève, Collonges-sous Salève French Language and Culture
Germany	Friedensau Adventist University, Friedensau bei Burg German Language and Culture
Italy	Istituto Avventista Villa Aurora, Florence Italian Language and Culture
Spain	Seminario Adventista Español, Sagunto Spanish Language and Culture

In addition to academic-year programs, ACA offers six-week summer terms at the following international study centers:

Argentina	See above
Austria	See above
Brazil	See above
France	See above
Greece	La Sierra University Study Center, Athens: Biblical Greek, Biblical Hebrew
Italy	See above
Japan	Saniku Gakuin College, Isumi-gun: Japanese
Spain	See above
Thailand	Asia-Pacific Internat'l University, Saraburi: Chinese
Ukraine	Ukrainian College of Arts and Sciences, Kiev: Russian



Applicants for international study need not be language majors or minors. Students majoring in various disciplines that allow for one or more elective years within the four-year curriculum may study in the year-abroad and summer session programs without losing credits or prolonging time before graduation by carefully planning the year(s) preceding and following their international study experience. Prerequisites for admission to ACA study abroad programs are as follows:

1. Admission as a regular student to Pacific Union College for the summer or academic year abroad.
2. Competence in the language of the host country for Argentina and Spain (minimum: one year of college or two years of secondary study with a language GPA of 2.50). This level of language competence is prerequisite to one's being considered for admission. Language competence is encouraged but not required of students enrolling in academic year programs in Austria, Brazil, France, Germany, or Italy, or of students in summer programs.
3. Regular academic standing at Pacific Union College and a minimum cumulative college GPA of 2.0.
4. A good citizenship record that gives evidence of better-than-average maturity, adjustability, and congeniality.
5. Presentation of the application with all required information and signatures (academic and financial arrangements) to the Pacific Union College Admissions Office by April 1 (summer program) or May 1 (academic year).
6. Attendance at an ACA orientation meeting at Pacific Union College.

College freshmen with competence in the language are not specifically excluded from ACA academic year programs, but the course of study is usually more beneficial to sophomores and juniors, especially those who plan to major or minor in the language. Although enrolled on an international campus, students are registered at Pacific Union College; are considered in

residence at this college; and are eligible for all external grants, loans, scholarships, and financial aid offered to students in attendance at Pacific Union College. Credit earned abroad is recorded each term in the Pacific Union College Records Office. Students must obtain prior permission from the Pacific Union College Records Office to earn more than 18 credits for a term.

The Adventist Colleges Abroad program offers a wide variety of language courses at intermediate and advanced levels concentrating on grammar, orthography, composition, phonetics, conversation, reading, pronunciation, literature, culture, civilization, and folklore as well as courses in art, education, geography, history, music, physical education, and religion.

Applicants must consult with their major professors, the Modern Language faculty, and the ACA coordinator before enrollment. Pacific Union College personnel advise students about courses to take abroad and determine how the credits will apply toward graduation requirements. Those who carefully plan their academic-year programs with Pacific Union College advisors may earn up to 54 quarter hours toward a baccalaureate degree. ACA courses may apply toward the major, minor, general education, and elective requirements; credit is awarded on the basis of course prefix.

ACA courses are in high demand; applications are processed in the order received. Applications are available at the Admissions Office and the Modern Languages Department. The PUC deadline for summer applications is April 1; for academic year programs, May 1.

For further information:

Adventist Colleges Abroad  
 12501 Old Columbia Pike  
 Silver Spring, MD 20904-6600  
 PHONE (301) 680-6444, FAX (301) 680-6463  
 E-mail: [aca@nad.adventist.org](mailto:aca@nad.adventist.org)  
 Website: [www.aca-noborders.org](http://www.aca-noborders.org)

**Modern Languages**

SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

**CHIN 111** **4 W**  
**Beginning Chinese I**

See course description under SPAN 111.

**FREN 111+112+113** **4+4+4 F+W+S**  
**Beginning French I+II+III**

See course description under SPAN 111+112+113. Must be taken in sequence.

**GRMN 111+112+113** **4+4+4 F+W+S**  
**Beginning German I+II+III**

See course description under SPAN 111+112+113. Must be taken in sequence.

**ITAL 111+112+113** **4+4+4 F+W+S**  
**Beginning Italian I+II+III**

See course description under SPAN 111+112+113. Must be taken in sequence.

# Modern Languages

## Spanish

### SERVICE COURSES:

(Not applicable to a major or minor in this department)

#### **SPAN 105** **3 F, W** **Spanish for Health Care Professionals: Basic**

Conversational Spanish for health service professionals emphasizing pronunciation, vocabulary, and oral communication for medical settings. Designed for students who do not have a background in the Spanish language.

#### **SPAN 111+112+113** **4+4+4 F+W+S** **Beginning Spanish I+II+III**

Designed to develop speaking, listening, reading, and writing skills in the language studied. Basic grammar and vocabulary presented through a proficiency-oriented approach emphasizing the practical use of the language.

All courses include an introduction to selected elements of the cultures in countries where the language is used. The first course in the sequence includes a special emphasis on the cultural component, as designated in the course title by L&C (Language & Culture).

*These courses are not for students who have had two or more years of secondary school coursework in the language.* Must be taken in sequence.

#### **SPAN 131** **5 F** **Intensive Spanish Review**

Intensive “bridge” for students who have completed a beginning course in Spanish but need review and practice before beginning the intermediate level. Includes laboratory practice. Prerequisite: One or two years of Spanish in secondary school.

### LOWER-DIVISION COURSES:

#### **SPAN 132+133** **5+5 W+S** **Intensive Intermediate Spanish I+II**

Continuation of SPAN 131, providing intensive study of Intermediate Spanish (see course description under SPAN 151+152+153). Must be taken in sequence. Prerequisite: Passing grade in SPAN 131 or equivalent.

#### **SPAN 151+152+153** **4+4+4 F+W+S** **Intermediate Spanish I+II+III**

Designed to increase proficiency in speaking, listening, reading and writing the language studied. Focus on reinforcing control of basic grammar and on vocabulary expansion. Selected cultural features of countries where the language is used. Individualized laboratory practice. Must be taken in sequence. Prerequisite: Two years of secondary Spanish or SPAN 111+112+113 or its equivalent.

#### **SPAN 205** **3 S** **Spanish for Health Care Professionals: Intermediate**

Conversational Spanish for health service professionals emphasizing pronunciation, vocabulary, and oral communication for medical settings. Designed for students who have one or more years of college-level Spanish or are native or semi-native speakers of Spanish. Students who have earned credit for SPAN 105 are not eligible to earn credit for SPAN 205.

#### **SPAN 251+252+253** **3+3+3 F+W+S** **Spanish Conversation and Composition I+II+III**

Emphasis on oral and written expression in Spanish. For non-native students having completed more than two years of secondary-school Spanish or intermediate-level college Spanish; and for students whose native language is Spanish. Fulfills the intermediate-level general education language requirement for the B.A.

### UPPER-DIVISION COURSES: (*Taught in Spanish*)

#### **SPAN 367** **4 F** **Spanish and Latin American Culture and Civilization**

A study of Spanish and Latin-American culture and civilization with emphasis on contemporary life. Even years.

#### **SPAN 382** **4 F** **Applied Spanish Linguistics**

Introduces principles of phonetics, phonology, morphology, and syntax. Special reference to foreign language teaching methodology and the particular problems of teaching Spanish. Odd years.

#### **SPAN 385** **4 W** **Business Spanish**

Practice and vocabulary-building in Spanish as used in business, commerce, finance, and economics. Business practices and current events in the Spanish-speaking world. Odd years.

#### **SPAN 440** **4 S** **Spanish and Latin American Film**

Examination and discussion of historical, socio-economic and political issues as portrayed in Spanish and Latin American films. Even years.

#### **SPAN 441** **4 W** **Readings in Spanish Literature**

Readings in representative poets, novelists, and playwrights. Even years.

#### **SPAN 442** **4 S** **Readings in Latin American Literature**

Readings in representative poets, novelists and playwrights. Odd years.

#### **SPAN 495** **1-3 Arranged** **Independent Study**

Thirty-six hours of reading per hour of credit. A weekly conference with the instructor. Enrollment limited to Spanish majors; admission by approval of the instructor. Repeatable once for credit.



**Faculty**

*Rachelle Berthelsen Davis, chair; Bruce Rasmussen, Rosalie Rasmussen, Lynn Wheeler  
Asber Raboy, Artist in Residence  
Departmental Office: 102 Paulin Hall; 965-6201*

**Degrees and Programs:**

Music, B.Mus. ....	140
Music, B.S. ....	142
Music, A.S. ....	142

The MUSIC DEPARTMENT offers a two-year Associate of Science degree and two four-year curricula leading to Bachelor of Music and Bachelor of Science degrees. Emphasis in the Bachelor of Music degree may be in Music Education or in Performance.

**Entrance Requirements**

All music majors must take the Functional Keyboard Facility Examination the first quarter in residence. Unsatisfactory performance mandates enrollment in MUSP 121.

**General Performance Requirements**

Study in the major performance area is required each quarter of residence for Bachelor of Music majors. Performance emphasis majors must take an additional 6 hours of secondary performance credit. Secondary performance studies are usually permitted only after the student has reached upper-division status in the major performance area. Credit is based upon a half-hour lesson and four hours of practice per week for each credit hour earned.

A juried performance is expected each quarter for music majors when they are taking lessons in their major performance areas. A student preparing a required recital must perform the program for a faculty audition committee one month prior to the projected recital date. Specific year-by-year requirements in the various performance areas and details regarding jury evaluations are available at the Music Department Office and in the *Music Department Student Handbook*.

**Required Recitals & Ensembles**

Performance emphasis majors present a half-hour recital (MUSP 390) during the junior year and a one-hour recital (MUSP 490) in the senior year. Music education emphasis majors present a half-hour recital (MUSP 489) in the senior year. Bachelor of Science majors present a half-hour recital (MUSP 489) during the senior year or complete a special project (MUED 489) in an area of particular interest. The topic is chosen in consultation with the department chair and a teacher in the area of the project, with the approval of the music faculty. Associate of Science majors perform a minimum of 15 minutes in a recital (MUSP 289) during their last quarter of lessons.

All majors must periodically perform in general student recitals. For details, see the *Music Department Student Handbook*.

All four-year degree majors are required to register for ensemble credit each quarter in residence except while doing student teaching. Associate of Science majors are required to register for a minimum of six quarters of ensembles.

**Concert Attendance**

All four-year majors are required to attend a minimum of seven art music concerts each quarter in residence. Associate of Science majors are required to attend seven art music concerts during each quarter they are taking courses for the degree.

**Certificate of Achievement**

To encourage excellence in performance, the department may award the Certificate of Achievement to any outstanding music major who presents a recital or is soloist in a major performance of particularly high quality during each of the four years in residence. The student must apply to the music faculty for this award after giving the final recital.

**Required Examinations**

All music majors are required to take examinations prepared by departmental faculty during their first and last quarter in residence and the Major Field Achievement Test in music is required during the final quarter before graduation.

# Music

## Bachelor of Music, B.Mus.

Minimum of 123 hours (56 upper-division hours)

### ► Required Core Courses (41 hours):

MUED 241	Basic Conducting	2
MUHL 245	World Music and Culture	3
MUHL 331	Music/Antiquity through Baroque	3
MUHL 332	Music/Classic & Romantic Eras	3
MUHL 333	Contemporary Music	3
MUTH 121+121L	Theory I & Laboratory	3+1
MUTH 122+122L	Theory I & Laboratory	3+1
MUTH 123+123L	Theory I & Laboratory	3+1
MUTH 221+221L	Theory II & Laboratory	3+1
MUTH 222+222L	Theory II & Laboratory	3+1
MUTH 223+223L	Theory II & Laboratory	3+1
MUTH 224	Music Tech: Notation	1
MUTH 225	Music Tech: Editing & Synthesis	2

### ► Emphases (Choose one):

**Music Education Emphasis** (110-113 hours)

### ► Required Core Courses (62 hours):

#### Music Education

MUED 338	Music for Children	2
MUED 338L	Music for Children Laboratory	1
MUED 342	Instrumental Conducting	3
MUED 343	Choral Conducting	3
MUED 381	Music in Elem. & Sec. Schools	2
MUED 382	Music in Elem. & Sec. Schools	2
MUED 383	Music in Elem. & Sec. Schools	2
<i>At least 10 hours from the following*:</i>		10
MUED 370	Handbell Techniques/Methods (1)	
MUED 371**	Trumpet Techniques/Methods (1)	
MUED 372**	Trombone Techniques/Methods (1)	
MUED 373	Horn/Tuba Techniques/Methods (1)	
MUED 374**	Flute Techniques/Methods (1)	
MUED 375**	Single-Reed Techniques/Methods (1)	
MUED 376	Double-Reed Techniques/Methods (1)	
MUED 377**	Percussion Techniques/Methods (1)	
MUED 378**	Violin/Viola Techniques/Methods (1)	
MUED 379	Cello/Db'l Bass Techniques/Methods (1)	
MUED 473+474	Piano Pedagogy (1+1)	
MUED 475+476	Organ Pedagogy (1+1)	
MUED 477**	Voice Pedagogy (2)	
MUED 478+479	String Pedagogy (1+1)	

\* Piano majors must take MUED 473+474 and organ majors must take MUED 475+476.

\*\* Required courses (unless they are in the major performance area).

#### Music Ensemble

MUEN	Music Ensembles	12
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One large ensemble for each quarter in residence except the student-teaching quarter. Participation in both choral and instrumental ensembles for a minimum of three quarters each and in a small ensemble in the area of one's specialty for a minimum of one quarter. For piano majors, three of the total hours must be in MUEN 359 Keyboard Ensemble. When MUEN 359 is taken, the large ensemble is not required.

#### Music Performance

MUSP 163/363	Performance Studies: Major (maximum 6 hours lower-division)	12
MUSP 489***	Senior Recital	1

#### Music Theory

MUTH 331	Orchestration	3
MUTH 332	Counterpoint	3
MUTH 431	Form & Analysis	3
MUTH 432	Composition	1+1+1

### ► Required Professional Education Courses (48-51 hours):

See the section entitled "Education" in this catalog for further information about prerequisites and admission to the teacher education program.

EDUC 101	Introduction to Teaching	1
EDUC 101L	Classroom Observations	1
EDUC 332	Computer Technology for Teachers	2
EDUC 332L	Computer Technology Laboratory	1
EDUC 333	Educational Psychology	3
EDUC 335	Ethical Dimensions of Teaching & Learning	2
EDUC 336	The Multicultural Classroom	3
EDUC 339	ELL Pedagogy	2
EDUC 340	Exceptional Children/Classroom	3
EDUC 358	Literacy in the Content Areas	3
EDUC 361	Middle School Teaching Strategies	3
EDUC 362	Secondary Content Area Teaching Strategies	3
EDUC 477	Classroom Management	3
EDUC 490	STS: Subject Specific	1
EDUC 491	STS: Designing Instruction	1
EDUC 492	STS: Assessing Learning	1
EDUC 494	Beginning Reading Field Experience	1
EDUC 494	Math Field Experience	1
EDUC 494	Full-Time Student Teaching	12
EDUC 498	STS: Culminating Teaching Experience	1

#### Optional- for SDA Certification

EDUC 368/L	K-12 Bible & Practicum	0-3
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\*\*\* Under unusual circumstances, MUED 489 Senior Project may meet this requirement by special permission of the department.

**Recommendation for Directed Teaching**

Before acceptance into the Directed Teaching program, students must have passed the Keyboard Proficiency and Keyboard Harmony Examinations as prerequisites for recommendation by the music faculty. For details, see the *Music Department Student Handbook*.

**Teaching Credential**

Students desiring to enter a program of studies leading to a California teaching credential in music should take the B.Mus. degree with the emphasis in Music Education. Students will need to pass the music portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the Music Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the Education section of this catalog.

**Performance Emphasis (82 hours)**

**Music Education**

MUED 349 Directed Teaching (in major area) 1+1

*One of the following courses:* 3

MUED 342 Instrumental Conducting (3)

MUED 343 Choral Conducting (3)

*At least 4 hours from the following\*:* 4

MUED 370 Handbell Techniques/Methods (1)

MUED 371 Trumpet Techniques/Methods (1)

MUED 372 Trombone Techniques/Methods (1)

MUED 373 Horn/Tuba Techniques/Methods (1)

MUED 374 Flute Techniques/Methods (1)

MUED 375 Single-Reed Techniques/Methods (1)

MUED 376 Double-Reed Techniques/Methods (1)

MUED 377 Percussion Techniques/Methods (1)

MUED 378 Violin/Viola Techniques/Methods (1)

MUED 379 Cello/Db'l Bass Techniques/Methods (1)

MUED 473+474 Piano Pedagogy (1+1)

MUED 475+476 Organ Pedagogy (1+1)

MUED 477 Voice Pedagogy (2)

MUED 478+479 String Pedagogy (1+1)

\* Piano majors must take MUED 473+474; organ majors must take MUED 475+476; voice majors must take MUED 477; string majors must take MUED 478+479; and all other majors must take 2 hours of MUED 495, studying the pedagogy and literature of their area of performance emphasis.

**Music Ensemble**

One large ensemble for each quarter in residence. 12

For piano majors, three of the twelve hours must be in MUEN 359, Keyboard Ensemble. When MUEN 359 is taken, the large ensemble is not required.

Chamber music in the major area 3

**Music Performance**

MUSP 164+364 Performance Studies: Major 36  
(maximum 18 hours lower-division)

MUSP 386 Performance Studies: Secondary Area 6

MUSP 390 Junior Recital 1

MUSP 490 Senior Recital: Emphasis Major 1

**Music History and Literature** 2

A literature course in the area of the student's major. Keyboard majors take MUHL 337; string majors take MUHL 339; all others take MUHL 495 studying the literature of their major instrument.

**Music Theory**

MUTH 331 Orchestration 3

MUTH 332 Counterpoint 3

MUTH 431 Form & Analysis 3

MUTH 432 Composition 1+1+1

**► General Education Requirements:**

The general-education requirements for the B.Mus. degree are the same as for the B.S. degree except as indicated below.

1. I.C (Statistics) is not required.
2. Only one course is required in III.B (Social Sciences).
3. Only one course is required from IV.B.1 (Visual Arts), IV.B.3 (Philosophy), or IV.B.4 (Language & Culture).
4. IV.B.2 (Music) is met by the major.
5. Only two courses are required from V.B (Science) and V.C (Applications of Scientific and Mathematical Reasoning). The courses must come from separate subsections and one course must include a laboratory.
6. Section VII (Practical and Applied Arts) is not required.
7. Section VIII (Foreign Language) is not required, except that voice emphasis majors require one year of French, German, or Italian.

Special GE considerations for music education emphasis majors:

1. Teacher candidates must pass a test or take a course in U.S. Constitution (satisfied by HIST 134+135 or HIST 356 or PLSC 124).
2. Teacher candidates must complete RELH 360 as well as 3 hours of Doctrinal Studies (RELT 205 or 220) in order to obtain the SDA Certification.
3. Teacher candidates must take HLED 166.

# Music

## Major in Music, B.S.

A minimum of 69 hours (21 upper-division hours)

### ► Required Core Courses (64 hours):

MUED 241	Basic Conducting	2
MUHL 245	World Music and Culture	3
MUHL 331	Music/Antiquity through Baroque	3
MUHL 332	Music/Classic & Romantic Eras	3
MUHL 333	Contemporary Music	3
MUTH 121+121L	Theory I & Laboratory	3+1
MUTH 122+122L	Theory I & Laboratory	3+1
MUTH 123+123L	Theory I & Laboratory	3+1
MUTH 221+221L	Theory II & Laboratory	3+1
MUTH 222+222L	Theory II & Laboratory	3+1
MUTH 223+223L	Theory II & Laboratory	3+1
MUTH 224	Music Tech: Notation	1
MUTH 225	Music Tech: Editing & Synthesis	2
MUSP 163 and 363	Performance Studies: Major (maximum 6 hours lower-division)	7
MUEN	Large Ensembles (One for each quarter in residence)	12

At least 3 hours from the following:

MUTH 331	Orchestration (3)	3
MUTH 332	Counterpoint (3)	
MUTH 431	Form & Analysis (3)	
MUTH 432	Composition (1-3)	

At least one of the following courses:		1
MUED 489	Senior Project (1)	
MUSP 489	Senior Recital (1)	

### ► Required Core Electives (5 hours):

At least 5 hours from the following:		5
Five additional hours selected in consultation with the advisor and approved by the music faculty to develop a solid background in the area of the student's recital or project.		

## Major in Music, A.S.

A minimum of 42 hours

### ► Required Core Courses (33 hours):

MUHL 105	Survey of Music	3
MUHL 245	World Music and Culture	3
MUTH 121+121L	Theory I & Laboratory	3+1
MUTH 122+122L	Theory I & Laboratory	3+1
MUTH 123+123L	Theory I & Laboratory	3+1
MUED 241	Basic Conducting	2
MUEN	6 Quarters of Ensemble	6
MUSP 163	Performance Studies	6
MUSP 289	Associate Recital	1

### ► Required Core Electives (9 hours):

9 hours of music electives, selected in consultation with the music advisor.		9
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## Music Education

LOWER-DIVISION COURSES:

### MUED 106 2 F Issues in Church Music

Analysis of issues in church music. Acquaints students with traditional and contemporary worship practices. Odd years.

### MUED 241 2 S Basic Conducting

Foundation for the development of skill in the art of conducting various ensembles.

### MUED 251+252+253 1+1+1 F+W+S Singer's Diction

Correct pronunciation of text in other languages (Latin, English, German, Italian and French), based on the International Phonetic Alphabet (IPA). Builds good habits of tone, based on vowel placement and consonant articulation. Required of voice majors. Must be taken in sequence.

UPPER-DIVISION COURSES:

### MUED 338 2 F Music for Children

Music for children from infancy through lower elementary school grades. Surveys standard children's music meth-

ods. Emphasizes development of a child's voice through solfege and authentic folk materials and covers teaching methods for singing, rhythmic activities and listening skills. Odd years.

### MUED 338L 1 F, W, S Music for Children Laboratory

Observation and practical experience with young children, using methods discussed in MUED 338. Highly recommended complement to MUED 338. May be taken any quarter. Prerequisite: MUED 338.

**MUED 342 3 W**  
**Instrumental Conducting**

Practical work with instrumental groups. Stick technique, score reading and preparation, aural skills for conductors, and other related activities. Prerequisite: MUED 241. Even years.

**MUED 343 3 W**  
**Choral Conducting**

Development of conducting gestures and rehearsal techniques for choral ensembles. Opportunities are provided to conduct secondary and college-level choral groups. Prerequisite: MUED 241. Odd years.

**MUED 349 1 F, W, S**  
**Directed Teaching: Music**

Lessons taught by students in studio or classroom. Supervised and evaluated. Usually taken in conjunction with MUED 473 or 478 and continued winter and spring quarters. Repeatable to a maximum of 3 credits.

**MUED 370 1 W**  
**Handbell Techniques and Methods**

Basic and advanced ringing techniques, handbell literature, group organization, solo and ensemble ringing, bell assignments, and bell maintenance. Even years.

**MUED 371 1 F**  
**Trumpet Techniques and Methods**

Teaching and performing the instrument through the intermediate level. Performance techniques, pedagogical methods and materials, maintenance, and practical teaching experience. Odd years.

**MUED 372 1 W**  
**Trombone Techniques and Methods**

See MUED 371. Odd years.

**MUED 373 1 S**  
**Horn/Tuba Techniques and Methods**

See MUED 371. Odd years.

**MUED 374 1 F**  
**Flute Techniques and Methods**

See MUED 371. Even years.

**MUED 375 1 W**  
**Single-Reed Techniques and Methods**

See MUED 371. Even years.

**MUED 376 1 S**  
**Double-Reed Techniques and Methods**

See MUED 371. Even years.

**MUED 377 1 F**  
**Percussion Techniques and Methods**

See MUED 371. Emphasis on snare drum, timpani, and mallets. Solo and ensemble playing. Even years.

**MUED 378 1 F**  
**Violin/Viola Techniques and Methods**

Ability to play and teach the instruments at the beginning and intermediate levels. Elementary individual and class methods of instruction and basic maintenance. Odd years.

**MUED 379 1 W**  
**Cello/Double Bass Techniques and Methods**

See MUED 378. Even years.

**MUED 381+382+383 2+2+2 F+W+S**  
**Music in Elementary and Secondary Schools I+II+III**

MUED 381: Theories of and practice with musical development. Emphasizes the Kodály approach to teaching music in the elementary school. Deals with vocal development of children from the nonsinger to the junior-high chorister.

MUED 382: Music education philoso-

phies and their practical applications for designing and implementing a secondary school choral curriculum. Topics include recruitment, auditions, repertoire selection, and classroom management.

MUED 383: Development and maintenance of instrumental programs in elementary, middle, and secondary schools. Objectives, evaluative techniques, motivation, administration, recruiting, scheduling, technology, repertoire, and current topics.

Prerequisites: MUED 241 and 338. Even years.

**MUED 473+474 1+1 F+W**  
**Piano Pedagogy**

Teaching piano, including materials and methods of instruction. Recommended corequisite: MUED 349. Odd years.

**MUED 475+476 1+1 W+S**  
**Organ Pedagogy**

Teaching organ at beginning and intermediate levels. Survey of materials and methods of instruction. Odd years.

**MUED 477 2 S**  
**Vocal Pedagogy**

Principles and methods of vocal instruction in Western cultures. Even years.

**MUED 478+479 1+1 F+W**  
**String Pedagogy**

Teaching string instruments, with emphasis on the area of the student's specialty. Includes materials and methods of instruction. Recommended corequisite: MUED 349. Even years.

**MUED 489 1 F, W, S**  
**Senior Project**

Special project for B.S. majors and, in lieu of MUSP 489, for B.Mus. education emphasis majors in unusual circumstances. By permission of the music faculty and in consultation with the advisor and the department chair.

# Music

## **MUED 495** 1-3 Arranged **Independent Study**

Advanced independent project in music education. Requires approval of the department chair. Repeatable to a maximum of 3 credits.

## **Music Ensembles**

*The following satisfy the music major large-ensemble requirements: Chorale, I Cantori, Orchestra, Symphonic Wind Ensemble, and Keyboard Ensemble. Additional small ensembles are also offered.*

*All music ensembles are repeatable for credit. Upper-division credit for juniors and seniors is determined by the student's proficiency and previous experience in college-level music.*

## **MUEN 154 or 354** 1 F, W, S **I Cantori**

Mixed-voice chamber ensemble designed for voice majors and other serious vocal students. Considered a major touring ensemble; enjoys a full performance schedule. Core repertoire, both sacred and secular, performed with demanding performance standards. Auditions at the beginning of fall quarter, and membership is required for the complete year. Corequisite: MUEN 161.

## **MUEN 155 or 355** 1 F, W, S **Symphonic Wind Ensemble**

Advanced instrumentalists rehearse and perform a wide variety of music in various settings. Tours and workshops on alternate-year basis. By audition.

## **MUEN 156 or 356** 1 F, W, S **Orchestra**

Orchestral masterworks performed in quarterly concerts and other events. For advanced instrumentalists, both college students and community residents. By audition.

## **MUEN 157 or 357** 1 F, W, S **String and Piano Chamber Music**

Experience with chamber music for piano with strings under the direction of a Music faculty member. Includes duos, trios, and larger groups.

## **MUEN 159 or 359** 1 F, W, S **Keyboard Ensemble**

Literature for keyboard duets, duos, and groups with instruments or voices and keyboard accompaniment. Three quarters required of all B.Mus. or A.S. Piano Pedagogy Module majors.

## **MUEN 160 or 360** 1 F, W, S **Jazz Ensemble**

Emphasis on the rehearsal and performance of a range of jazz styles. Development of reading and improvisation skills. By audition.

## **MUEN 161 or 361** 1 F, W, S **Chorale**

Large mixed chorus considered a minor touring ensemble. Repertoire includes music from a wide range of styles and periods, both sacred and secular. Membership is preferred for the complete year. By audition.

## **MUEN 175 or 375** 1 Arranged **Flute Quartet**

Normally limited to members of Symphonic Wind Ensemble. By audition.

## **MUEN 178 or 378** 1 Arranged **Saxophone Quartet**

Normally limited to members of Symphonic Wind Ensemble. By audition.

## **MUEN 179 or 379** 1 Arranged **Woodwind Quintet**

Normally limited to members of Symphonic Wind Ensemble. By audition.

## **MUEN 180 or 380** 1 Arranged **Brass Quintet**

Normally limited to members of Symphonic Wind Ensemble. By audition.

## **MUEN 181 or 381** 1 Arranged **Brass Ensemble**

Normally limited to members of Symphonic Wind Ensemble. By audition.

## **MUEN 182 or 382** 1 Arranged **Trombone Choir**

By audition.

## **MUEN 184 or 384** 1 F, W, S **String Quartet**

Normally limited to members of the Orchestra. By audition.

## **MUEN 186 or 386** 1 F, W, S **Handbell Choir**

MUEN 186 is open to any student with music reading skills. MUEN 386 rings music at or above level three. By audition. Performs both on and off campus.

## **Music History and Literature**

LOWER-DIVISION COURSES:

## **MUHL 105** 3 F, W, S **Survey of Music**

Music in western civilization, including music fundamentals and a brief history from antiquity to the present. Emphasis on Western classical music. Presented by recordings, visual aids, and lectures.

## **MUHL 206** 2 W **Music in Christian Worship**

History and practice of the use of music in worship services. Emphasis on both liturgical and nonliturgical forms of worship. Odd years.



**MUHL 245** **3 W**  
**Introduction to World Music and Culture**

Exploration of the importance of music in society around the world. Examines how people from a wide variety of cultures incorporate music into their lives. Emphasis is placed on non-Western and folk music.

UPPER-DIVISION COURSES:

**MUHL 331** **3 F**  
**Music from Antiquity Through the Baroque**

Music history through the Baroque Era. Development of forms and styles, cultural backgrounds and biographies, and analysis of basic musicological methods. Prerequisites: ENGL 101, the ability to read both bass and treble clefs, and a basic knowledge of music theory. Recommended prerequisite: MUTH 121, 122, 123. Odd years.

**MUHL 332** **3 W**  
**Music of the Classic & Romantic Eras**

Music history of the Classic and Romantic Eras. See description and prerequisites for MUHL 331. Odd years.

**MUHL 333** **3 S**  
**Contemporary Music**

Music history from the Post-Romantics to the present. Includes some discussion of non-classical American music and its effect on the composition of classical music. See description and prerequisites for MUHL 331. Odd years.

**MUHL 337** **2 W**  
**Keyboard Literature**

Explores the development of keyboard instruments as well as genres and literature pertaining to teaching and performance. Even years.

**MUHL 339** **2 W**  
**String Literature**

Explores the development of string instruments as well as genres and literature pertaining to teaching and performance. Odd years.

**MUHL 495** **1-3 Arranged**  
**Independent Study**

Advanced, independent project in music history. Requires approval of the department chair. Three hours maximum.

**Music Performance**

LOWER-DIVISION COURSES:

**MUSP 120-124** **1 F, W, S**  
**Music Lessons: Class Instruction**

Lessons for groups of four or more students in voice or instruments. Meets one clock hour per week. Not applicable toward the principal performance area of a music major. Repeatable for credit.

**MUSP 162** **1-2 F, W, S**  
**Music Lessons: General**

Elementary instruction in voice, harpsichord, organ, piano, guitar, and orchestra and band instruments. Not applicable toward the music major. Incurs an additional charge.\* Repeatable for credit.

**MUSP 163** **1-2 F, W, S**  
**Performance Studies: Major**

Private lessons in voice, harpsichord, organ, piano, guitar, and orchestra and band instruments. Applicable to all majors except B.Mus. performance emphasis. One hour is usually taken each quarter. Repeatable for credit.

**MUSP 164** **1-3 F, W, S**  
**Performance Studies: Emphasis Major**

Private lessons in voice, harpsichord, organ, piano, guitar, orchestra and band instruments. Applicable to B.Mus. performance emphasis. Three hours are usually taken each quarter. Repeatable for credit.

**MUSP 289** **1 F, W, S**  
**Associate Degree Recital**

Required of associate degree students, the final quarter of lessons culminates in this recital. Minimum of 15 minutes.

UPPER-DIVISION COURSES:

**MUSP 319** **1-2 W**  
**Keyboard Harmony**

For pianists and organists. Learning to transpose, modulate, and harmonize melodies; developing ability to improvise. Admission by permission of the instructor. Odd years.

**MUSP 320-324** **1 F, W, S**  
**Music Lessons: Class Instruction**  
 (See description of MUSP 120-124.)

**MUSP 362** **1-2 F, W, S**  
**Music Lessons: General**  
 (See description of MUSP 162.)

**MUSP 363** **1-2 F, W, S**  
**Performance Studies: Major**  
 (See description of MUSP 163.)

**MUSP 364** **1-3 F, W, S**  
**Performance Studies: Emphasis Major**  
 (See description of MUSP 164.)

\* For further information on the cost of private music lessons, see the section entitled "Financial Information" in this catalog.

# Music

**MUSP 386** 1 F, W, S

**Performance Studies:  
Secondary Area**

Private lessons for Bachelor of Music majors in secondary areas. Limited to one area and one hour credit per quarter. Selected in consultation with the major advisor. Does not apply to lessons taken to fulfill instrumental methods or piano proficiency requirements. Repeatable for credit.

**MUSP 390** 1 F, W, S

**Junior Recital**

Required of performance emphasis majors in the junior year. Minimum of 30 minutes.

**MUSP 489** 1 F, W, S

**Senior Recital**

Required of music-education emphasis and B.S. music majors, the final quarter of lessons culminates in this recital. (See MUED 489 for exception.) Minimum of 30 minutes.

**MUSP 490** 1 F, W, S

**Senior Recital: Emphasis Major**

Required of performance emphasis majors, the final quarter of lessons culminating in this recital. Minimum of 60 minutes.

**MUSP 495** 1-3 Arranged  
**Independent Study in Performance**

Advanced, independent research project in solo and ensemble literature and pedagogy for the major instrument. Requires approval of department chair. Repeatable to a maximum of 3 credits.

## Music Theory

### LOWER-DIVISION COURSES:

**MUTH 121+122+123** 3+3+3 F+W+S  
**Theory I**

An integrated study of the parameters of music within a wide spectrum of cultures and historical periods. Exploration of the simpler forms and textures. Introduction to composition and arranging in vocal and instrumental applications. Must be taken in sequence.

**MUTH 121L+122L+123L**  
**Theory I Laboratory** 1+1+1 F+W+S

Exercises in sight-singing, dictation, and keyboard skills. Meets two days a week. Taken in conjunction with MUTH 121+122+123.

**MUTH 221+222+223** 3+3+3 F+W+S  
**Theory II**

Advanced study of musical parameters begun in Theory I. Movement toward more complex forms and textures. Must be taken in sequence. Prerequisites: MUTH 121+122+123.

**MUTH 221L+222L+223L**  
**Theory II Laboratory** 1+1+1 F+W+S

Exercises in sight-singing, dictation, and keyboard skills. Meets two days a week. Taken in conjunction with MUTH 221+222+223.

**MUTH 224** 1 F  
**Music Technology: Notation**

Fundamentals of music notation and desktop publishing using Finale. Presented through hands-on laboratory sessions. Prerequisite: MUTH 122.

**MUTH 225** 2 W

**Music Technology:  
Editing & Synthesis**

Fundamentals of music recording, editing, and synthesis using industry standard software. Presented through lectures and hands-on laboratory sessions. Prerequisite: MUTH 122.

### UPPER-DIVISION COURSES:

**MUTH 331** 3 F

**Orchestration**

Technical aspects and sound qualities of instruments. Arranging for a variety of instrumental groups. Prerequisite: MUTH 123. Even years.

**MUTH 332** 3 W

**Counterpoint**

Basic contrapuntal principles as generally illustrated in music of various historical styles. Prerequisite: MUTH 123. Even years.

**MUTH 431** 3 S

**Form and Analysis**

Form and structure of music from plainchant to the present. Prerequisite: MUTH 123. Even years.

**MUTH 432** 1 F, W, S

**Composition**

Composing the smaller forms of music for a variety of vocal and instrumental combinations. Repeatable for credit. Open to music majors and to others by permission of the instructor. Prerequisite: MUTH 123.

**MUTH 495** 1-3 Arranged  
**Independent Study**

Advanced independent project in composition or theory. Requires approval of the department chair. Three hours maximum.



## Faculty

*Shana Ruggenberg, Chair*

*Bonnie Baer, Lance Bain, Susan Bussell, Beverly Glover, Levi Gore, Joan Hughson, Roxanne Josse, Helene Linzau, Doris Morgan, Gladys Muir, Laurie Parson, Liss Poiret, Kathryn Schneider, Donna Stretter, Tamara Tirado, Debbie Winkle*

*James Robertson, Emergency Services Program Coordinator*

*Vicki Saunders, Health Sciences Program Coordinator*

*Departmental Office: 116 Davidian Hall; 965-7262*

## Degrees and Programs

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The faculty of the NURSING AND HEALTH SCIENCES DEPARTMENT is committed to providing a broad, liberal and professional education to a diverse population of traditional and adult students in multiple settings. This task is undertaken in a climate of Christian service, dedicated to the development of the whole person, and designed to serve the health needs of individuals, families, and the community at large. The curriculum and activities of the nursing and health sciences programs are planned in harmony with the mission of the college and of the Seventh-day Adventist Church, which it represents. The department offers a variety of programs.

Persons considering a career in nursing or the health sciences are encouraged to include in their general education program courses in medical terminology, computer skills, and Spanish or the language of any Pacific Rim country.

The A.S. in Emergency Services prepares students for the position of emergency medical technician (EMT) as well as other positions in related fields such as offices of emergency services and firefighting. Students who wish to continue their education upon completion of the program are academically prepared to enter paramedic school. Training includes vocational certifications in CPR, incident command, emergency vehicle operations, and emergency medical technician.

The A.S. in Health Sciences is a general studies degree with an emphasis on the life and social sciences. This degree is appropriate for students with an interest in one of the allied health professions. Advising and curriculum is offered for students who wish to select a pre-professional program in conjunction with the A.S. in Health Sciences.

Two nursing degrees are offered: the Associate of Science (A.S.) and the Bachelor of Science in Nursing (B.S.N.). The A.S. degree is available in a traditional format on the main campus in Angwin and in a non-traditional LVN to RN format at Travis Air Force Base in Fairfield. The B.S.N. degree is available as an RN to B.S.N. program in a non-traditional format on the main campus in Angwin. Both the LVN to RN and the RN to B.S.N. programs may be offered at other select sites; contact the department for more information.

Pacific Union College is a member of the National League for Nursing. Both the A.S. in Nursing and the B.S.N. programs are accredited by the National League for Nursing Accrediting Commission.

Questions and comments may be directed in writing to:  
National League for Nursing Accrediting Commission  
3343 Peachtree Rd, N.E., Suite 500  
Atlanta, GA 30326

By telephone the NLNAC can be reached at:  
(800) 669-1656

# Nursing and Health Sciences

## Major in Emergency Services, A.S.

A minimum of 49.5 hours

### ► Required Core Courses (26.5 hours):

EMER 101	Emergency Medical Responder	3
EMER 104-105	Emergency Medical Technician	4-4
EMER 155	Fundamentals of Incident Command	2
EMER 180	Fundamentals of Technical Rescue	3
EMER 225	Public Health for EMS	3
EMER 235	Emergency Vehicle Operation	2
EMER 255	Emergency Scene Management	3
EMER 273	Emergency Medical Practicum	2
EMER 396	Emergency Services Seminar	.5

### ► Required Cognate Courses (23 hours):

BIOL 101	Human Anatomy	5
BIOL 102	Human Physiology	5
BIOL 223	Medical Terminology	2
PSYC 260	Death and Dying	4

At least one of the following courses:

ANTH 124	Cultural Anthropology (4)	4
SOCI 121	Introduction to Sociology (4)	
SOCI 232	American Social Problems (4)	

At least one of the following courses:

SPAN 105	Span/Health Professionals: Basic (3)	3
SPAN 205	Span/Health Professionals: Intermediate (3)	

### Recommended Electives

EMER 280	Technical Rescue and Survival (3)
NURS 212	Pharmacology (3)

### Practical Experience

Students are encouraged to gain practical experience while in the Emergency Services program. Working as an EMT or emergency department technician provides experience as well as income. Volunteer opportunities are available through the local fire department and the ambulance company. Both organizations are largely staffed by college students and provide extra-curricular training as well as a way to serve the community. Many volunteer firefighters and EMTs from Angwin have used their training and experience to transition into paid positions.

### Clinical Courses

Students must meet the following requirements prior to registration for Emergency Services clinical courses:

1. Current California or National Registry of EMT certificate.
2. Documentation showing current certification in cardiopulmonary resuscitation for healthcare professionals.

Certification must be either AHA BLS Healthcare Provider (preferred) or Red Cross Professional Rescuer.

3. Health documents on file with Student Health Services indicating required immunization and evidence of negative tuberculosis skin test within the last twelve months or appropriate radiologic documentation.
4. Successful completion of an acceptable criminal background check administered by a PUC contracted, independent agency. Results of the check are reviewed by the Program Director and maintained in a confidential location. Background checks that yield results potentially unacceptable to clinical agencies will be evaluated on a case-by-case basis. If a clinical agency does not accept a student on the basis of a background check and if the clinical requirements of the degree cannot be met, the student may not be allowed to continue in the Emergency Services Program.

### Pre-Allied Health Programs

Advising and curriculum is offered for students who wish to select one of the following pre-professional programs for admission to Loma Linda University in conjunction with the A.S. in Health Sciences:

- Pre-Clinical Laboratory Science (96 hours)
- Pre-Communication Sciences & Disorders (96 hours)
- Pre-Cytotechnology (98 hours)
- Pre-Dental Hygiene (96 hours)
- Pre-Health Information Administration (96 hours)
- Pre-Medical Radiography (42 hours)
- Pre-Nutrition & Dietetics (100 hours)
- Pre-Occupational Therapy (96 hours)
- Pre-Physical Therapy (138 hours)
- Pre-Physical Therapy Assisting (48 hours)
- Pre-Radiation Sciences (96 hours)
- Pre-Respiratory Care (82 hours)

The requirements for the degree overlap significantly with the requirements for the pre-professional programs listed above. With appropriate planning, students pursuing pre-professional programs of 96 or more hours will be able to select coursework to meet both the pre-professional requirements and the degree requirements within the allotted hours. Students pursuing shorter pre-professional programs may also choose to complete the degree, but they likely will need to spend additional time at Pacific Union College to complete the requirements.

Students who wish to pursue admission to a pre-professional program at an institution other than Loma Linda University may be able to design a curriculum to meet their needs as well.

Admissions to these programs is competitive. Completion of the pre-professional requirements and/or the A.S. degree at

Pacific Union College does not guarantee admission to any pre-professional program.

Students are advised to consult with the Health Sciences advisor for additional information regarding the A.S. in Health Sciences and the pre-Allied Health programs.

**Major in Health Sciences, A.S.**

*A minimum of 61 hours*

**► Required Core Courses (38-39 hours):**

HLTH 101	Introduction to Allied Health Professions	2
HLTH 201	Issues in Allied Health Professions	2

**Science and Mathematics**

*At least 20 hours from the following courses* 20  
*Include courses from at least 2 separate areas*

*Area 1: Biology*

BIOL 101	Human Anatomy (5)
BIOL 102	Human Physiology (5)
BIOL 111	Biological Foundations (5)
BIOL 112	Biological Foundations (5)
BIOL 113	Biological Foundations (5)
BIOL 223	Medical Terminology (2)
MICR 134	General Microbiology (5)

*Area 2: Chemistry*

CHEM 101	Intro to Chemistry (4)
CHEM 102	Survey of Organic Chemistry (4)
CHEM 103	Survey of Biochemistry (4)
CHEM 111	General Chemistry (5)
CHEM 112	General Chemistry (5)
CHEM 113	General Chemistry (5)
CHEM 371	Organic Chemistry (4)
CHEM 372	Organic Chemistry (4)
CHEM 373	Organic Chemistry (4)

*Area 3: Mathematics & Statistics*

MATH 106	College Algebra (4)
MATH 130	Precalculus (5)
MATH 131	Calculus I (4)
STAT 222	Introduction to Statistics (4)

*Area 4: Physics*

PHYS 105	Introduction to Physics (5)
PHYS 111	General Physics (4)
PHYS 112	General Physics (4)
PHYS 113	General Physics (4)

**Social Science**

*At least 12 hours from the following courses* 12  
*Include courses from at least 2 separate prefixes*  
 ANTH 124 Cultural Anthropology (4)

ECON 261	Macroeconomics (4)
ECON 265	Microeconomics (4)
GEOG 210	World Regional Geography (3)
PLSC 124	Intro to American Govt (3)
PSYC 121	General Psychology (4)
PSYC 234	Human Development (4)
SOCI 121	Introduction to Sociology (4)
SOCI 214	The Family (4)
SOCI 355	“Racial” & Ethnic Relations (3)

**Health**

*At least one of the following courses:* 2-3  
 FDNT 235 Nutrition (3)  
 HLED 162 Fitness for Life (2)  
 HLED 166 Health Education (2)

**► Required Cognate Courses (23 hours):**

ENGL 101+102	College English	4+4
RELT 216	Intro to Christian Ethics	3

**Humanities**

*At least 12 hours from the following courses* 12  
*Include courses from at least 3 separate areas*

*Area 1: Art*

ARTH 115	History of Western Art I (4)
ARTH 116	History of Western Art II (4)

*Area 2: History*

HIST 101	History of World Civilizations (4)
HIST 102	History of World Civilizations (4)
HIST 134	History of the United States (4)
HIST 135	History of the United States (4)

*Area 3: Literature*

ENGL 212	Shakespeare in Performance (2-3)
ENGL 301	Great Books (4)

*Area 4: Modern Languages*

CHIN 111	Beginning Chinese I (4)
FREN 111	Beginning French I (4)
GRMN 111	Beginning German I (4)
ITAL 111	Beginning Italian I (4)
SPAN 105	Spanish for Health Care Prof: Basic (3)
SPAN 111	Beginning Spanish I (4)
SPAN 205	Spanish for Health Care Prof: Intermediate (3)

*Area 5: Music*

MUHL 105	Survey of Music (3)
MUHL 245	World Music and Culture (3)

*Area 6: Philosophy*

PHIL 101	Introduction to Philosophy (4)
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## Major in Nursing, A.S.

The mission of the Associate of Science degree program in Nursing is to prepare students to provide competent nursing care for individuals of all ages by utilizing the nursing process, while functioning in the role of the associate degree nurse in the context of Christian faith and human service. This mission is fulfilled by providing quality nursing education guided by the Nursing Program's philosophy.

### ► Admission Requirements:

Admission requirements are those published in the General Catalog in effect during the year of the student's admission to the Nursing Program. The Nursing and Health Sciences Department reserves the right to admit or deny admission to individuals applying to the Nursing Program.

1. Admission is competitive and candidates are evaluated based on:
  - a) Complete prerequisite courses with a grade of C or better in each course:
    - i. A full year of Algebra II at the secondary level or completion of MATH 096.
    - ii. A full year of Chemistry or Physics at the secondary level or completion of CHEM 101 or PHYS 105.
    - iii. ENGL 101 College English (4).
    - iv. BIOL 101 Human Anatomy (5) or BIOL 102 Human Physiology (5).
    - v. NURS 110 Introduction to Nursing (2).
  - b) College GPA calculated on cognate and GE courses required for the A.S. nursing degree. The minimum GPA for nursing admission is 2.7. Preference will be given to those with GPAs above 3.0 and to those who have completed at least 12 units of nursing cognate courses at Pacific Union College.
    - i. Each course must be passed with a C or better.
    - ii. Applicants will not be considered for admission if they have repeated more than two cognate or GE courses, or repeated any course more than once.
  - c) ACT English test score of 19 or better.
  - d) TEAS (Test of Essential Academic Skills) total score at the Proficient Level or better. Preference is given to those with a score at the Advanced or Exemplary Level.
  - e) Other factors (see A.S. Nursing Application Packet).
2. Applicants must submit an application for admission to the Nursing and Health Sciences Department accompanied by the application fee of \$30. The nursing application also

serves as application to the college. Application and readmission packets are available at the department office and website: [www.puc.edu/nursing](http://www.puc.edu/nursing).\*

The application process begins with submission of the application form; completion of prerequisite requirements and submission of each of the following completes the process:

- a) Personal essay.
- b) Official academic transcripts from each college previously attended.
- c) Two acceptable professional/academic references. *Recommendations written by relatives and those presented directly to the Nursing and Health Sciences Department by the applicants themselves are not acceptable.*
- d) Documentation showing current certification in cardiopulmonary resuscitation for healthcare professionals through AHA BLS Healthcare Provider.
- e) Health documents (see Nursing and Health Sciences Department for details on acceptable documentation):
  - i. Report of a full physical examination within 12 months of admission that indicates acceptable health.
  - ii. Evidence of immunity to measles (rubeola), mumps, rubella, and varicella, verified by titer or immunization.
  - iii. Evidence of immunity to Hepatitis B, verified by titer or by documentation of immunization series in progress. Series should be started upon acceptance into the program if not previously initiated.
  - iv. Evidence of negative tuberculosis skin test following a two-step process, started upon acceptance into the program, or appropriate radiologic documentation.

*Health and safety requirements may change without notice according to clinical facility requirements.*

3. The Admissions Committee may request that the applicant participate in an admissions interview; applicants may also request an admissions interview.

After the applicant has completed all admissions requirements, the application will be processed according to program

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\* RN licensure may be denied for crimes, abusive behavior, or any illegal acts that are substantially related to the practice of nursing. Before applying to the Nursing Program, any applicant who has ever been convicted of a crime should ask for a copy of the Board of Registered Nursing Regulations Relating to Denial of Licensure, available at the department office or online at [www.rn.ca.gov](http://www.rn.ca.gov).

application deadlines and the student notified in writing of the action taken. *See A.S. Nursing Application Packet.*

► **Readmission Procedure for Nursing:**

Students who withdraw from the program in good academic standing may apply for readmission as follows:

1. Submit a completed readmission application to the Nursing and Health Sciences Department. (Readmission packets are available at the department office.)
2. Demonstrate adequate nursing knowledge for readmission:
  - a) Students requesting readmission after an absence of one through three years will be required to validate their current knowledge of nursing at the level of the last nursing course completed. Definitions of current requirements are available at the department office.
  - b) Students requesting readmission after an absence of more than three years will be required to validate their current nursing knowledge for each nursing course they have completed.
  - c) Knowledge validation results determine appropriate course-level placement.
  - d) A per-hour fee is charged for knowledge validation testing.
3. Meet all other “Requirements for Continuation In and Graduation from the Associate Degree Program in Nursing”

The Admissions Committee may request that an applicant participate in an admissions interview; applicants may also request an admissions interview. After the applicant has met all readmission requirements, the application will be processed and the student notified in writing of the action taken. Readmission is on a space-available basis and is not guaranteed. Because of enrollment limitations in clinical sections, students may experience delays of one or more quarters before readmission to the program.

Students who fail a core nursing course may apply for readmission according to the “Readmission Procedure for Nursing”. Failure is defined as:

- a) Receiving a grade below a C (2.0).
- b) Withdrawing for failing performance.

The following additional requirements must be met for readmission:

1. Students must identify problem areas that resulted in their failure.

2. Students must show evidence for potential success by having corrected identified problem areas.
3. Students are limited to one clinical nursing course repeat in the program, including withdrawals for failing performance.
4. Students are limited to one non-clinical nursing course repeat in the program, including withdrawals for failing performance. Non-clinical nursing courses are NURS 212, 235, 326, and 390.

► **Transfer, Challenge, and Waiver Options:\***

Applicants wishing to transfer, challenge or waiver must meet the same admission or readmission requirements as generic students. Applicants may establish additional academic credit for acquired knowledge through challenge examinations or other methods of evaluation. Applicants meeting admission and degree requirements through transfer, challenge, or waiver have the same access as any other applicant for open space in clinical nursing courses.

Requests for admission by transfer from another nursing program are evaluated on an individual and space-available basis. Transfer courses must be equivalent to the courses in the Pacific Union College generic program. Eligible applicants must meet the same admission and continuation requirements as for the A.S. degree.

Applicants may have previous coursework, knowledge, and skills evaluated to validate their current level of knowledge. Knowledge validation in nursing is available to evaluate:

1. Applicants transferring from another program for educating registered nurses.
2. Applicants transferring from programs educating licensed vocational nurses.
3. Applicants having developed skills during previous employment, that are similar to those expected of students in required nursing courses.

The options available for LVNs, or eligible applicants who have passed the designated LVN equivalence test and wish to meet requirements to take the California licensure examination for registered nurses, are as follows:

1. Advanced-Placement A.S. option (Angwin campus): Applicants are given credit for first-year nursing courses. Required nursing courses include NURS 221, 222, 254, 255,

\* *Specific information and materials about transfer, challenge, waiver, and the 30-semester/45-quarter unit option are available in the Nursing and Health Sciences Department and will be sent upon request.*

256, 325, and 326. Applicants must meet the same admission and continuation requirements as for the A.S. degree with the following changes:

- a) Applicants must have had at least one year of acute, direct, patient care experience within the previous 5 years.
  - b) Introduction to Nursing (NURS 110) is not required.
2. LVN to RN A.S. option: This program is offered at select off-campus sites. Intensive theory core weeks are conducted at regular intervals throughout each term for the nursing courses. Clinical hours are scheduled to allow working LVNs to meet their employment commitments. Required nursing courses are the same as previously described under the Advanced-Placement A.S. option. Applicants must meet the same admission and continuation requirements as for the A.S. degree with the following changes:
- a) Applicants must have had at least one year of acute, direct, patient care experience within the previous 5 years.
  - b) Applicants must have completed a minimum of 16 college quarter units (10.6 semester units), including BIOL 101, 102 and MICR 134.
  - c) Introduction to Nursing (NURS 110) is not required.
  - d) Chemistry is not required.
3. 30-semester/45-quarter unit option: This option does not earn a degree in nursing from Pacific Union College. Required courses are MICR 134, BIOL 102, NURS 221, 222, 254, and 325 only. Applicants desiring this option are not subject to any evaluative processes for admission. An RN license obtained through this nondegree option is not recognized in all states and those electing this option may encounter difficulty articulating into B.S. nursing programs. Applicants are advised to carefully research the limitations of this option.

### ► *Transportation Policies:*

Students are expected to provide their own transportation to, during, and from off-campus clinical labs. Faculty will not provide transportation. Students are advised not to transport clients in their own vehicles under any circumstances. This policy protects both the client and the student. State law requires proof of automobile liability insurance.

### ► *Course Evaluations:*

Each clinical nursing course is composed of both theory and clinical hours as reflected in the course description. Passing a clinical course and progressing to the next nursing course

requires passing grades in both the theory and clinical components. If the clinical portion of a course is failed, a grade of F is recorded for the entire course. See the Clinical Evaluation Policy in the A.S. Nursing Student Handbook.

### ► *Requirements for Continuation in and Graduation from the Associate Degree Program in Nursing:*

1. Compliance with all policies and procedures in the A.S. Nursing Student Handbook.
2. A clear background check and drug screen are required of all students upon entry into the program and prior to participating in required clinical experiences. Students are responsible for all costs associated with criminal background check and drug screening (paid for through student fees). Both the criminal background check and the drug screen must be completed satisfactorily as determined by the Nursing Program. Results are reviewed by the Department Chair. Results of the drug screening will not be disclosed by the Nursing Program to third parties except as may be necessary or appropriate to substantiate the Program's actions or processes or as otherwise required by law (e.g. subpoena or public safety). Drug screens must be clear. Background check results that are potentially unacceptable to clinical agencies will be evaluated with the student and the clinical agency on a case-by-case basis. If an agency does not accept a student on the basis of background check or drug screen results, the program has no responsibility for arranging alternate clinical placements and the student will not be allowed to continue in the Nursing Program if clinical requirements of the courses cannot be met.
3. Current malpractice insurance, paid for by student fees.
4. Documentation showing current certification in cardiopulmonary resuscitation for healthcare professionals through AHA BLS Healthcare Provider.
5. Acceptable physical and mental health, and demonstration of compliance with all clinical clearance requirements. See the Board of Registered Nursing Guidelines on substance abuse and mental illness, available at the department office.
6. A minimum grade of C (2.0) in the required nursing, cognate, and general education courses.
7. No more than one clinical nursing course repeat and one non-clinical nursing course repeat allowed. Non-clinical nursing courses are NURS 212, 235, 326, and 390. A second failure in either a clinical or a non-clinical course results in the student being permanently dropped from the program.



8. Completion of all general education and cognate requirements before entering the second year of the A.S. curriculum. Exceptions must be petitioned to the Nursing Admissions Committee. This requirement does not apply to the LVN to RN program.
9. Completion of all standardized tests administered as part of nursing curriculum.
10. Satisfactory completion of the requirements for the A.S. Degree in Nursing as specified in the current *General Catalog*.

**Major in Nursing, A.S.**

*A minimum of 99 hours included in the major and cognates.*

► **Required Core Courses (70 hours):**

NURS 121	Nursing I	6
NURS 124	Nursing II	6
NURS 125	Nursing III	6
NURS 212	Pharmacology	3
NURS 221	Nursing IV	6
NURS 222	Nursing V	6
NURS 235	Health Assessment	4
NURS 254	Mental Health Nursing	6
NURS 255	Pediatric Nursing	5
NURS 256	Maternal-Newborn Nursing	6
NURS 325	Nursing VI	9
NURS 326	Management and Professional Practice	3
NURS 390	Pathophysiology	4

► **Required Cognate Courses (29-30 hours):**

BIOL 101	Human Anatomy	5
BIOL 102	Human Physiology	5
FDNT 235	Nutrition	3
MICR 134	General Microbiology	5
PSYC 121	General Psychology	4
PSYC 234	Human Development	4

*At least one of the following courses:* 3-4

ANTH 124	Cultural Anthropology (4)	
NURS 376	Nursing Issues: Transcultural Care (3)	
SOCI 121	Introduction to Sociology (4)	
SOCI 214	The Family (4)	
SOCI 232	American Social Problems (4)	
SOCI 355	“Racial” and Ethnic Relations (3)	

► **General Education Requirements (16-29 hours):**

**Written and Oral Communication**

ENGL 101	College English	4
<i>At least one of the following courses:</i> 3		
COMM 105	Introduction to Communication (3)	
COMM 226	Public Speaking (3)	

**Math and Science**

*At least one of the following options:* 0-8

A full year of Algebra II with semester grades of C or better from an accredited secondary institution

Approved algebra waiver exam  
MATH 095+096 Basic Algebra I+II (4+4)

*At least one of the following options:* 0-5

A full year of Chemistry or Physics with semester grades of C or better from an accredited secondary institution

CHEM 101 Introductory Chemistry (4)  
PHYS 105 Introduction to Physics (5)

**Religion**

*Take at least 9 hours of religion coursework* 9

*These 9 hours must include:*

At least 6 hours from RELB and/or RELT courses.  
Completion of sections A, B, C, and D listed below.

*A. Prerequisite:*

*One of the following options:*

Two full years of Christian religion courses with semester grades of C- or better at an accredited secondary institution  
Successful completion of a waiver exam administered by the Religion Department

RELT 105 Introduction to the Bible (3)

This requirement is a prerequisite to all other religion courses and must be completed within the first two quarters of enrollment at Pacific Union College.

*B. Encountering Jesus:*

RELB 150 Encountering Jesus (3)

This requirement is a prerequisite to all other religion courses (except RELT 105) and must be completed within the first year of enrollment at Pacific Union College.

*C. Understanding Christian Faith and Foundations:*

Take an elective course from RELB, RELH, RELP, or RELT. (Note- students required to take RELT 105 to meet section A above may apply the course to this requirement.)

*D. Exploring Seventh-day Adventist Life and Thought:*

*One of the following courses*

RELH 235 Life and Ministry of Ellen White (3)

RELH 360 Adventist Heritage (4)

RELP 351 Ministry of Healing (3)

RELT 220 Seventh-day Adventist Beliefs (3)

RELT 335 Theology of the Sanctuary (3)

RELT 336 Current Issues in Seventh-day Adventism (3)

RELT 337 Last Day Events (3)

RELT 338 The Sabbath (3)

### **Bachelor of Science in Nursing, B.S.N. (Second-Step Program in Nursing)**

The mission of the Bachelor of Science in Nursing Program is to prepare registered nurses for professional practice within a broad liberal education in a context of Christian faith and human service. This mission is fulfilled by providing quality nursing education guided by the Nursing Program's philosophy.

This upper-division program for registered nurses leading to the Bachelor of Science in Nursing degree is designed to articulate with a two-year associate degree program. A registered nurse graduate of an Associate Degree program often will have completed most of the nursing prerequisites for the program. Prior nursing credit of associate degree or diploma program graduates will be evaluated and appropriate credit given.

A student enrolled in full-time study may sequence general education and nursing courses to complete degree requirements in three to six quarters. A flexible class schedule helps to accommodate the needs of those with limited access to nursing programs or who are unable to coordinate with traditional baccalaureate programs.

#### ► **Admission Requirements:**

Admission requirements are those published in the General Catalog in effect during the year of the student's admission to the Nursing Program. The Nursing and Health Sciences Department reserves the right to admit or deny admission to individuals applying for admission to the Nursing Program.

1. In addition to the requirements for admission to the college, the following criteria must be met:
  - a) Completion of an associate degree, or equivalent, in nursing.
  - b) Completion of the required cognates for the A.S. degree in Nursing.
  - c) Applicants must be able to demonstrate a feasible plan for completion of general education courses at a time consistent with completion of courses in the major. Students accepted for full-time enrollment in the fall quarter will lack no more than 6-8 hours of required general education (GE) courses; for winter or spring quarters the applicant will lack no more than 12 hours of GE. For part-time enrollment the applicant will lack no more than 24 hours of GE.
  - e) An RN license is required in order to register for any practicum course and its corequisite courses if applicable. The practicum courses are NURS 432, NURS 462, and NURS 389 (under the practicum subtitle).

2. Applicants must submit an application for admission to the Nursing Program. Application packets are available at the department office and website: [www.puc.edu/nursing](http://www.puc.edu/nursing).
3. The Admissions Committee may request that the applicant participate in an admissions interview; applicants may also request an admissions interview.

After the applicant has completed all admissions requirements, the application will be processed according to program application deadlines and the student notified in writing of the action taken. See *B.S.N. Nursing Application Packet* for details.

#### ► **National Specialty Certifications**

Students transferring into the Bachelor of Science in Nursing Program with previously earned national specialty certifications should apply to the Department Chair for credit at the time of admission to the program. National specialty certifications include those requiring a documented number of years/hours of work in the specialty and a standardized exam; see the Nursing and Health Sciences Department for a list of recognized certifications.

Credit is granted subject to the approval of the Department Chair in conjunction with the Records Office. Students with recognized certifications typically receive credit for NURS 389 Special Topics: Nursing Role Specialization Practicum (maximum of 5 quarter credits). In rare cases, a certification program may provide education that closely matches content provided in another upper-division nursing course at Pacific Union College. These situations will be considered for credit and course equivalencies on a case-by-case basis.

In order to receive credit, students must provide the Nursing and Health Sciences Department with documentation providing evidence of the approved national certification. Grades issued in recognition of national specialty certification are recorded as "S" (Satisfactory).

#### ► **Transportation Policies:**

See transportation policies listed under the A.S program.

#### ► **Clinical Placement:**

Clinical placement is evaluated and approved by the nursing faculty.

#### ► **Requirements for registration for clinical courses:**

1. Current California RN license.
2. Documentation showing current certification in cardiopulmonary resuscitation for healthcare professionals through AHA BLS Healthcare Provider.
3. Proof of current malpractice insurance.

4. Health documents (see the B.S.N. Nursing Application Packet and the B.S.N. Student Handbook for details on acceptable documentation):
  - a) Report of a full physical examination within the past 12 months that indicates acceptable health.
  - b) Evidence of immunity to measles (rubeola), mumps, rubella, and varicella- verified by titer or immunization.
  - c) Evidence of negative tuberculosis skin test within the last twelve months or appropriate radiologic documentation.
  - d) Hepatitis B immunization series is highly recommended.
5. A clear background check and drug screen are required of all students. Students not progressing directly from the PUC A.S. program into the B.S.N. program (without a gap in enrollment) must complete the screening upon entry into the B.S.N. and prior to participating in required clinical experiences. Students are responsible for all costs associated with criminal background check and drug screening. Results are evaluated and acted upon as described for the A.S. program.

► **Air Force ROTC**

Air Force Reserve Officer Training Corps (Air Force ROTC) is available to Pacific Union College students through California State University, Sacramento. ROTC coursework is completed on the CSU Sacramento campus. Upon completion of ROTC requirements and coursework necessary for the degree objective (e.g., B.S.N. in Nursing), cadets are commissioned as an officer in the US Air Force. Because of the firm scheduling requirements of the ROTC program, students should work closely with their academic advisor and the AF ROTC unit in planning their academic program. Air Force ROTC scholarships are available to qualified students. Contact the unit admissions officer in the Aerospace Studies Department at CSU Sacramento, telephone 916-278-7783, for information on the program.

► **Academic Requirements for Continuation in and Graduation from the Second-Step Program in Nursing:**

1. The B.S.N. cognate and general education requirements are outlined below. The general requirements for a baccalaureate degree are outlined in the section entitled “The Baccalaureate Degree Program” in this catalog.
2. Students who receive a grade lower than a C- in a nursing course must repeat the course. Students are limited to a total of two nursing-course repeats in the program, including withdrawals for failing performance, with no course repeated more than once.

**Bachelor of Science in Nursing, B.S.N.**

*A minimum of 76 hours (39 upper-division hours) included in the major and cognates. All courses are to be selected in consultation with the nursing faculty advisor. Each practicum must be taken concurrently with the appropriate theory course.*

► **Required Core Courses (43-48.5 hours):**

NURS 390	Pathophysiology	4
NURS 431	Community Health Nursing	4
NURS 432	Community Health Nursing Practicum	3
NURS 460	Health Care Education	4
NURS 461	Health Care Management	4
NURS 462	Health Care Mgmt/Educ Practicum	3
NURS 485	Introduction to Nursing Research	4
NURS 490	B.S.N. Capstone I	0.5-1
NURS 491	B.S.N. Capstone II	0.5

*At least one of the following courses:*

NURS 235	Health Assessment (4)	
NURS 335	Advanced Health Assessment (4)	

*At least one of the following courses:*

NURS “Special Topics” courses	3-5
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*At least three of the following courses:*

NURS “Nursing Issues” courses	9-12
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► **Required Cognate Courses (33-34 hours):**

BIOL 101	Human Anatomy	5
BIOL 102	Human Physiology	5
CHEM 101*	Introductory Chemistry	4
FDNT 235	Nutrition	3
MICR 134	General Microbiology	5
PSYC 121	General Psychology	4
PSYC 234	Human Development	4

*At least one of the following courses:*

ANTH 124	Cultural Anthropology (4)	3-4
NURS 376	Nursing Issues: Transcultural Care (3)	
SOCI 232	American Social Problems (4)	
SOCI 355	“Racial” and Ethnic Relations (3)	

► **General Education Requirements for the B.S.N. (47-57 hours):**

*See next page*

\* Students who have already completed a non-credit CHEM 101 equivalency may substitute CHEM 102 (or any other higher level CHEM course) for this requirement.

# Nursing and Health Sciences

## ► General Education Requirements for the B.S.N.:

### Written and Oral Communication

ENGL 101+102	College English	4+4
<i>At least one of the following courses:</i>		3
COMM 105	Introduction to Communication (3)	
COMM 226	Public Speaking (3)	

### Math and Science

<i>At least one of the following options:</i>		0-8
A full year of Algebra II with semester grades of C or better from an accredited secondary institution		
Approved algebra waiver exam		
MATH 095+096	Basic Algebra I+II (4+4)	
STAT 222	Introduction to Statistics	4

### History and Humanities

<i>At least 8 hours from the following:</i>		8
History courses		
<i>At least two courses from the following:</i>		6-8
Courses must come from at least 2 different areas		

#### Area 1. Literature

ENGL 210	Bay Area Theater (3)
ENGL 211	Survey of Drama (4)
ENGL 212	Shakespeare in Performance (2-3)
ENGL 223	British Literature Survey (4)
ENGL 301	Great Books (4)

#### Area 2. Visual Arts

ARTH 107	America in Art (3)
ARTH 115	History of Western Art I (4)
ARTH 116	History of Western Art II (4)
ARTH 278	Women in Art (3)

#### Area 3. Music

MUHL 105	Survey of Music (3)
MUHL 245	World Music and Culture (3)

#### Area 4. Philosophy

PHIL 101	Introduction to Philosophy (4)
Any other course with a PHIL prefix	

#### Area 5. Language & Culture

CHIN 111	Beg Chinese I- Language & Culture (4)
FREN 111	Beg French I- Language & Culture (4)
GRMN 111	Beg German I- Language & Culture (4)
ITAL 111	Beg Italian I- Language & Culture (4)
SPAN 105	Span/Health Professionals: Basic (3)
SPAN 111	Beg Spanish I- Language & Culture (4)
SPAN 205	Span/Health Professionals: Intermediate (3)

## Religion

*Complete the religion requirement for the A.S. in Nursing:* 9\*

*At least 9 additional hours of religion coursework:* 9\*\*

These 9 hours must include:

At least 3 additional hours of RELB and/or RELT courses

At least 6 upper-division hours

At least one course each from sections A and B below

### A. Building Scriptural Foundations:

*Specialized Option for B.S.N. (recommended)*

RELB 341 Jesus as Healer (2-3)

*Other Options*

RELB 200 Methods of Bible Study (3)

RELB 225 Books of Moses (3)

RELB 230 Psalms and Wisdom Literature (3)

RELB 250 Parables of Jesus (3)

RELB 260 Heroes and Villains (3)

RELB 265 Kings and Conquests (3)

RELB 270 Acts of the Apostles (3)

RELT 105 Introduction to Christianity (3)

RELT 205 Christian Beliefs (3)

RELT 235 Spiritual Formation (3)

### B. Integrating Faith and Life:

*Specialized Options for B.S.N. (recommended)*

RELP 346 Spiritual Care for Patients (2-3)

RELT 345 Christian Ethics/ Patient Care (2-3)

*Other Options*

RELB 315 Biblical Ethics (3)

RELP 210 Creative Worship (3)

RELP 235 Sharing Your Faith

RELP 350 Studies in Christian Ministry (3)

RELT 216 Introduction to Christian Ethics (3)

RELT 240 Eco-theology (3)

RELT 330 The Christian and the Media (3)

RELT 355 Christian Ethics in Society (3)

RELT 440 Christian Bioethics (3)

## ► Electives for the B.S.N.:

Additional coursework as necessary to complete 192 hours total and 60 upper-division hours total to meet the baccalaureate degree requirements. Students may take additional Nursing Issues and Special Topics courses if upper-division hours are needed.

\* Upon request, this requirement will be waived for transfer students who earned an associates degree in nursing at another institution.

\*\* Upon request, this requirement will be reduced to 6 hours for students who transfer at least 128 hours from non-Adventist institutions. The reduced requirement must be completed at Pacific Union College.

## Emergency Services

### LOWER-DIVISION COURSES:

#### **EMER 101** **3 F** **Emergency Medical Responder**

The scope and practice of the EMS personnel at the different levels of certification/licensure. Topics include CPR, first aid, incident command, and leadership skills. Upon successful completion of the course, students will receive a California First Responder certificate.

#### **EMER 104-105** **4-4 W-S** **Emergency Medical Technician**

Emergency medical training necessary to provide pre-hospital basic life support to the sick and injured. Meets, in part, the requirements for California EMT certification. Must be 18 years old by course completion to be eligible for certification. Prerequisite: EMER 101 or CPR for the Healthcare Provider. EMER 104 or equivalent is a prerequisite for EMER 105.

#### **EMER 155** **2 F** **Fundamentals of Incident Command**

An introduction to the nationally adopted incident command system, provides the foundation for higher level ICS training. Includes the history, features and principles, and organizational structure of the Incident Command System as well as the relationship between ICS and the National Incident Management System (NIMS).

#### **EMER 180** **3 S** **Fundamentals of Technical Rescue**

An introduction to theory and skills used in technical rescue operations. Focus on the utilization of specialized rescue equipment and the four phases of rescue. Specific topics include PPE, types of rescues, rope construction, life safety knots, self-rescue techniques, patient packaging, anchors and anchor systems, belays, raise and lower systems, mechanical advantage, and pick-offs. Upon successful completion and evaluation, students will receive Rescue 3 International Technical Rope Rescue-Technician (TRR-T) certification. Two lectures and one laboratory per week.

#### **EMER 225** **3 W** **Public Health for EMS**

An overview of the American health system and public health education. Emphasis on the role of the pre-hospital medical provider in public health issues. Topics include disease prevention and treatment and the special concerns associated with the health of children and senior citizens; includes child and elder abuse. Prerequisite: EMER 105 or equivalent.

#### **EMER 235** **2 F** **Emergency Vehicle Operations**

The safe operation of emergency vehicles during all phases of use, including but not limited to emergency response. One lecture and one laboratory per week. Prerequisite: EMER 105 or equivalent and permission of the instructor.

#### **EMER 255** **3 S** **Emergency Scene Management**

Application of the nationally adopted incident command system to emergency scenes. Emphasizes proper use of resources, interfacing with allied agencies, and decision-making under stress. Prerequisite: EMER 105 or equivalent.

#### **EMER 273** **2 F, W, S** **Emergency Medical Practicum**

Application of skills from EMER 105 in a pre-hospital and a hospital setting. Prerequisite: Current EMT certification by the LEMSA. Qualifies for IP grading.

#### **EMER 280** **3 Su** **Technical Rescue and Survival**

Emergency wilderness survival training. Emergency survival techniques necessary to stay alive in the wilderness until rescued, culminating in a 72-hour solo survival exercise. Searching for and rescuing people lost or stranded in the wilderness, including simulated day time and night time rescues for practice in rescuing survivors. Recommended prerequisite: EMER 180.

### UPPER-DIVISION COURSE:

#### **EMER 396** **.5 S** **Emergency Services Seminar**

Single topics of current interest in the emergency medical field presented by guest lecturers.

## Food and Nutrition

### LOWER-DIVISION COURSE:

#### **FDNT 235** **3 F, W, S** **Nutrition**

Principles of nutrition, emphasizing nutritional requirements, dietary sources of nutrients, nutrient utilization, effects of nutrition on energy intake and weight control, fitness, disease prevention, and life cycle.

## Health Sciences

### LOWER-DIVISION COURSES:

**HLTH 101** **2 F, W**  
**Introduction to Allied Health Professions**

Exploration of the spectrum of careers that support health care delivery in the United States. Includes an introduction to health care delivery systems, communication in the health care environment, chart documentation, evidence-based health care, professional ethics, and medical terminology. Designed for students who are planning for a career in health-related areas, particularly the allied health professions.

**HLTH 201** **2 W, S**  
**Issues in Allied Health Professions**

Capstone course that allows the student to reflect and report on current issues in the allied health professions with a focus on their selected allied health career. Includes a project in which the student will demonstrate their knowledge of medical vocabulary, scientific method, clinical ethics, and health care systems. Designed for students in the final year of the A.S. degree in Health Science.

## Nursing

### SERVICE COURSE:

*(Not applicable to a major or minor in this department)*

**NURS 110** **2 F, W, S**  
**Introduction to Nursing**

An overview of the profession of nursing, introducing participants to the philosophy and conceptual framework of the Nursing Programs at Pacific Union College. Addresses the nature of nursing, historical and contemporary influences on nursing, guidelines for nursing practice, health practices and beliefs, and the scope of nursing within the healthcare system. Aims to provide participants with sufficient understanding of the nature and scope of nursing in order to better evaluate its fit with their goals and aptitudes. Required for applicants to the Associate of Science Degree in Nursing.

### LOWER-DIVISION COURSES:

*Note: In addition to the content described in each nursing course, the concepts of aging, communication, pharmacology, and therapeutic nutrition are integrated throughout the curriculum.*

**NURS 121** **6 F, W, S**  
**Nursing I**

Introduces students to basic concepts related to the individual (comfort, elimination, infection, culture and diversity, spirituality) and the profession (clinical decision making, safety, teaching and learning, informatics, legal). Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: Admission to the A.S. Nursing Program, BIOL 101 or 102, CHEM 101 or PHYS 105, ENGL 101, MATH 096, NURS 110.

Corequisite: NURS 235.

**NURS 124** **6 F, W, S**  
**Nursing II**

Reinforces and expands on concepts previously learned and introduces students to concepts related to the individual (homeostasis, metabolism, mobility, tissue integrity, aging, end-of-life care). Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: NURS 121, 235.

Corequisite: NURS 212.

**NURS 125** **6 F, W, S**  
**Nursing III**

Reinforces and expands on concepts previously learned and introduces students to concepts related to the individual (oxygenation, cellular regulation I, perfusion I). Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: NURS 124, 212.

Corequisite: NURS 390.

**NURS 212** **3 F, W, S**  
**Pharmacology**

Introduces students to major classifications of pharmacotherapeutic agents administered to individuals receiving nursing care. An overview of the pharmacokinetics, indications, contra-indications, and drug interactions of commonly used medications provide a basis for safe and effective nursing care. Select concepts related to the individual and profession are addressed as they relate to pharmacology and the nursing role. Students achieve student learning outcomes by integrating new and prior knowledge in the classroom setting.

Three theory units (30 clock hours).

Prerequisites: NURS 121, 235.

Corequisite: NURS 124.

**NURS 221** **6 F, W, S**  
**Nursing IV**

Reinforces and expands on concepts previously learned and introduces students to concepts related to the individual (immunity, inflammation, perfusion II). Students focus on managing care for patients with increasingly complex alterations in health and more fully integrating professional and interpersonal/healthcare concepts into nursing practice. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: NURS 125, 390.

Corequisite: NURS 254.

**NURS 222** **6 F, W, S**  
**Nursing V**

Reinforces and expands on concepts previously learned and introduces students to concepts related to the individual (cellular regulation II, sensory/neuro, critical care). Students focus on managing care for patients with complex alterations in health and fully integrating professional and interpersonal/healthcare concepts into nursing practice. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: NURS 221, 254.

Corequisite: NURS 256.

**NURS 235** **4 F, W, S**  
**Health Assessment**

Introduces students to the nursing profession concept of assessment, including taking a full health history, collecting assessment data, and distinguishing normal from abnormal findings. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom and laboratory settings.

Three theory units (30 clock hours) and one clinical unit (30 clock hours).

Prerequisite: Admission to the A.S. Nursing Program.

Corequisite: NURS 121.

**NURS 254** **6 F, W, S**  
**Mental Health Nursing**

Reinforces and applies concepts previously learned to the mental health setting and introduces students to concepts related to the individual (addiction behaviors, cognition, development, self, grief and loss, mood and affect, stress and coping, violence) and to professional concepts unique to the setting of mental health nursing. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: NURS 125, 390.

Corequisite: NURS 221.

# Nursing and Health Sciences

## **NURS 255**

**5 S**

### **Pediatric Nursing**

Reinforces and applies concepts previously learned to the pediatric setting and introduces students to individual concepts (development, child health and wellness, family) and professional concepts unique to the setting of pediatric nursing. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and two clinical units (60 clock hours).

Prerequisites: Those listed for the appropriate corequisite course.

Corequisite: NURS 125, 221, or 222

## **NURS 256**

**6 F, W, S**

### **Maternal-Newborn Nursing**

Reinforces and applies concepts previously learned to the perinatal setting and introduces students to concepts related to the individual (reproduction, neonatal transitions, sexuality) and to professional concepts unique to the setting of perinatal nursing. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom, laboratory, and clinical settings.

Three theory units (30 clock hours) and three clinical units (90 clock hours).

Prerequisites: NURS 221, 254.

Corequisite: NURS 222.

## **NURS 271**

**1-2 F, W, S; 1-6 Su**

### **Field Experience**

A work-study course offered through the department in cooperation with selected clinical agencies. Students apply previously learned theory and clinical skills in assigned patient-care settings under direct supervision of selected RN preceptors. One quarter unit of academic credit requires 75 clinical hours. Repeatable to a maximum of 8 credits.

Prerequisite: NURS 125 and permission of course faculty.

UPPER-DIVISION COURSES:

## **NURS 325**

**9 F, W, S**

### **Nursing VI**

Reinforces and expands on concepts previously learned. Students focus on managing care for multiple patients and fully integrating professional concepts into nursing practice. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom and clinical settings.

Three theory units (30 clock hours) and six clinical units (180 clock hours).

Prerequisites: All 100 and 200 level nursing courses.

Corequisite: NURS 326.

## **NURS 326**

**3 F, W, S**

### **Management and Professional Practice**

Reinforces and expands on concepts previously learned with emphasis on professional concepts essential to patient care management (advocacy, clinical decision making, collaboration, delegation, ethics, management and leadership, legal issues). Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom settings.

Three theory units (30 clock hours).

Prerequisites: All 100 and 200 level nursing courses.

Corequisite: NURS 325.

## **NURS 335**

**4 F**

### **Advanced Health Assessment**

Reinforces and builds upon the concept of assessment focusing on further application and integration of skills of taking a full health history, collecting assessment data, and distinguishing normal from abnormal findings. Advanced assessment techniques are introduced and skills developed. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in classroom

and laboratory settings.

Three theory units (30 clock hours) and one clinical unit (30 clock hours).

Prerequisite: B.S.N. program admission.

## **NURS 375**

**3 W**

### **Nursing Issues: End of Life Care**

Reinforces individual concepts related to grief and loss, with a focus on grief response theories, and addresses common issues related terminal illness and death. Emphasis is on the professional concepts of advocacy, caring interventions, collaboration, and communication as relevant to end of life care. System concepts are applied as pertinent to the issues discussed. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Three theory units (30 clock hours).

Prerequisites: NURS 124, 212

## **NURS 376**

**3 S**

### **Nursing Issues: Transcultural Care**

Explores individual concepts related to culture and diversity and family. Emphasis is on the professional concepts of advocacy, caring interventions, collaboration, and communication as relevant to providing nursing care in an increasingly diverse world. System concepts are applied as pertinent to the issues discussed. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Three theory units (30 clock hours).

Prerequisites: NURS 124, 212.



**NURS 384 3 W**

**Special Topics:  
Health Care Delivery Systems**

Explores professional concepts related to health care systems and health policy and the relationships among these systems and policies and the nation's health. Emphasis is on the professional concepts of accountability and advocacy within the health care system as relevant to select national health care issues. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Three theory units (30 clock hours).

Prerequisite: B.S.N. program admission.

**NURS 389 3-5 Arranged**

**Special Topics: Various**

Exploration of special topics with implications for nurses in various professional roles. Repeatable for credit under different subtitles. Subtitles include Informatics, Complementary and Alternative Medicine, and Nursing Role Specialization Practicum. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Three or four theory units (30-40 clock hours) for each subtitle, with the following exception: Specialization Practicum includes individualized practical experience in various settings for three to five clinical units (80 clock hours/unit).

Prerequisite: B.S.N. program admission. Current California RN license required for practicum. Students who have completed NURS 124 & 212 may be permitted to enroll in the Complementary and Alternative Medicines topic course.

**NURS 390 4 F, W, S**

**Pathophysiology**

Expands on concepts learned in the biophysical and psychosocial sciences and focuses on concepts related to the individual that are prevalent in the major conditions identified by the CDC and IOM as leading causes of morbidity and mortality (comfort, infection, homeostasis, metabolism, oxygenation, perfusion, immunity, inflammation, sensory/neuro). Concepts related to the profession (assessment, caring interventions, evidence based practice) are emphasized in relation to the nurses' role in helping individuals move toward optimum health. Students achieve student learning outcomes by integrating new and prior knowledge in the classroom setting.

Four theory units (40 clock hours).

Prerequisites: NURS 124, 212.

**NURS 419 4 F**

**Nursing Issues: Professional**

Exploration of current nursing issues focusing on professional concepts relevant to the evolving role of nurses in a dynamic health care environment. Special emphasis on developing an expanded awareness of opportunities to participate as a change agent, demonstrating and advocating for best practices related to select health care system concepts (health policy, legal issues, quality improvement). Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Four theory units. (4 clock hours).

Prerequisite: B.S.N. program admission.

**NURS 420 4 W**

**Nursing Issues: Social**

Exploration of current nursing issues that involve individual concepts (e.g., culture and diversity, family). Special emphasis on developing a better understanding of the sociocultural issues affecting the health of individuals, families, and communities, and the role of the nurse in facilitating wellness and supporting autonomy within various health care settings. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Four theory units (40 clock hours).

Prerequisite: B.S.N. program admission.

**NURS 421 3-4 S**

**Nursing Issues: Various**

Exploration of current nursing issues with implications for the nursing profession. Repeatable for credit under different subtitles, such as Global. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in real and/or virtual classroom settings.

Four theory units (4 clock hours).

Prerequisite: B.S.N. program admission.

# Nursing and Health Sciences

## **NURS 431** **4 F** **Community Health Nursing**

Expands on professional nursing concepts applied to the community health care setting. Emphasis on promoting and maintaining health and preventing illness among individuals, families, and communities with a particular focus on issues identified by the CDC, IOM, and other organizations as health care priorities because of their potential to affect the Nation's health. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in the classroom setting.

Four theory units (4 clock hours).

Prerequisite: B.S.N. program admission  
Corequisite: NURS 432

## **NURS 432** **3 F** **Community Health Nursing Practicum**

Provides for the application of community health nursing concepts. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in community health care settings.

Three clinical units (90 clock hours).

Prerequisites: B.S.N. program admission; current California RN license.  
Corequisite: NURS 431.

## **NURS 460** **4 W** **Health Care Education**

Expands on the professional concepts of teaching and learning and evidence based practice as a major strategy for health promotion and education. An overview of learning theories and educational strategies provides the basis for developing the role of nurse as educator. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in the classroom setting.

Four theory units (4 clock hours).

Prerequisite: B.S.N. program admission.

## **NURS 461** **4 S** **Health Care Management**

Expands on professional concepts relevant to the role of nurse as manager. Includes an overview of theories of leadership and management and an emphasis on strategies to implement initiatives that improve safety and quality in various healthcare settings. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in the classroom setting.

Four theory units (4 clock hours).

Prerequisite: B.S.N. program admission.

## **NURS 462** **3 W, S** **Health Care Management and Education Practicum**

Provides for the application of health care education and management concepts. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in various health care settings.

Three clinical units (90 clock hours).

Prerequisites: NURS 460 or 461; current California RN license.

Corequisite: NURS 460 or 461.

## **NURS 485** **4 W** **Introduction to Nursing Research**

Introduces the concepts and process of research and its implications for nursing and reinforces and applies the professional nursing concept of evidence based practice. Emphasis on becoming a consumer of nursing research by developing basic skills for interpreting and using research to inform practice. Students achieve student learning outcomes by integrating knowledge, skills, and attitudes in the classroom setting.

Four theory units (40 clock hours).

Prerequisite: B.S.N. program admission.

Recommended prerequisite: STAT 222.

## **NURS 490** **.5 F, W, S** **B.S.N. Capstone I**

Emphasizes reflection, integration, and synthesis from other B.S.N. courses. Primarily a self-directed course. Allows the student to demonstrate mastery of program objectives and serves as an assessment of student learning. To be taken during the first quarter of enrollment in the B.S.N. program. Students who take longer than six quarters (or two years) to complete the B.S.N. are required to repeat this course partway through the program. Repeatable to a maximum of 1 credit.

0.5 theory units (5 clock hours).

Prerequisite: B.S.N. program admission.

## **NURS 491** **.5 F, W, S** **B.S.N. Capstone II**

Emphasizes reflection, integration, and synthesis from other B.S.N. courses. Primarily a self-directed course. Allows the student to demonstrate mastery of program objectives and serves as an assessment of student learning. To be taken during the final quarter of enrollment in the B.S.N. program.

0.5 theory units (5 clock hours).

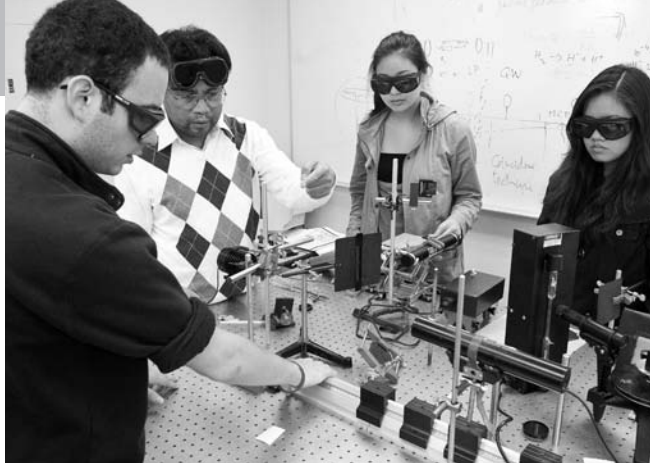
Prerequisite: NURS 490

## **NURS 495** **1-3 Arranged** **Independent Study**

Individual research; for advanced students with adequate background in appropriate nursing studies. Three units maximum.

One to three theory units (10-30 clock hours).

Prerequisites: Permission of chair or program coordinator.



## Faculty

Steve Waters, chair; Vola Andrianarijaona, Bruce Ivey, James Robertson

Departmental Office: 238 Chan Shun Hall; 965-7269

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PHYSICS is the search for the fundamental physical laws of nature. In particular, physics is the study of forces and motion of physical entities, seeking to find basic relations that synthesize these phenomena. The goal is to discover ways to control and predict natural occurrences and to understand and explain the physical universe. To achieve this goal involves observation and experimentation from which physical and mathematical models are developed that suggest concepts and theories. Although modern science limits itself to a naturalistic view of reality and to experimental ways of obtaining knowledge, this department takes the view that physical phenomena are consistent with the concept of an intelligent Designer and divine Creator.

Degrees offered include a four-year B.S. in Physics designed primarily to prepare students for graduate work or applied research; a four-year B.S. in Biophysics, which is popular for pre-medical and pre-dental preparation but is also suitable for secondary education; and a four-year B.S. in Natural Science with an emphasis in physics, which is primarily for those preparing for secondary teaching.

This department houses the first two years of the engineering program that is affiliated with the School of Engineering at Walla Walla University.

## Major in Physics, B.S.

A minimum of 107 hours (37 upper-division hours)

### ► Required Core Courses (97 hours):

ASTR 115	Astronomy	5
CHEM 111+112+113	General Chemistry	5+5+5
CPTR 115	Intro. to Computer Programming	4
ENGR 216	Circuit Theory	4
MATH 131+132+133	Calculus I,II,III	4+4+4
MATH 265	Elementary Linear Algebra	4
MATH 267	Multivariable Calculus	4
MATH 269	Elementary Differential Equations	4
PHYS 211+212+213	Physics with Calculus I,II,III	4+4+4
PHYS 314	Elementary Modern Physics	4
PHYS 341+342	Classical Dynamics I,II	3+3
PHYS 361+362+363	Electromagnetic Theory I,II,III	3+3+3
PHYS 389L	Experimental Physics	1
PHYS 396	Seminar (4 quarters)	.5+.5+.5+.5
PHYS 445	Thermal Physics	4
PHYS 461+462	Quantum Physics I,II	3+3
PHYS 489L	Advanced Experimental Physics	1

### ► Required Core Electives (10 hours)

At least 4 hours from the following:	4
Additional upper-division PHYS courses laboratory, project and/or independent research	
At least 6 hours from the following:	6
Additional non-service PHYS courses	
CHEM 344	Nuclear Physics and Chemistry (3)

### Recommended Proficiency:

Modern-language proficiency comparable to a one-year college course in French or German.

This course of study is adequate for the student who is preparing for graduate study in physics.

## Physics & Engineering

### Major in Biophysics, B.S.

A minimum of 107 hours (41 upper-division hours)

#### ► Required Core Courses (97 hours)

BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 320	Cellular and Molecular Biology	4
BIOL 348	Systems Physiology	5
CHEM 111+112+113	General Chemistry	5+5+5
CHEM 371+372+373	Organic Chemistry	4+4+4
CHEM 481	Biochemistry I	4
ENGR 216	Circuit Theory	4
MATH 131+132+133	Calculus I,II,III	4+4+4
PHYS 314	Elementary Modern Physics	4
PHYS 321	Biophysics	3
PHYS 322	Medical Physics	3
PHYS 389L	Experimental Physics	1
PHYS 396	Seminar (4 quarters)	.5+.5+.5+.5
PHYS 489L	Advanced Experimental Physics	1

One of the following options: 12-16

PHYS 111+112+113 General Physics I,II,III (4+4+4)

PHYS 265 Applied Physics (4)

or

PHYS 211+212+213 Physics with Calculus I,II,III (4+4+4)

#### ► Required Core Electives (10 hours)

At least 10 hours from the following: 10

(Including at least 2 upper-division hours)

Additional non-service BIOL courses

Additional non-service PHYS courses

Additional CHEM courses chosen from the following:

CHEM 344 Nuclear Physics and Chemistry (3)

CHEM 450L Physical Chemistry Laboratory (1)

CHEM 451 Physical Chemistry: Thermo. (3)

CHEM 452 Physical Chemistry: Dynamics (3)

#### Recommended Courses:

CPTR 115 Intro. to Computer Programming (4)

MICR 134 General Microbiology (5)

PHYS 265 Applied Physics (4)

This program provides the additional emphasis in the physical sciences demanded for graduate study in biophysics, physiology, medicine, radiation biology and molecular biology, especially when a career in academic medicine or medical research is contemplated. This program is also recommended as a broad major for teaching at the secondary-school level.

### Major in Natural Science, B.S. Physics Emphasis

A minimum of 100 hours (29 upper-division hours)

This major provides appropriate preparation for teaching science at the secondary level. The core requirement of 65 quarter hours of course work corresponds to science subjects commonly taught in California public schools, and the emphasis treats the subject matter at a depth more than adequate for teaching the higher-level secondary science courses in physics. Emphases may also be obtained in biology or chemistry. For further information, see the sections entitled "Biology" and "Chemistry" in this catalog.

ASTR 115	Astronomy	5
ASTR 173	Meteorology	1
BIOL 111+112+113	Biological Foundations	5+5+5
BIOL 331	Marine Science	4
BIOL 355	Issues on Origins	3
CHEM 111+112+113	General Chemistry	5+5+5
GEOL 233	Geology	4
PHYS 390	History and Philosophy of Science	3

At least one of the following courses: 3

ENVR 360 Conservation Biology (3)

ENVR 361 Energy & Climate Change (3)

ENVR 362 Pollution & Environmental Quality (3)

One of the following sequences: 4+4+4

PHYS 111+112+113 General Physics I,II,III (4+4+4)\*

PHYS 211+212+213 Physics with Calculus I,II,III (4+4+4)

#### Physics Emphasis (35 hours)

MATH 131+132+133 Calculus I,II,III 4+4+4

PHYS 314 Elementary Modern Physics 4

At least one of the following courses: 4

ENGR 216 Circuit Theory (4)

PHYS 265 Applied Physics (4)

At least 15 hours from the following: 15

(Including at least 12 upper-division hours)

Additional non-service PHYS courses

CHEM 344 Nuclear Physics and Chemistry (3)

### Teaching Credential

Students desiring to enter a program of studies leading to a California teaching credential in science with a concentration in physics should take the either the B.S. degree in Biophysics or

\* Students who select this option are required to complete PHYS 265 for the physics emphasis.

the B.S. degree in Natural Science, Physics Emphasis. Students will need to pass the science (physics concentration) portion of the CSET exam one quarter prior to doing full-time student teaching. Students are invited to discuss the program with their major advisor in the Physics Department.

Those who plan to teach on the secondary level should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the Education section of this catalog.

**Minor in Physics**

*A minimum of 30 hours (12 upper-division hours) chosen from physics, astronomy, and engineering courses (except ENGR 105).*

**Engineering**

Engineering courses are offered for those who wish to begin studies in engineering that meet the requirements of the first two years of the engineering degree of Walla Walla University. Facul-

ty of the WWU School of Engineering visit Pacific Union College regularly for guidance and counseling of students. The Bachelor of Science in Engineering degree, of which this program is a part, prepares the student to enter professional practice in civil, mechanical or electrical engineering. The following courses may be taken at Pacific Union College to satisfy the requirements of the affiliation plan:

CHEM 111+112+113	General Chemistry	5+5+5
CPTR 115	Intro. to Computer Programming	4
ENGL 101+102	College English	4+4
ENGR 105	Introduction to Engineering	3
ENGR 131	Engineering Drawing	3
ENGR 211+212+213	Engineering Mechanics I,II,III	3+3+3
ENGR 216	Circuit Theory	4
MATH 131+132+133	Calculus I,II,III	4+4+4
MATH 265	Elementary Linear Algebra	4
MATH 267	Multivariable Calculus	4
MATH 269	Elementary Differential Equations	4
PHYS 211+212+213	Physics with Calculus I,II,III	4+4+4

**Astronomy**

LOWER-DIVISION COURSES:

**ASTR 115 Astronomy 5 F, W**

An introduction for the general student to the basic elements of astronomy. Topics include models of the solar system, stars and their processes, clusters, galaxies, cosmology, and relevant physics topics such as light, spectroscopy, nuclear reactions, and relativity. Emphasizes the development of scientific ideas and models for the structure and contents of the universe and the effects of those ideas on western civilization. Laboratory activities emphasize personal observations of various astronomical objects, as weather permits. Four lectures and one evening laboratory per week. Prerequisite: MATH 096 or equivalent.

**ASTR 173 Meteorology 1 F**

Helps explain various natural phenomena for a better understanding of the science of meteorology. Beginning with the basics of physics that control the atmosphere, the discussion extends to the causes of weather patterns, frost, snow, rain, sleet, tornadoes, and hurricanes.

UPPER-DIVISION COURSE:

**ASTR 495 Independent Study 1-3 Arranged**

With the approval of the department chair, qualified students may undertake the independent study of problems suited to their background and experience. Repeatable to a maximum of 3 credits.

**Engineering**

LOWER-DIVISION COURSES:

**ENGR 105 Introduction to Engineering 3 F**

A survey of engineering as a profession: the main divisions; the work, functions and personal characteristics of the engineer; application of the sciences in engineering; design tools used by engineers; computer methods, basic skills for engineering problem-solving. Two lectures and one laboratory per week.

**ENGR 131 Engineering Drawing 3 W**

Principles of and practice in engineering drawing. Applications to technical problems of CAD drafting techniques, orthographic, and pictorial views. Two lectures and one laboratory per week.

## Physics & Engineering

### **ENGR 211+212+213 3+3+3 F+W+S** **Engineering Mechanics I,II,III**

Statics and dynamics. Detailed analysis of equilibrium, kinetics and kinematics of particles and rigid bodies. Examples and problems relate to real engineering applications. Prerequisites: MATH 131+132. Corequisite: PHYS 211.

### **ENGR 216 4 S** **Circuit Theory**

Introductory circuit analysis for engineering and physics students. Circuit variables and parameters; Kirchoff's laws and network solution; equivalent circuits, network theorems; natural and complete response; sinusoidal steady-state, phasors and impedance; frequency characteristics; power and power factor. Three lectures and one laboratory per week. Prerequisite: MATH 131+132. Corequisite: MATH 133

## Physics

### SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

### **PHYS 105 5 S** **Introduction to Physics**

Emphasizes the ideas and concepts of conventional topics in physics with illustrations from everyday living. Assumes no previous physics course. (Students who need this course to meet a curricular requirement may also need to register for PHYS 106L.) Prerequisite: MATH 096 or equivalent.

### **PHYS 106L 1 S** **Introduction to Physics Laboratory**

A laboratory emphasizing physical measurements for those curricula requiring an introductory physics course with laboratory. One laboratory per week. Prerequisite or corequisite: PHYS 105.

### LOWER-DIVISION COURSES:

### **PHYS 111+112+113 4+4+4 F+W+S** **General Physics I,II,III**

A three-quarter standard sequence introducing the fundamental natural phenomena of the physical universe, with an emphasis on fundamental principles and methods of physics. Suitable for pre-professional students and also acceptable as part of the general-education requirement in basic science. Three lectures and one laboratory per week. Must be taken in sequence. Prerequisite: Knowledge of algebra and trigonometry at the level provided by MATH 130 or by MATH 106 and 113.

PHYS 111 includes Newtonian mechanics, fluids, waves and vibrations, and sound.

PHYS 112 includes kinetic theory, thermodynamics, electricity, and magnetism.

PHYS 113 includes optics, atomic and nuclear physics, elementary particle physics, and special relativity.

### **PHYS 211+212+213 4+4+4 F+W+S** **Physics with Calculus I,II,III**

A three-quarter calculus-based sequence introducing the fundamental natural phenomena of the physical universe, with an emphasis on fundamental principles and methods of physics. Intended primarily for students majoring in the physical sciences, engineering or mathematics, but also appropriate for other students with the necessary background in mathematics. Three lectures and one laboratory per week. Must be taken in sequence. Prerequisite: MATH 133.

PHYS 211 includes Newtonian mechanics, fluids, waves and vibrations, and sound.

PHYS 212 includes kinetic theory, thermodynamics, electricity, and magnetism.

PHYS 213 includes optics, atomic and nuclear physics, elementary particle physics, and special relativity.

### **PHYS 265 4 S** **Applied Physics**

Applications of fundamental physical principles such as thermodynamics, solid state physics, and modern optics to selected technological and/or practical uses. Topics include atomic transport processes in condensed phases, solid state physics in semiconductor, and modern optics. Three lectures and one laboratory per week. Prerequisite: PHYS 113 or 213. Odd years.

### UPPER-DIVISION COURSES:

### **PHYS 314 4 F** **Elementary Modern Physics**

A continuation of PHYS 211+212+213. Offers an overview of the fundamentals of relativity and quantum physics and selected topics such as atomic and molecular physics, statistical mechanics, solid state physics, nuclear physics, and elementary particles. Three lectures and one laboratory per week. Prerequisites: MATH 269, PHYS 213 or PHYS 265.

### **PHYS 321 3 W** **Biophysics**

For the upper-division physics student with adequate preparation in biology. Covers a variety of topics in which physical analysis and techniques are applied to study molecular and cellular phenomena. Prerequisites: BIOL 111+112+113, CHEM 113, PHYS 314. Even years.

### **PHYS 322 3 S** **Medical Physics**

A continuation of PHYS 321. Includes the physical principles of radiology, diagnostic imaging, and nuclear medicine. Prerequisite PHYS 321. Even years.

**PHYS 341+342 3+3 F+W**  
**Classical Dynamics I,II**

Classical mechanics including Newtonian mechanics and Lagrangian dynamics, which are used to solve problems associated with central-force motion, rigid object dynamics, oscillations, and wave motion. The theoretical bases of problems are emphasized, together with the development of different problem-solving techniques. Prerequisites: MATH 265, 267, 269, PHYS 213. Even years.

**PHYS 361+362+363 3+3+3 F+W+S**  
**Electromagnetic Theory I,II,III**

Topics include electrostatics, magnetostatics, electromagnetism, electromagnetic radiation, and relativistic electrodynamics. The concepts of field and potentials are emphasized. Prerequisites: MATH 265, 267, 269, PHYS 213. Odd years.

**PHYS 389L 1 F, W, S**  
**Experimental Physics**

Provides experience with real science apparatus such as lasers, high field magnets, detectors, radioactive sources, and sophisticated electronics. Activities include experiments in mechanics, electromagnetism, optics, heat, and atomic and nuclear physics. One laboratory per week. Repeatable to a maximum of 5 credits. Prerequisites: ENGR 216. Corequisite: PHYS 314.

**PHYS 390 3 S**  
**History and Philosophy of Science**  
 (See also PHIL 390)

The historical roots of modern science, the nature of scientific knowledge, its development and methodology, the impact of science on culture (and vice versa), and the influence of philosophical and theological concepts on science. Prerequisites: PHYS 105 or CHEM 101; PHIL 101 or demonstrated preparedness for course. Even years.

**PHYS 396 .5 F, W, S**  
**Seminar**  
 (See also BIOL 396, CHEM 396, CPTR 396, ENVR 396)

Topics of current interest in the natural sciences are presented and discussed. Repeatable to a maximum of 3 credits. Graded S/F.

**PHYS 445 4 S**  
**Thermal Physics**

A statistical description of a system of particles. Different ensembles and their associated partition functions are emphasized and applied to various thermal systems. Prerequisites: MATH 265, 267, 269; PHYS 314. Even years.

**PHYS 461+462 3+3 W+S**  
**Quantum Physics I,II**

Quantum mechanics and atomic physics. Topics include wave packets, Schrödinger's equation and its solutions, operator methods, angular momentum, matrix representation, spin, perturbation theory, the hydrogen atom, and radiation by atoms. Prerequisites: MATH 265, 267, 269; PHYS 314. Odd years.

**PHYS 485 3 S**  
**Issues in Science and Religion**  
 (See also PHIL 485)

The relationship and interaction between science and religion: epistemology, the methods, languages, scope and limitations of science and religion, problems of ethics and science. Two hours of credit may be applied toward the general-education requirement in religion. Prerequisites: PHYS 105, CHEM 101, or equivalent; PHIL 101 or demonstrated preparedness for course. Odd years.

**PHYS 486 1-4 Arranged**  
**Special Topics in Physics**

A selected, physics-related topic of interest to the general student. Format and scheduling depend on the topic selected but usually consists of several lectures over a period of two or three weeks on a subject of current interest. Credit may be applied toward a physics major by approval of the department chair.

**PHYS 489L 1 S**  
**Advanced Experimental Physics**

Culminating educational experience for physics major students as the final experimental physics course required to complete the physics curriculum. In addition to continuing the experience and activities provided in PHYS 389L, students will communicate and/or publish their results. Prerequisite: PHYS 389L. Qualifies for IP grading.

**PHYS 495 1-3 Arranged**  
**Independent Study**

Properly qualified students majoring in physics may, with the approval of the department chair, undertake an independent study of a topic suited to their background and experience. Repeatable to a maximum of 3 credits.

**PHYS 499 1-3 F, W, S**  
**Independent Research**

Properly qualified students majoring in physics may, with the approval of the department chair, undertake a directed research problem suited to their background and experience. Repeatable to a maximum of 9 credits.







## Faculty

Monte Butler, chair; Bruce Bainum, Charlene Bainum,  
Fiona Bullock, Aubyn Fulton, Gregory Schneider  
Departmental Office: 109 Davidian Hall; 965-6537

## Degrees and Programs

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The department offers two majors: Psychology and Social Work. The goals of the department are as follows:

- To encourage purposeful living in the service of God and humanity by helping students understand and apply principles of human behavior in personal and professional relationships.
- To provide a general background for a wide range of careers that involve working with people, such as law, medicine, nursing, education, business, and the ministry.
- To prepare students at the baccalaureate level in the generalist framework for employment in the profession of social work.
- To prepare students for successful graduate study in psychology and social work.

## Major in Psychology, B.S.

A minimum of 79 hours (55 upper-division hours)

### ► Required Core Courses (57 hours):

PSYC 121	General Psychology	4
PSYC 122	Psychology Seminar*	3
PSYC 130	Introduction to the Psychology Major*	1
PSYC 322	Research Design	4
PSYC 323	Introduction to Experimental Psychology	4
PSYC 334	Child Development	3
PSYC 334L	Child Development Laboratory	1
PSYC 344	Psychology of Personality	4
PSYC 364	Social Psychology	4
PSYC 394	Colloquium**	3
PSYC 436	Physiological Psychology	4
PSYC 444	History and Systems of Psychology	4
PSYC 445	Learning and Memory	4
PSYC 490	Issues in Religion, Ethics, and the Human Sciences	4
PSYC 499	Systematic Issues in Psychology	4

### At least one of the following courses:

PSYC 390	Gender Issues (3)	3
SOCI 355	“Racial” and Ethnic Relations (3)	3

At least one of the following courses:

PSYC 435	Psychology of Religion (3)	3
SOCI 435	Sacred and Profane in Society (3)	3

### ► Required Core Electives (11 hours):

At least 11 additional hours from the following:\*\*\*

PSYC 240	Health Psychology (4)	11
PSYC 260	Death and Dying (4)	
PSYC 335	Adolescent Development (3)	

\* Must be taken before the junior year.

\*\* Must be taken each quarter of the sophomore and junior years.

\*\*\* Transfer courses (generally limited to upper-division hours for current students) may be approved by the department.

# Psychology & Social Work

PSYC 358	Abnormal Psychology (4)
PSYC 360	Psychopharmacology (3)
PSYC 368	Principles of Counseling (4)
PSYC 390	Gender Issues (3)
PSYC 399	Research Seminar (1-2)
PSYC 435	Psychology of Religion (3)
PSYC 457	Psychological Testing (4)
PSYC 481	Field Work in Psychology Seminar (1)
PSYC 491	Field Work in Psychology (1-2)

► **Required Cognate Courses (11 hours):**

ANTH 124	Cultural Anthropology	4
SOCI 121	Introduction to Sociology	4
STAT 322	Statistical Methods	3

**Recommended Cognate Course:**

Any college-level biology course with lab  
*This recommendation is usually met by BIOL 102 (Human Physiology) or by any one of BIOL 111-112-113 (Biological Foundations).*

## Major in Psychology, B.A.

*A minimum of 68 hours (52 upper-division hours)*

Core and cognate requirements are the same as those for the B.S. degree except the 11 hours of core electives are not required. B.A. students are required to complete the foreign language component of the general education package.

## Bachelor of Social Work, B.S.W.

*A minimum of 112 hours (63 upper-division hours)*

The baccalaureate degree program in social work is fully accredited by the Council on Social Work Education. It is designed to prepare students at the baccalaureate level to enter the profession as generalist social work practitioners.

The Student Learning Outcomes (SLO's) of the social work program support its mission and goals to train students as competent generalist social workers, ready for beginning professional practice in accord with the standards of the Council on Social Work Education. These SLO's provide the standard by which the quality of education and professional competencies of students may be assessed.

Graduates of the social work program can:

1. Demonstrate respect for the core Department values of free inquiry, diversity, responsible citizenship, and service to God and Humanity.

2. Demonstrate recognition of the moral tensions, and appreciation of the common values, between the professions and the Christian faith.
3. Identify as a professional social worker and conduct oneself accordingly.
4. Apply social work ethical principles to guide professional practice.
5. Apply critical thinking to inform and communicate professional judgments.
6. Engage diversity and difference in practice.
7. Advance human rights and social and economic justice.
8. Engage in research-informed practice and practice-informed research.
9. Apply knowledge of human behavior and the social environment.
10. Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
11. Respond to contexts that shape practice.
12. Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.

Students interested in social work as a profession should make an advisement appointment with the Social Work Program Director. The *Social Work Student Handbook* contains detailed information on the admissions process.

1. Complete the program admissions packet, including admissions application and reference letters (one letter must be from a person who supervised the applicant a minimum of 30 hours in a social work or social service position).
2. Complete the personal admissions interview.

The Program Admissions Committee applies the following criteria in evaluating applications:

- Successful completion of required prerequisite courses
- Satisfactory course performance
- Effective oral-communication skills
- Effective written-communication skills
- Attitudes, behaviors, mental health, and ethics appropriate to the social work profession
- Minimum cumulative GPA of 2.25
- Minimum cumulative GPA of 2.5 within the Social Work core and cognate courses

The Admissions Committee notifies each candidate of the action taken on his or her application.

To remain in the program, students must continue to meet the same academic, ethical, mental health, and behavioral standards.

Any Social Work core or cognate course may be repeated for failing performance only once. A course is considered to be a repeat for failing performance if the student has attempted the course previously and the original attempt resulted in a grade below C- or a withdrawal due to failing performance.

The *Social Work Student Handbook* contains further information on criteria for admission to the program, continuance in it, and the appeal process.

► **Required Core Courses (69 hours):**

PSYC 322	Research Design	4
SOCI 355	“Racial” and Ethnic Relations	3
SOWK 121	Introduction to Social Work	3
SOWK 232	American Social Problems	4
SOWK 275	History and Philosophy of Social Welfare Institutions	3
SOWK 340	Writing for Program Evaluation I	1
SOWK 341	Program Evaluation	2
SOWK 368	Principles of Counseling	4
SOWK 376	Human Behavior in the Social Environment I	3
SOWK 377	Human Behavior in the Social Environment II	3
SOWK 382	Practice Theory I	4
SOWK 383	Practice Theory II	4
SOWK 394	Colloquium*	3
SOWK 465	Practice Theory III	4
SOWK 468	Social Welfare Policy and Contemporary Social Issues	3
SOWK 476	Field Experience I	5
SOWK 477	Field Experience II	4
SOWK 478	Field Experience III	5
SOWK 486	Integrative Field Seminar I	1
SOWK 487	Integrative Field Seminar II	1
SOWK 488	Integrative Field Seminar III	1
SOWK 490	Issues in Religion, Ethics, and the Human Sciences	4

► **Required Core Electives (8 hours):**

Electives must be selected in consultation with the Social Work advisor.

► **Required Cognate Courses (35 hours):**

ECON 261	Macroeconomics	4
ENGL 101	College English	4**
ENGL 102	College English	4**
PLSC 124	Introduction to American Government	3
PSYC 121	General Psychology	4
STAT 222	Introduction to Statistics	4

*One of the following courses:*

BIOL 101	Human Anatomy (5)	5
BIOL 102	Human Physiology (5)	5

*One of the following courses:*

COMM 105	Intro to Communication (3)	3**
COMM 226	Public Speaking (3)	3

*At least one of the following courses:*

PSYC 344	Psychology of Personality (4)	4
PSYC 358	Abnormal Psychology (4)	4

► **General Education Requirements:**

The general education requirements for the B.S.W. are the same as for the B.S. degree except that the health requirement (VI-A) is fulfilled by the major.

**Recommended Courses:**

Students who intend to seek employment in California are strongly urged to include Spanish as a second language. See especially SPAN 105 Spanish for Health Care Professionals and SPAN 111+112+113 Beginning Spanish.

**Minor in Psychology**

*A minimum of 30 hours (12 upper-division hours)*

► **Required Courses (7 hours):**

PSYC 121	General Psychology	4
PSYC 122	Psychology Seminar	3

► **Required Electives (23 hours):**

At least 23 hours from additional non-service PSYC courses, including at least 12 upper-division hours. 23

\* Must be taken each quarter of the sophomore and junior years.

\*\* For students in the honors program, these requirements may be met by HNRS 110+120.

## Anthropology

LOWER-DIVISION COURSE:

### **ANTH 124** **4 F**

#### **Cultural Anthropology**

The nature and concept of culture, the learning and growth of culture, and the development of cultural patterns. Survey of economics, kinship, gender, political structures, languages, and religion in technologically simple and complex societies.

## Psychology

SERVICE COURSE:

*(Not applicable to a major or minor in this department)*

### **PSYC 234** **4 F, S**

#### **Human Development**

Theory and research in developmental psychology, including an overview of the cognitive, emotional, physical, social, and moral development of the individual from conception to senescence. Prerequisite: PSYC 121.

LOWER-DIVISION COURSES:

### **PSYC 121** **4 F, W, S**

#### **General Psychology**

Survey of the field of psychology: social processes, biological psychology, learning, development, motivation, memory, personality, psychopathology, and therapies. Prerequisite: ENGL 100.

### **PSYC 122** **3 W**

#### **Psychology Seminar**

An introductory seminar emphasizing the exploration and discussion of psychological issues. Includes critical analysis of psychological topics and religious, ethical, and social implications of psychological theory and data. Prerequisite: PSYC 121.

### **PSYC 126** **2 F, W, S**

#### **Assertive Behavior**

(See SOWK 126.)

### **PSYC 130** **1 W**

#### **Introduction to the Psychology Major**

Introduction to the basic skills needed for success in major courses and an overview of career and graduate school options. Includes PsychINFO, APA style, critical evaluation of research, research ethics, internet tools, and academic and professional options in psychology. Should be completed during the freshman or sophomore year. Prerequisite: PSYC 121.

### **PSYC 227** **3 W**

#### **Conflict Resolution and Relationship Skills**

(See SOWK 227.)

### **PSYC 240** **4 S**

#### **Health Psychology**

The scientific study of the psychological factors contributing to wellness, illness, recovery from and prevention of illness. A particular focus is on health promoting and compromising behaviors. Also considers the professional subdiscipline that applies knowledge about these factors in order to intervene to maximize wellness.

### **PSYC 260** **4 W**

#### **Death and Dying**

(See SOWK 260.)

UPPER-DIVISION COURSES:

### **PSYC 322** **4 F**

#### **Research Design**

Methods of inquiry in the behavioral sciences from conception of idea to analysis of data. Includes the experiment, survey research, observational methods, and program evaluation. Three lectures and one laboratory per week. The laboratory introduces the student to the Statistical Package for the Social Sciences (SPSS). Prerequisites: PSYC 121, STAT 222.

### **PSYC 323** **4 W**

#### **Introduction to Experimental Psychology**

Research design and procedures in psychological research. Requires a major research project laboratory. Two lectures, a 30 minute individual appointment with the instructor, and 4.5 hours of laboratory per week. Prerequisites: PSYC 121, 322.

### **PSYC 334** **3 F**

#### **Child Development**

(See also ECED 334.)

Theory and research in developmental psychology; their application in understanding and relating to children. Focus on learning, perception, and identification and on the development of intelligence, motivation, language, play, personality, self-concept, moral principles, and sex roles. Emphasis on interaction between innate development and environmental influences. Covers infancy through adolescence. Note: psychology majors must also take PSYC 334L. Prerequisite: PSYC 121.

### **PSYC 334L** **1 F**

#### **Child Development Laboratory**

Review and actual practice of research methods in the study of children from infancy through late adolescence. Prerequisite: PSYC 121.

**PSYC 335 3 W**  
**Adolescent Development**

Theory and research in adolescent development. Focuses on the unique tasks and conflicts of adolescence, the role and function of adolescence in modern society, and the social and psychological problems and opportunities associated with adolescence. Prerequisite: PSYC 121.

**PSYC 344 4 F**  
**Psychology of Personality**

Survey and analysis of major theoretical models of personality, personality classification systems, and empirical research. Prerequisite: PSYC 121.

**PSYC 358 4 W**  
**Abnormal Psychology**

Overview of psychological disorders: description of symptoms, course of the disorder, etiology, and treatment. Includes survey of current biological and behavioral research in psychopathology and behavioral disorders. Prerequisite: PSYC 121. Recommended prerequisite: PSYC 344.

**PSYC 360 3 F**  
**Psychopharmacology**

The drugs that affect behavior through action on the nervous system. Major psychoactive drug groups include anti-anxiety, antidepressant, antipsychotic, stimulant, and drugs of abuse. Related issues of drug distribution, administration, dosage, absorption and fate. Prerequisite: PSYC 121.

**PSYC 364 4 W**  
**Social Psychology**

The psychological principles underlying group behavior and the effects of the group on individual behavior: attitude change, conformity, aggression, prejudice, and theories of interpersonal attraction, altruism and attribution. Three lectures and one laboratory per week. Prerequisite: PSYC 121.

**PSYC 368 4 F**  
**Principles of Counseling**  
 (See also SOWK 368.)

A prepractice introduction to the work, ethical issues, and theories of counseling. Emphasis on establishing a beginning personal philosophy of counseling. Prerequisite: PSYC 121. Recommended prerequisite: PSYC 344 or 358.

**PSYC 390 3 S**  
**Gender Issues**  
 (See also SOWK 390.)

Historical, biological, sociological, cultural, and psychological impacts on gender issues, both male and female. Significant emphasis on the effects on the individual, family, workplace, community, and society. Breaking stereotypes and barriers.

**PSYC 394 .5 F, W, S**  
**Colloquium**  
 (See also SOWK 394.)

Topics of current interest in social work and psychology. Includes guest speakers, progress reports on student and faculty research, and presentations on current professional issues. Required for all department majors during each quarter of the sophomore and junior years. Prerequisite: PSYC 121. Repeatable to a maximum of 3 credits.

**PSYC 399 1-2 F, W**  
**Research Seminar**

For students completing a research project with supervision by a research mentor. Emphasis on revision and submission of an APA-style manuscript and/or poster for professional presentation. Prerequisite: Approval of the instructor, PSYC 121. With approval of the instructor, repeatable to a maximum of 4 credits. Qualifies for IP grading.

**PSYC 435 3 F**  
**Psychology of Religion**

Religious experience, behavior, and development from the perspective of dynamic and research psychologies. Two hours may be applied toward the general-education requirement in religion. Prerequisite: PSYC 121. Odd years.

**PSYC 436 4 F**  
**Physiological Psychology**

The physiological explanations of behavior; brain-behavior relationships; sensory, neural and motor structures significant to human experience. Prerequisite: PSYC 121.

**PSYC 444 4 W**  
**History and Systems of Psychology**

Greek and medieval background of psychology, the early modern period, the emergence of contemporary experimental work, and special fields of psychology; influential psychological systems. Prerequisite: PSYC 121.

**PSYC 445 4 S**  
**Learning and Memory**

Comparison and integration of basic research in animal learning and human memory and cognition. Emphasis on the relative roles of mechanistic and mentalistic variables and on the plausibility of universal laws of learning. Three lectures and one laboratory per week. Prerequisite: PSYC 121.

# Psychology & Social Work

## **PSYC 457** **4 W** **Psychological Testing**

The purpose, contribution, and problems of psychological testing. Emphasis on understanding the psychometric and clinical characteristics of standardized tests. The major areas of testing, including ability, achievement, intelligence, interest, and personality. Three lectures and one laboratory per week. Prerequisite: PSYC 121. Recommended prerequisite: STAT 222.

## **PSYC 481** **1 W** **Field Work in Psychology Seminar**

A weekly seminar focusing on ethical and professional issues in psychology; case presentations. Prerequisites: Completion of a Field Work Application by the last Friday before Thanksgiving Recess; completion of 60 hours of college credit; a grade of C- or higher in PSYC 122, 130, and one of the following: PSYC 344, 358, or 368 (concurrent registration is acceptable); and permission of the instructor. Corequisite: PSYC 491.

## **PSYC 490** **4 S** **Issues in Religion, Ethics, and the Human Sciences** (See also SOWK 490.)

Exploration of tensions in belief, conduct, and identity that arise from being both a Christian and a person changed through contact with the human sciences. Special attention to issues for Christians entering professions in psychology and social work. Prerequisite: PSYC 121. Open to senior majors in the Psychology & Social Work Department and to others by permission of the instructor.

## **PSYC 491** **1-2 F, W, S** **Field Work in Psychology**

Placement in a local human service agency (for 3-6 clock hours per week). Prerequisite: Completion of PSYC 481 (concurrent registration is acceptable), and permission of the instructor. Repeatable to a maximum of 3 credits.

## **PSYC 495** **1-3 Arranged** **Independent Study**

Enrollment limited to department majors wishing to pursue independent investigations in psychology under the direction of the Psychology faculty. Repeatable to a maximum of 3 credits.

## **PSYC 499** **4 F** **Systematic Issues in Psychology**

A review of the psychology major, including an in-depth analysis of the experimental foundations of general psychology; orientation to the graduate school application process and preparation for the psychology GRE. Prerequisite: PSYC 121. Enrollment limited to senior psychology majors. Qualifies for IP grading.

## **Sociology**

### LOWER-DIVISION COURSES:

## **SOCI 121** **4 S** **Introduction to Sociology**

The relationship of sociology to the total behavioral science field; orientation to the structure and functioning of society; development and social nature of personality; background and development of culture; basic social institutions.

## **SOCI 214** **4 W** **The Family** (See SOWK 214.)

## **SOCI 232** **4 F** **American Social Problems** (See SOWK 232.)

### UPPER-DIVISION COURSES:

## **SOCI 355** **3 S** **"Racial" and Ethnic Relations**

History of ethnic groups in the United States. Ethnic groups studied include African Americans, Jewish Americans, American Indians, Asian Americans, Latin Americans, and European Americans. The nature of prejudice and discrimination, especially as evidenced in contemporary American racial problems; possible solutions of group conflict.

## **SOCI 435** **3 F** **The Sacred and Profane in Society**

Examination of the social-religious nature of humankind; description and use of concepts in the sociological study of religion; consideration of mainstream and marginal religious organizations and movements. Two hours may apply toward the general-education requirement in religion. Even years.

## **SOCI 495** **1-3 Arranged** **Independent Study**

Enrollment limited to advanced students wishing to do independent research under direction of the department faculty.

## **Social Work**

### LOWER-DIVISION COURSES:

## **SOWK 121** **3 F, S** **Introduction to Social Work**

Introduction to the profession of social work and social interventions. Fields of practice, practice methods, and the knowledge, values, ethics, and skills of the profession. Focus on social work and populations-at-risk and issues of human diversity. Open to all students interested in the profession of social work and social interventions.

**SOWK 126 2 F, W, S**

**Assertive Behavior**

(See also PSYC 126.)

Emphasis on developing basic skills and confidence in clarifying one's desires or needs and communicating them to others in socially acceptable and effective ways. Learning through role playing, discussion, and setting personal goals.

**SOWK 214 4 W**

**The Family**

(See also SOCI 214.)

Exploration of the meaning and functions of family systems. The adjustments of premarriage, marriage, and family living viewed as a system, with focus on skills designed to establish and maintain the family institution.

**SOWK 227 3 W**

**Conflict Resolution and Relationship Skills**

(See also PSYC 227.)

Skill development in self-understanding and in relating effectively with others. Provides tools for effective communication and conflict resolution. Applicable to personal, work, and social relationships.

**SOWK 232 4 F**

**American Social Problems**

(See also SOCI 232.)

An introduction to major social problems in current American society. Causality, current dynamics, and projections on the future climate of social change related to crime, violence, population, environment, family issues, discrimination, social and economic justice, and health care.

**SOWK 260 4 W**

**Death and Dying**

(See also PSYC 260.)

Focuses on bio-psycho-social, cultural and spiritual factors related to death and dying. Includes a review of the physi-

cal aspects, agencies and institutions involved in the death process; legal issues; psychological theories of grief and mourning; and cultural, spiritual, and religious death rituals and beliefs. Also emphasizes support for professional crisis workers (e.g. police, firefighters, nurses, doctors, and ministers) and traumatic stress responses to disasters.

**SOWK 275 3 W**

**History and Philosophy of Social Welfare Institutions**

Exploration of changing value systems and philosophies and the attempts of society and social welfare institutions to meet human needs. Examination from both historical and current perspectives. Prerequisites: SOWK 121, PLSC 124 and HIST 101+102 or HIST 134+135.

UPPER-DIVISION COURSES:

**SOWK 340 1 F**

**Writing for Program Evaluation I**

Introduction to program evaluation with an emphasis on the writing process. Prerequisites: COMM 105 or 226, ENGL 101+102. Corequisite: PSYC 322. Enrollment limited to junior B.S.W. majors, or those who have permission of the instructor.

**SOWK 341 2 W**

**Program Evaluation**

Emphasis on the process of carrying out a program evaluation project and the dissemination of findings. Prerequisites: SOWK 340 and PSYC 322.

**SOWK 342 1 S**

**Writing for Program Evaluation II**

Extensive re-writing of a student's program evaluation project in preparation for presentation to program staff and the broader practice community. Prerequisite: SOWK 341.

**SOWK 368 4 F**

**Principles of Counseling**

(See PSYC 368.)

**SOWK 376 3 F**

**Human Behavior in the Social Environment I**

The bio-psycho-social factors that impact or influence behavior from infancy through young adulthood from the person-in-environment perspective. Focus on the assessment process in generalist practice, with special attention to cultural awareness and factors of human diversity. Emphasis on research relevant to social work practice. Prerequisites: SOWK 275, BIOL 101 or 102, PSYC 121.

**SOWK 377 3 W**

**Human Behavior in the Social Environment II**

The bio-psycho-social factors that influence behaviors of individuals from young adulthood through the elder years from the person-in-environment perspective. Focus on the assessment process in generalist practice, with special attention to cultural awareness and factors of human diversity. Emphasis on research relevant to social work practice. Prerequisite: SOWK 376.

**SOWK 382 4 S**

**Practice Theory I**

Emphasis on the generalist model of practice with focus on work with individuals. The micro level of intervention as it relates to client engagement, problem assessment, data collection, goals, strategies, action, and evaluation to help the client or client system resolve problems. Three lectures and one laboratory per week. Prerequisites: SOWK 368, 376, 377. Enrollment limited to B.S.W. majors who have obtained or are eligible for admission to the Social Work Program.

## **SOWK 383** **4 F**

### **Practice Theory II**

Emphasis on the generalist model of practice with small groups and family systems. The mezzo level of intervention as it relates to group goals, structure, dynamics and processes. Focus on development of basic mezzo skills and techniques in working with groups and families of various composition and age. Three lectures and one laboratory per week. Prerequisites: SOWK 368, 376, 377. Enrollment limited to B.S.W. majors.

## **SOWK 390** **3 S**

### **Gender Issues**

(See PSYC 390.)

## **SOWK 394** **.5 F, W, S**

### **Colloquium**

(See PSYC 394.)

## **SOWK 465** **4 W**

### **Practice Theory III**

Basic knowledge at the macro level necessary for functioning effectively in generalist social work roles. Focus on problem-solving methods for desired change within generalist practice; organizations and communities as they promote, restore, maintain, and enhance social functioning. Emphasis on community organization with diverse populations and on research techniques. Prerequisite: SOWK 382, 383. Enrollment limited to B.S.W. majors.

## **SOWK 468** **3 S**

### **Social Welfare Policy and Contemporary Social Issues**

Focuses on policy analysis, critical thinking and current political issues at the state and federal levels as they impact diverse client populations. Explores the active role of the generalist social worker in this process. Prerequisite: SOWK 275, ECON 261.

## **SOWK 476** **5 F**

### **Field Experience I**

A placement of 150 clock hours in an approved social service agency with emphasis on integration and active use of content from all areas of the curriculum. Prerequisite: SOWK 382. Corequisites: SOWK 383 and 486. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program. Qualifies for IP grading.

## **SOWK 477** **4 W**

### **Field Experience II**

A placement of 120 clock hours in an approved social service agency with emphasis on integration and active use of content from all areas of the curriculum. Prerequisite: SOWK 476. Corequisites: SOWK 465 and 487. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program. Qualifies for IP grading.

## **SOWK 478** **5 S**

### **Field Experience III**

A placement of 150 clock hours in an approved social service agency with emphasis on integration and active use of content from all areas of the curriculum. Prerequisite: SOWK 477. Corequisite: SOWK 488. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program. Qualifies for IP grading.

## **SOWK 486** **1 F**

### **Integrative Field Seminar I**

A seminar to facilitate the transition from theory to practice. Corequisite: SOWK 476. Qualifies for IP grading.

## **SOWK 487** **1 W**

### **Integrative Field Seminar II**

A seminar to facilitate a continued integration of theory and practice issues. Prerequisite: SOWK 486. Corequisite: SOWK 477. Qualifies for IP grading.

## **SOWK 488** **1 S**

### **Integrative Field Seminar III**

A seminar designed to provide opportunity for practicum students to exchange learning from their field settings. Emphasis on continued integration of theory and practice issues, with particular emphasis on team consultation skills. Prerequisite: SOWK 487. Corequisite: SOWK 478. Qualifies for IP grading.

## **SOWK 490** **4 S**

### **Issues in Religion, Ethics, and the Human Sciences**

(See PSYC 490.)

## **SOWK 495** **1-3 Arranged**

### **Independent Study**

Enrollment limited to advanced students wishing to do independent research on a specific topic of current social work interest and its implication for integrative practice.





**Faculty**

Leo Ranzolin, chair; Angel Hernandez, Young-Chun Kim, Jean Sheldon, Myron Widmer, Ross Winkle  
 Departmental Office: 16 Graf Hall; 965-6206

**Degrees and Programs:**

Theology, B.A.....	177
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Theology and Religion majors investigate the inspiring and life-changing truths of the Christian faith. Such exploration brings to life the Word of God in all its theological, historical, ethical, spiritual, and practical dimensions. The RELIGION DEPARTMENT offers two majors, Theology and Religion, and two minors, Religion and Biblical Languages.

The Theology major is recommended for those who want to enter Christian ministry, specifically pastoral ministry, youth ministry, lay ministry, chaplaincy, or the teaching of religion. This major fulfills all prerequisites for acceptance into the Master of Divinity degree program at the Seventh-day Adventist Theological Seminary.

The Religion major is designed for those who want a solid background in religion but are planning careers in other fields, such as teaching, health professions, and law. Religion majors complete a set of core religion classes and do further in-depth study in a chosen subject by selecting one of three emphases: Biblical Studies, Health Professions, or Theology and Christian History.

The two minors, in Religion and Biblical Languages, provide a more formal framework for general students or education majors. Each minor incorporates the 18 hours of religion credit expected of every four-year graduate of the college.

**Major in Theology, B.A.**

A minimum of 98 hours (56 upper-division hours)

► *Required Core Courses (98 hours):*

*Biblical Studies\**

RELB 150	Encountering Jesus	3
RELB 225	Books of Moses	3
RELB 335	Greek Exegesis	3
RELB 445	Hebrew Exegesis	3

*At least one of the following courses:* 3

RELB 370	Studies in Daniel (3)
RELB 371	Studies in Revelation (3)

*At least 6 hours from the following:* 6

Additional non-service RELB courses

*Historical Studies*

RELH 235	Life and Ministry of Ellen White	3
RELH 360	Adventist Heritage	4

*At least two of the following courses:* 6

RELH 320	Christian History: To 1054 (3)
RELH 321	Christian History: 1054 to 1600 (3)
RELH 322	Christian History: 1600 to the Present (3)

*Biblical Languages*

RELL 125+126+127	Beginning Greek I,II,III	3+3+3
RELL 235+236	Intermediate Greek I,II	3+3
RELL 427+428	Biblical Hebrew I,II	3+3

*Applied Theology*

RELP 235	Sharing Your Faith	3
RELP 324+325	Ministry Colloquium I,II	4**

\* To fulfill seminary entrance requirements for the Master of Divinity, students must take at least 9 hours of Old Testament RELB courses and at least 9 hours of New Testament RELB courses. RELB courses should be chosen accordingly.

\*\* Repeats fall & winter (.5+.5) for four years.

## Religion

REL 381+382	Biblical Preaching I,II (with labs)	3+3
REL 391+392+393	Extern Program I,II,III (with labs)	2+2+2
REL 475+476	Pastoral Ministry I,II	3+3

### *Theological Studies*

RELT 235	Spiritual Formation	3
RELT 333	Seventh-day Adventist Theology	3
RELT 464	Seminar in Theology	3

*At least one of the following courses:* 3

RELB 315	Biblical Ethics (3)	
RELT 216	Introduction to Christian Ethics (3)	
RELT 355	Christian Ethics in Society (3)	
RELT 440	Christian Bioethics (3)	

*At least one of the following courses:* 3

RELT 331	Christian Theology: God & Humanity (3)	
RELT 332	Christian Theology: Salvation & the Church (3)	

*At least 3 hours from the following:* 3

Additional RELT courses

This major is designed for the student who is preparing for Christian ministry, including pastoral ministry, youth ministry, chaplaincy, and teaching religion. The major is particularly suitable for the student who plans to seek graduate education in the seminary.

Students who desire to take this major must progress through the following two stages:

#### *Stage I: Admission into the Program.*

Evaluation and guidance that is focused upon helping students make sure that they are entering upon the right career path, given their interests, capabilities, and personality. When this process is successfully completed at the end of the second year, the student is invited to join the Ministerial Studies Program. Admission into the program is a prerequisite for the junior year Extern Program (REL 391+392+393).

#### *Stage II: Advancement to Candidacy.*

Assessment of the commitment and potential of senior theology majors for successful ministry, and preparation for effectively presenting themselves to hiring agencies. Acceptance for Advancement to Candidacy is required for graduation as a theology major and for inclusion in the senior hiring interviews.

Exceptions to these criteria are considered individually and may be approved by the Religion Department faculty.

Each student successfully completing the Ministerial Studies Program, the academic requirements of this major, and the required Summer in Ministry Internship is eligible for

recommendation by the Religion Department as a candidate for entrance into pastoral ministry or the seminary and subsequent work in some branch of Christian ministry.

## Major in Religion, B.A.

*A minimum of 54 hours (36 upper-division hours)*

This major is designed for those who want a broad background in religion but who plan careers in a variety of other professions, such as teaching, health professions, and law.

### ► *Required Core Courses (33 hours):*

RELB 150	Encountering Jesus	3
RELB 225	Books of Moses	3
RELB 310	Prophets of Israel	3
RELB 460	Paul and His Letters	3
RELH 311	World Religions	3
RELH 360	Adventist Heritage	4
REL 324	Ministry Colloquium (4 quarters)	2
RELT 235	Spiritual Formation	3
RELT 331	Christian Theology: God & Humanity	3
RELT 332	Christian Theology: Salvation and the Church	3
RELT 333	Seventh-day Adventist Theology	3

### ► *Emphases (choose one):*

#### **1. Biblical Studies Emphasis** (24 hours)

*At least 21 hours from the following:* 21

*(Including at least 9 upper-division hours)*

RELB 230	Psalms and Wisdom Literature (3)	
RELB 250	Parables of Jesus (3)	
RELB 260	Heroes and Villains (3)	
RELB 265	Kings and Conquests (3)	
RELB 270	Acts of the Apostles (3)	
RELB 315	Biblical Ethics (3)	
RELB 320	Women of the Bible (3)	
RELB 328	Gospels (3)	
RELB 342	Studies in Bible Interpretation (3)	
RELB 370	Studies in Daniel (3)	
RELB 371	Studies in Revelation (3)	
RELH 340	Biblical Culture and Archaeology (3)	
RELH 387	Story of the English Bible (3)	

*At least 3 upper-division hours from the following:* 3

Additional non-service RELB, RELH, RELP, and RELT courses

**2. Health Professions Emphasis** (21-22 hours)

REL P 351	Ministry of Healing	3
REL T 350	Issues in Christian Faith: God and Human Suffering	3
REL T 440	Christian Bioethics	3
<i>At least one of the following courses:</i>		3
PHIL 485	Issues in Science and Religion (3)	
REL H 329	American Denominations (3)	
REL P 235	Sharing Your Faith (3)	
REL T 216	Introduction to Christian Ethics (3)	
REL T 320	Philosophy of Religion (3)	
REL T 355	Christian Ethics in Society (3)	

*At least 6 hours from the following:* 6  
*(Including at least 3 upper-division hours)*

Additional non-service RELB, RELH, RELP, and RELT courses

► **Required Cognate Course:**

<i>At least one of the following courses:</i>		3-4
EMER 225	Public Health (3)	
FDNT 235	Nutrition (3) (does not fulfill G.E.)	
PSYC 240	Health Psychology (4)	
PSYC 260	Death and Dying (4)	
PSYC 435	Psychology of Religion (3)	
SOWK 214	The Family (4) (does not fulfill G.E.)	
SPAN 105	Spanish for Health Care Professionals (3)	

**3. Theology and Christian History Emphasis** (21 hours)

<i>At least one of the following courses:</i>		3
REL H 320	Christian History: To 1054 (3)	
REL H 321	Christian History: 1054 to 1600 (3)	
REL H 322	Christian History: 1600 to the Present (3)	

*At least 15 hours from the following:* 15

Additional courses from RELH 320, 321, 322		
REL H 235	Life and Ministry of Ellen White (3)	
REL H 329	American Denominations (3)	
REL H 340	Biblical Culture and Archaeology (3)	
REL H 387	Story of the English Bible (3)	
REL T 320	Philosophy of Religion (3)	
REL T 335	Theology of the Sanctuary (3)	
REL T 337	Last Day Events (3)	
REL T 350	Issues in Christian Faith (3)	
REL T 464	Seminar in Theology (3)	

*At least 3 hours from the following:* 3  
 Additional non-service RELB, RELH, RELP, and RELT courses

**Teaching Credential**

Students planning to obtain a Seventh-day Adventist teaching credential in religion should consult with the credential analyst in the Education Department and should become acquainted with the specific requirements for admission to and successful completion of the Teacher Education Program as outlined in the Education section of this catalog.

**Minor in Religion**

*A minimum of 30 hours (6 upper-division hours)*

► **Required Courses (15-16 hours):**

<i>At least one of the following courses:</i>		3
RELB 150	Encountering Jesus (3)	
RELB 225	Books of Moses (3)	

<i>At least one of the following courses:</i>		3
RELB 310	Prophets of Israel (3)	
RELB 460	Paul and His Letters (3)	

<i>At least one of the following courses:</i>		3
RELB 370	Studies in Daniel (3)	
RELB 371	Studies in Revelation (3)	
REL T 335	Theology of the Sanctuary (3)	

<i>At least one of the following courses:</i>		3-4
REL H 235	Life and Ministry of Ellen White (3)	
REL H 360	Adventist Heritage (4)	

<i>At least one of the following courses:</i>		3
REL H 311	World Religions (3)	
REL H 329	American Denominations (3)	
REL T 216	Introduction to Christian Ethics (3)	
REL T 320	Philosophy of Religion (3)	

► **Required Electives (14-15 hours):**

*At least 14-15 hours from the following:* 14-15  
 Additional non-service RELB, RELH, RELP, and RELT courses

**Minor in Biblical Languages**

*A minimum of 30 hours (15 upper-division hours)*

► **Required Courses (30 hours):**

RELL 125+126+127	Beginning Greek I,II,III	3+3+3
RELL 235+236	Intermediate Greek I,II	3+3
RELL 427+428	Biblical Hebrew I,II	3+3
RELB 335	Greek Exegesis	3
RELB 445	Hebrew Exegesis	3
REL H 387	Story of the English Bible	3

*This minor is not open to theology majors.*

# Religion

## Philosophical Studies

LOWER-DIVISION COURSE:

**PHIL 101** **4 F, W, S**  
**Introduction to Philosophy**

Basic issues of philosophy, including methods and values, from the perspective of Western civilization.

UPPER-DIVISION COURSES:

**PHIL 390** **3 F**  
**History and Philosophy of Science**  
(See PHYS 390.)

**PHIL 451** **3 Arranged**  
**History of Western Thought**

Survey of philosophy in Western civilization from the pre-Socratic era to the present. Prerequisite: PHIL 101.

**PHIL 470** **3 W**  
**Seminar in Philosophy**

An analysis and critique of selected primary sources of Western philosophers from Plato to the 20th century. Prerequisite: PHIL 101. Odd years.

**PHIL 485** **3 S**  
**Issues in Science and Religion**  
(See PHYS 485.)

**PHIL 495** **1-3 Arranged**  
**Independent Study**

With the approval of the department chair, properly qualified students may undertake an investigation of a topic suited to their background and experience. Repeatable to a maximum of 9 credits.

## Biblical Studies

LOWER-DIVISION COURSES:

**RELB 150** **3 F, W, S**  
**Encountering Jesus**

Exploration of the pivotal role, identity and teachings of Jesus in the salvation of humanity. Prerequisite: Completion of GE section II.A.

**RELB 200** **3 F**  
**Methods of Bible Study**

Analysis of appropriate ways to approach the study of various types of written material found in the Bible. Prerequisite: Completion of GE sections II.A and II.B.

**RELB 225** **3 F, W, S**  
**Books of Moses**

Literature, history, and theology of the first five books of the Old Testament. Prerequisite: Completion of GE sections II.A and II.B.

**RELB 230** **3 W**  
**Psalms and Wisdom Literature**

Psalms, Proverbs, Song of Solomon, and other books of the Old Testament classified as "Writings." Emphasis on major themes and representative passages. Prerequisite: Completion of GE sections II.A and II.B.

**RELB 250** **3 F, W**  
**Parables of Jesus**

The history and interpretation of the parables of Jesus in the context of the New Testament and with reference to their contemporary relevance. Prerequisite: Completion of GE sections II.A and II.B.

**RELB 260** **3 W**  
**Heroes and Villains**

Analysis of Biblical narratives about famous and infamous characters to discover key truths about God and life-giving principles for humans. Prerequisite: Completion of GE sections II.A and II.B.

**RELB 265** **3 F**  
**Kings and Conquests**

An examination of selected chapters from the historical writings of the Old Testament: Joshua, Judges, Samuel, Kings, Chronicles, Ezra, Nehemiah, and Esther. Prerequisite: Completion of GE sections II.A and II.B.

**RELB 270** **3 F**  
**Acts of the Apostles**

The development of the early church as depicted in Acts of the Apostles, with attention to background, purpose, theology, ethics, and relevance to present-day concerns. Prerequisite: Completion of GE sections II.A and II.B.

UPPER-DIVISION COURSES:

**RELB 310** **3 W**  
**Prophets of Israel**

The origin and nature of the prophetic movement followed by an examination of the message of the Old Testament prophetic books. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 315** **3 W**  
**Biblical Ethics**

Major moral teachings of the Old and New Testaments in relation to contemporary moral issues. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 320** **3 S**

**Women of the Bible**

Women in the Bible, in the light of their cultures and times, with attention to theological themes and their relevance for today. Prerequisite: Completion of GE sections II.A, II.B, and II.C. Even years.

**RELB 328** **3 F**  
**Gospels**

The distinctive theological portraits presented by Matthew, Mark, Luke, and John in the depiction of the life, death, and resurrection of Jesus of Nazareth. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 335** **3 S**  
**Greek Exegesis**

Translation and exegesis of selected passages from the Greek New Testament, involving analysis of their historical background, literature, and theology. Prerequisites: RELL 235 and 236.

**RELB 341** **2-3 F**  
**Jesus as Healer**

The role of Jesus as healer as seen in Matthew, Mark, Luke, and John. Enrollment limited to B.S.N. (nursing) students.

**RELB 342** **3 F, S**  
**Studies in Bible Interpretation**

Study of a book of the Old or New Testament, such as:

*Genesis*  
*Isaiah*  
*Romans*  
*I Corinthians*  
*Galatians*  
*Ephesians*  
*Hebrews*

Repeatable for credit under different subtitles. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 370** **3 F**

**Studies in Daniel**

The book of Daniel, with focused study on its prophetic chapters. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 371** **3 W**  
**Studies in Revelation**

The book of Revelation, with focused study on its prophetic messages. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 445** **3 S**  
**Hebrew Exegesis**

Translation and exegesis of passages from the Hebrew Bible. This will involve analysis of the historical background, literature, and theology of selected Old Testament passages. Prerequisites: RELL 427 and 428.

**RELB 460** **3 S**  
**Paul and His Letters**

Analysis and interpretation of selected portions from the letters of Apostle Paul. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELB 495** **1-3 Arranged**  
**Independent Study**

With the approval of the department chair, properly qualified students may undertake an investigation of a topic suited to their background and experience. Repeatable to a maximum of 9 credits.

## Historical Studies

LOWER-DIVISION COURSE:

**RELB 235** **3 W**  
**Life and Ministry of Ellen White**

An introduction to the life and ministry of Ellen White, including an overview of her writings, the biblical teaching on

the gift of prophecy, and contemporary issues relating to Ellen White. Prerequisite: Completion of GE sections II.A and II.B.

UPPER-DIVISION COURSES:

**RELH 311** **3 F**  
**World Religions**

An introduction to great traditions of world religions and to concepts for the study and comparison of these traditions. Emphasis on non-Judeo-Christian traditions. Includes an examination of these religions in relation to Christianity. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELH 320** **3 F**  
**Christian History: To 1054**  
(See HIST 320)

**RELH 321** **3 W**  
**Christian History: 1054 to 1600**  
(See HIST 321)

**RELH 322** **3 S**  
**Christian History: 1600 to Present**  
(See HIST 322)

**RELH 329** **3 S**  
**American Denominations**

Historical and theological dimensions of American religious identity, with a view toward broadening the understanding of the context of Adventism. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELH 340** **3 F**  
**Biblical Culture and Archaeology**

The Bible in its religious, cultural, geographical, and political environment as illuminated by discoveries of archaeology. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

# Religion

**RELH 360** **4 S**  
**Adventist Heritage**  
(See HIST 360)

**RELH 387** **3 F**  
**Story of the English Bible**

The history of the English Bible, including the production, canonization, transmission, and translation of the text as well as principles and methods for evaluating the text and modern English versions. Prerequisite: Completion of GE sections II.A, II.B, and II.C. Odd years.

**RELH 495** **1-3 Arranged**  
**Independent Study**

With the approval of the department chair, properly qualified students may undertake an investigation of a topic suited to their background and experience. Repeatable to a maximum of 9 credits.

## Biblical Languages

*No courses with the prefix RELH may apply as electives to the religion minor.*

### LOWER-DIVISION COURSES:

**RELL 125+126+127** **3+3+3 F+W+S**  
**Beginning Greek I,II,III**

Basic grammar and translation of the Koine Greek of the New Testament, with attention to exegetical tools and methods. Must be taken in sequence.

**RELL 235+236** **3+3 F+W**  
**Intermediate Greek I,II**

Intermediate grammar, translation, and exegetical exercises in the Koine Greek of the New Testament. Must be taken in sequence. Prerequisites: RELL 125, 126 and 127

### UPPER-DIVISION COURSES:

**RELL 427+428** **3+3 F+W**  
**Biblical Hebrew I,II**

Basic grammar, vocabulary, and syntax of Biblical Hebrew, including selected readings from various portions of the Old Testament text. Must be taken in sequence.

**RELL 495** **1-3 Arranged**  
**Independent Study**

With the approval of the department chair, properly qualified students may undertake an investigation of a topic suited to their background and experience. Repeatable to a maximum of 9 credits.

## Applied Theology

### LOWER-DIVISION COURSES:

**RELP 210** **3 S**  
**Creative Worship**

Seeks to bring deep joy to one's worship of God. Students experience a variety of worship expressions, study the biblical and historical foundations for worship, and work in teams to create innovative ways of leading people into meaningful adoration of God. The "hands-on" approach helps students understand contemporary culture and its worship patterns. Prerequisite: Completion of GE sections II.A and II.B.

**RELP 235** **3 S**  
**Sharing Your Faith**

The philosophy, principles, and methods of introducing God and the Gospel in a personal way. Students learn how to build genuine relationships with those of different faith backgrounds and to share the teachings of Scripture, including the distinctive teachings of Christianity and Adventism. Prerequisite: Completion of GE sections II.A and II.B.

### UPPER-DIVISION COURSES:

**RELP 319** **2 S**  
**Church Missions in the Modern World**

A survey of contemporary mission theology and methodology, emphasizing personal motivation and preparation, comparative religions, cultural awareness, and interpersonal skills. Prerequisite to student missionary appointment. Enrollment limited to student missionary appointees; exceptions only by approval of the instructor.

**RELP 324+325** **.5+.5 F+W**  
**Ministry Colloquium I,II**

Lecture/discussion series for majors in theology and religion. RELP 324 focuses on topics of general interest for majors in theology and religion. RELP 325 includes an increased focus on ministry topics particularly relevant for theology majors. Repeatable for credit. Graded S/F.

**RELP 346** **2-3 S**  
**Spiritual Care for Patients**

Development of knowledge and skills for meeting spiritual needs that arise in patient care. Includes a survey of religious backgrounds to inform the caring ministry of the health-care professional. Enrollment limited to B.S.N. (nursing) students.

**RELP 350** **3 S**  
**Studies in Christian Ministry**

The origins, theological foundations, and past and current practices of selected topics in Christian ministry, such as:

*Youth Ministry*  
*Worship*  
*Public Evangelism*  
*Preaching*

Repeatable for credit under different subtitles. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELP 351** **3 S**  
**Ministry of Healing**

Exploration of Biblical health principles, Jesus' ministry of healing, and past and present scientific discoveries that encourage a healthful, holistic lifestyle—a core value in Seventh-day Adventist heritage. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELP 381+382** **3+3 F+W**  
**Biblical Preaching I,II**

The art, discipline, and process of effective sermon preparation and delivery. Must be taken in sequence. Two hours lecture and one laboratory per week. Enrollment limited to junior and senior theology and religion majors. Prerequisite: COMM 105 or 226. Even years.

**RELP 391+392+393** **2+2+2 F+W+S**  
**Extern Program I,II,III**

Field work in area churches and a weekly seminar. Enrollment limited to junior and senior theology majors who have been accepted into the Ministerial Studies Program. Must be taken in sequence.

**RELP 475+476** **3+3 F+W**  
**Pastoral Ministry I,II**

The theology, theory, and practice of pastoral ministry. Emphasis on understanding the biblical mandate and context for the local church and on learning how to lead effectively and build up the body of believers. Enrollment limited to junior and senior theology majors. Must be taken in sequence. Odd years.

**RELP 484** **1-3 F, W, S**  
**Field Practicum**

Instruction and experience in specialized ministries: hospital chaplaincy, youth ministry, prison ministry, etc. Prerequisite: approval of the instructor. Repeatable for credit. Qualifies for IP grading. Graded S/F.

**RELP 495** **1-3 Arranged**  
**Independent Study**

With the approval of the department chair, properly qualified students may undertake an investigation of a topic suited to their background and experience. Repeatable to a maximum of 9 credits.

## Theological Studies

SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

**RELP 105** **3 F, W**  
**Introduction to the Bible**

Introduction to the Bible and its basic teachings.

LOWER-DIVISION COURSES:

**RELP 205** **3 F, W**  
**Christian Beliefs**

Introduction to key Christian beliefs, including the Godhead, inspiration and revelation by God, human nature, salvation, and the role of the Christian church. Prerequisite: Completion of GE sections II.A and II.B.

**RELP 216** **3 F, W, S**  
**Introduction to Christian Ethics**

Moral decision-making involving the development and application of Christian principles to modern ethical issues. Prerequisite: Completion of GE sections II.A and II.B.

**RELT 220** **3 F, W**  
**Seventh-day Adventist Beliefs**

Introduction to the distinctive beliefs of the Seventh-day Adventist faith, including the Bible's teachings on the seventh-day Sabbath, second coming of Jesus, Great Controversy theme, holism, sanctuary and forgiveness, church identity, lifestyle, and last day events. Prerequisite: Completion of GE sections II.A and II.B.

**RELT 235** **3 F, S**  
**Spiritual Formation**

A theological and practical study of how to build and maintain a personal friendship with God, including the use of the classic disciplines used by Christians throughout the ages. Prerequisite: Completion of GE sections II.A and II.B.

**RELT 240** **3 S**  
**Eco-theology**

The interrelationship of religion and nature in light of contemporary environmental concerns, from a Seventh-day Adventist perspective. Due to the interdisciplinary nature of the field, attention is given to various associated topics such as environmental ethics, philosophy, biblical and religious traditions, and social justice. Prerequisite: Completion of GE sections II.A and II.B.

UPPER-DIVISION COURSES:

**RELT 320** **3 W**  
**Philosophy of Religion**

Issues raised by a rational analysis of religion. Emphasis on the nature and validity of Judeo-Christian world views. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 330** **3 W****The Christian and the Media**

Examination of the power of film media to shape cultural and religious values. Critical analysis of films through the dual lenses of biblical principles and frameworks. Selected popular TV programs and films will be analyzed in class, assessing their potential for wholesome entertainment as well as spiritual edification and meaning. Ninety minutes lecture/discussion and four hours viewing laboratory per week. Prerequisites: ENGL 102, completion of GE sections II.A, II.B, and II.C.

**RELT 331** **3 F****Christian Theology: God and Humanity**

The nature and purpose of Christian doctrine; the doctrines of inspiration and revelation, God, humankind, sin, and the remedy for sin. Enrollment limited to theology and religion majors. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 332** **3 W****Christian Theology: Salvation and the Church**

The doctrine of Christ—His nature and His work, the nature and purpose of the church, and the spiritual experience of its members. Enrollment limited to theology and religion majors. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 333** **3 S****Seventh-day Adventist Theology**

The distinctive beliefs of the Adventist Church, including lifestyle and worship, the sanctuary, the law, Sabbath, death, the Second Coming, and heaven. Enrollment limited to theology and religion majors. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 335** **3 W****Theology of the Sanctuary**

The plan of salvation as illustrated in the architecture, design, rituals, and theology of the tabernacle and various temples mentioned in Jewish history and literature and the Old and New Testaments. Prerequisite: Completion of Completion of GE sections II.A, II.B, and II.C.

**RELT 336** **3 W****Current Issues in Seventh-day Adventism**

Analysis and discussion of current cultural and theological issues impacting Seventh-day Adventist life and thought. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 337** **3 S****Last Day Events**

Final events of earth's history culminating in the return of Jesus Christ, with emphasis on how to be ready for His coming. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 338** **3 W****The Sabbath**

Exploration of the biblical Sabbath, including its theology; relationship to God, salvation, worship, and last day events; development in Jewish and Christian faiths; practice and ethics; and distinctive Seventh-day Adventist perspectives. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 345** **2-3 W****Christian Ethics in Patient Care**

The study and application of ethical theory and Christian principles to ethical dilemmas facing the professional nurse. Enrollment limited to B.S.N. (nursing) students.

**RELT 350** **3 W****Issues in Christian Faith**

An in-depth study of a topic important to Christian faith. Consideration of the theological and spiritual dimensions of the topic. Subtitles include:

*God and Human Suffering*

*Women and the Church*

*The Death and Resurrection of Christ*

Repeatable for credit under different subtitles. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 355** **3 W****Christian Ethics in Society**

The moral implications of Christian faith for the organization or transformation of social institutions. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 440** **3 S****Christian Bioethics**

Contemporary ethical issues in the biomedical sciences from the perspective of Christian ethics. Topics include abortion, euthanasia, eugenics, reproductive technologies, and human experimentation. Prerequisite: Completion of GE sections II.A, II.B, and II.C.

**RELT 464** **3 S****Seminar in Theology**

Seminar for senior theology and religion majors. Others may be admitted with the consent of the instructor.

**RELT 495** **1-3 Arranged****Independent Study**

With the approval of the chair, properly qualified students may undertake an investigation of a topic suited to their background and experience. Repeatable to a maximum of 9 credits.





## Faculty

*Milbert Mariano, chair; Alexander Carpenter, Amy Cronk, Cheryl Daley, Brian Kyle, Melissa Pratt, Cliff Rusch, Rajeev Sigamoney, Tom Turner*

*John Tagamolila, Artist in Residence*

*Departmental Office: 254 Fisher Hall; 965-6604*

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In the VISUAL ARTS DEPARTMENT, students are surrounded by opportunities to nurture their creative talents and turn them into relevant career choices within the fields of film and television production, fine art, graphic design and photography; preparation for graduate school; or preparation for other life-long goals in tandem with the visual arts. Students work with the latest tools, learning methods and technology within a caring Christian community. Students in the department are challenged to think critically about their work and its relevance to intellectual, social, cultural, historical and contemporary issues. The Visual Arts Department encourages students to embrace a Christian liberal arts education to enhance their experience as they develop into visual artists ready for professional success.

## Bachelor of Fine Arts (B.F.A.) Program

### ► Admission to the Program

Students interested in the B.F.A. should declare the program and work on foundational coursework during their first year. Typically, students are admitted to the program for the sophomore year. The *B.F.A. Application Instructions* are available at the Visual Arts Department and contain detailed information on the admissions process.

The Program Admissions Committee looks for the following criteria when evaluating applications:

- Successful completion of first year foundational courses
- Essay that demonstrates goals and intentions appropriate to the B.F.A. program
- Portfolio that demonstrates skills appropriate to the B.F.A. program
- Minimum cumulative GPA of 2.0
- Minimum cumulative GPA of 2.5 within the discipline

The Admissions Committee notifies each candidate of the action taken on his or her application.

To remain in the B.F.A. program, students must continue to meet the same academic standards.

### ► General Education Requirements

The general-education requirements for the B.F.A. degree are the same as for the B.S. degree except as indicated below.

1. I.C (Statistics) is not required.
2. Only one course is required in III.B (Social Sciences).
3. IV.B.1 (Visual Arts) is met by the major.
4. Only one course is required from IV.B.2 (Music), IV.B.3 (Philosophy), or IV.B.4 (Language & Culture).
5. Only two courses are required from V.B (Science) and V.C (Applications of Scientific and Mathematical Reasoning). The courses must come from separate subsections and one course must include a laboratory.
6. Section VII (Practical and Applied Arts) is not required.

## Visual Arts

### Major in Film and Television Production, B.F.A.

A minimum of 120.6 hours (49.6 upper-division hours)

► **Required Core Courses (103.6 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTF 121+122	Drawing Fundamentals I,II	2+2
ARTF 221	Life Drawing I	2
ARTF 394	Professional Practices in Art	1
ARTH 115+116	History of Western Art I,II	4+4
ARTH 260	Film History	3
ARTH 370	Modern & Contemporary Art	4
ARTP 150	Black & White Photography	3
ARTP 430+431	Digital Storytelling I,II	2+2
MDIA 131	Elements of Cinematic Storytelling	3
MDIA 140	Short Scriptwriting	2
MDIA 152	Introduction to Filmmaking	2
MDIA 158	Introduction to Television Production	2
MDIA 231+232	Sound Design I,II	2+2
MDIA 246+247	Screenwriting I,II	4+4
MDIA 256	Editing	3
MDIA 265	Storyboarding & Pre-Visualization	2
MDIA 270+271	Cinematography I, II	3+3
MDIA 341+342+343	Group Production I,II,III**	3+3+3
MDIA 341+342+343	Group Production I,II,III	3+3+3
MDIA 350	Directing	3
MDIA 355	Marketing and Distribution	3
MDIA 396	Colloquium	1.6*
MDIA 487+488+489	Thesis Project I,II,III	2+2+2
MDIA 494	Internship	3

At least one of the following courses: 2-3

MDIA 255	Animation (2)
MDIA 258	Motion Graphics (3)

► **Required Core Electives (11 hours):**

At least 2 hours from the following: 2  
Additional ARTH courses

At least 9 hours from the following: 9  
Additional ARTD, ARTF, ARTH, ARTP, DRMA, or MDIA courses

► **Required Cognate Courses (6 hours):**

COMM 340	Visual Communication and Semiotics	3
JOUR 434	Media Law and Ethics	3

\* The "Colloquium" is taken eight times for a total of 1.6 hours.

\*\* The "Group Production" sequence is taken twice- once during the junior year and once during the senior year.

### Major in Fine Art, B.F.A.

A minimum of 120.6 hours (60.6 upper-division hours)

► **Required Core Courses (98.6 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTD 285	Color	2
ARTD 460	Portfolio Development	3
ARTF 121+122	Drawing Fundamentals I,II	2+2
ARTF 210	Stained Glass	2
ARTF 211	Three-Dimensional Design	2
ARTF 212	Ceramics I	2
ARTF 220	Acrylic Painting	2
ARTF 221	Life Drawing I	2
ARTF 226	Collage and Assemblage	2
ARTF 310	Watercolor Painting	2
ARTF 315	Encaustic Painting	2
ARTF 320	Clay Sculpture	2
ARTF 325	Printmaking-Silkscreen	2
ARTF 326	Oil Painting	2
ARTF 330	Printmaking-Woodcuts & Etchings	2
ARTF 332	Monotype	2
ARTF 340+341	Ceramics II, III	2+2
ARTF 346	Stone Sculpture	2
ARTF 380+381	Junior Studio I, II	2+2
ARTF 394	Professional Practices in Art	1
ARTF 396	Colloquium	1.6*
ARTF 422	Life Drawing II	2
ARTF 423	Portrait Drawing	2
ARTF 447	Sculpture	2
ARTF 461	Figure Painting	2
ARTF 480+481	Senior Studio I, II	2+2
ARTF 494	Internship	3
ARTF 499	Thesis Project	3
ARTH 115+116	History of Western Art I,II	4+4
ARTH 278	Women in Art	3
ARTH 308	Asia in Art	3
ARTH 370	Modern and Contemporary Art	4
ARTP 250+251	Digital Photo I, II	3+3
ARTP 252	Digital Photo Imaging	3

► **Required Core Electives (16 hours):**

At least 2 hours from the following: 2

Additional ARTH courses

At least 14 hours from the following: 14

Additional ARTD, ARTF, ARTH, ARTP, or MDIA courses

► **Required Cognate Courses (6 hours):**

COMM 340	Visual Communication and Semiotics	3
JOUR 434	Media Law and Ethics	3

**Major in Graphic Design, B.F.A.**

*A minimum of 120.6 hours (57.6 upper-division hours)*

► **Required Core Courses (105.6 hours):**

ARTD 110	Design: Tools, Materials and Techniques	2
ARTD 124+125	Design and Composition I, II	3+3
ARTD 130	Fundamentals of Graphic Design	3
ARTD 140	Typography I	3
ARTD 150	Digital Studio I	3
ARTD 262+362	Identity/Branding I, II	3+3
ARTD 268	Illustration I	3
ARTD 285	Color	2
ARTD 317+318	Interactive Design I,II	3+3
ARTD 361	Ideation	3
ARTD 365	Packaging Design	3
ARTD 380+381	Junior Studio I,II	2+2
ARTD 396	Colloquium	1.6*
ARTD 415	Environmental Design	3
ARTD 460	Portfolio Development	3
ARTD 463+465	Typography II, III	3+3
ARTD 464	Digital Studio II	3
ARTD 468	Publication Design	2
ARTD 480+481	Senior Studio I,II	2+2
ARTD 494	Internship	3
ARTD 499	Thesis Project	3
ARTF 121+122	Drawing Fundamentals I,II	2+2
ARTF 211	Three-Dimensional Design	2
ARTF 221	Life Drawing I	2
ARTF 325	Printmaking–Silkscreen	2
ARTF 394	Professional Practices in Art	1
ARTH 115+116	History of Western Art I,II	4+4
ARTH 264	History of Graphic Design	2
ARTH 370	Modern and Contemporary Art	4
ARTP 250	Digital Photo I	3
ARTP 252	Digital Photo Imaging	3

*At least one of the following courses:* 2

ARTF 220	Acrylic Painting (2)	
ARTF 310	Watercolor Painting (2)	

► **Required Core Electives (12 hours):**

*At least 6 hours from the following:* 6  
Additional ARTH courses

*At least 6 hours from the following:* 6  
Additional ARTD, ARTF, ARTH, ARTP, or MDIA courses

► **Required Cognate Courses (3-4 hours):**

<i>At least one of the following courses:</i> 3-4	
MKTG 351	Marketing (4)
MKTG 374	Advertising (3)

**Major in Photography, B.F.A.**

*A minimum of 120.6 hours (65.6 upper-division hours)*

► **Required Core Courses (87.6 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTD 285	Color	2
ARTD 317	Interactive Design I	3
ARTD 460	Portfolio Development	3
ARTF 330	Printmaking–Woodcuts & Etchings	2
ARTF 394	Professional Practices in Art	1
ARTH 115+116	History of Western Art I,II	4+4
ARTH 277	Social History of Photography	3
ARTH 370	Modern and Contemporary Art	4
ARTP 150	Black & White Photography	3
ARTP 250	Digital Photo I	3
ARTP 251	Digital Photo II	3
ARTP 252	Digital Photo Imaging	3
ARTP 350	Portrait Photography	3
ARTP 351	Product Photography	3
ARTP 352	Digital Darkroom	3
ARTP 380+381	Junior Studio I,II	2+2
ARTP 396	Colloquium	1.6*
ARTP 430	Digital Story Telling I	2
ARTP 431	Digital Story Telling II	2
ARTP 452	Fine Print I	3
ARTP 453	Fine Print II	3
ARTP 454	Advanced Portraiture	3
ARTP 455	Architectural Photography	3
ARTP 480+481	Senior Studio I,II	2+2
ARTP 494	Internship	3
ARTP 495	Independent Study	3
ARTP 499	Thesis Project	3

► **Required Core Electives (22 hours):**

*At least 5 hours from the following:* 5

Additional ARTH courses

*At least 17 hours from the following:* 17

Additional ARTD, ARTF, ARTH, ARTP, or MDIA courses

► **Required Cognate Courses (11 hours):**

COMM 340	Visual Communication and Semiotics	3
JOUR 242	Photojournalism	2
JOUR 434	Media Law and Ethics	3
MGMT 160	Small Business Management	3

\* The “Colloquium” is taken eight times for a total of 1.6 hours.

## Visual Arts

### Major in Film and Television Production, B.A.

A minimum of 64 hours (19 upper-division hours)

► **Required Core Courses (56 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTF 394	Professional Practices in Art	1
ARTH 260	Film History	3
ARTP 150	Black & White Photography	3
MDIA 131	Elements of Cinematic Storytelling	3
MDIA 140	Short Scriptwriting	2
MDIA 152	Introduction to Filmmaking	2
MDIA 158	Introduction to Television Production	2
MDIA 231	Sound Design I	2
MDIA 246	Screenwriting I	4
MDIA 256	Editing	3
MDIA 270+271	Cinematography I, II	3+3
MDIA 341+342+343	Group Production I,II,III	3+3+3
MDIA 355	Marketing and Distribution	3
MDIA 487+488+489	Thesis Project I,II,III	2+2+2

At least one of the following courses: 2-3

MDIA 255	Animation (2)
MDIA 258	Motion Graphics (3)

► **Required Core Electives (7 hours):**

At least 7 hours from the following: 7  
Additional MDIA courses

*Recommended Field Experience:*

It is recommended that all students majoring in Film and Television Production should have completed, by the close of the winter quarter of their senior year, 300 clock hours of professional work related to this emphasis and performed under approved supervision. The College will help place students in qualifying positions.

### Major in Fine Art, B.A.

A minimum of 62 hours (25 upper-division hours)

► **Required Core Courses (58 hours):**

ARTD 124-125	Design and Composition I,II	3-3
ARTD 285	Color	2
ARTD 460	Portfolio Development	3
ARTF 121-122	Drawing Fundamentals I,II	2-2
ARTF 211	Three-Dimensional Design	2
ARTF 212	Ceramics I	2
ARTF 221	Life Drawing I	2
ARTF 330	Printmaking—Woodcuts & Etchings	2
ARTF 340	Ceramics II	2
ARTF 394	Professional Practices in Art	1
ARTF 499	Thesis Project	3
ARTH 115+116	History of Western Art I,II*	4+4
ARTH 370	Modern and Contemporary Art	4

At least one of the following courses: 3

ARTH 107	America in Art (3)
ARTH 278	Women in Art (3)

At least one of the following courses: 2

ARTF 210	Stained Glass
ARTF 226	Collage and Assemblage (2)

At least one of the following courses: 2

ARTF 320	Clay Sculpture (2)
ARTF 341	Ceramics III (2)

At least one of the following courses: 2

ARTF 332	Monotype (2)
ARTF 461	Figure Painting (2)

At least one of the following courses: 2

ARTF 346	Stone Sculpture (2)
ARTF 447	Sculpture (2)

At least one of the following courses: 2

ARTF 422	Life Drawing II (2)
ARTF 423	Portrait Drawing (2)

At least two of the following courses: 4

ARTF 220	Acrylic Painting (2)
ARTF 310	Watercolor Painting (2)
ARTF 315	Encaustic Painting (2)
ARTF 326	Oil Painting (2)

► **Required Core Electives (4 hours):**

At least 4 hours from the following: 4  
Additional ARTF courses

**Major in Graphic Design, B.A.**

*A minimum of 64 hours (24 upper-division hours)*

► **Required Core Courses (58-59 hours):**

ARTD 110	Design: Tools, Materials and Techniques	2
ARTD 124+125	Design and Composition I,II	3+3
ARTD 130	Fundamentals of Graphic Design	3
ARTD 140	Typography I	3
ARTD 150	Digital Studio I	3
ARTD 262	Identity/Branding I	3
ARTD 268	Illustration I	3
ARTD 285	Color	2
ARTD 317	Interactive Design I	3
ARTD 362	Identity/Branding II	3
ARTD 460	Portfolio Development	3
ARTD 463	Typography II	3
ARTD 464	Digital Studio II	3
ARTD 499	Thesis Project	3
ARTF 121+122	Drawing Fundamentals I,II	2+2
ARTF 394	Professional Practices in Art	1
ARTH 264	History of Graphic Design	2
ARTP 252	Digital Photo Imaging	3

*At least one of the following courses:* 3

ARTD 361	Ideation (3)	
ARTD 365	Packaging Design (3)	

*At least one of the following courses:* 2-3

ARTD 415	Environmental Design (3)	
ARTD 468	Publication Design (2)	

► **Required Core Electives (6 hours):**

*At least 6 hours from the following:* 6  
Additional ARTD courses

**Major in Photography, B.A.**

*A minimum of 63 hours (32 upper-division hours)*

► **Required Core Courses (54 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTD 285	Color	2
ARTD 460	Portfolio Development	3
ARTF 394	Professional Practices in Art	1
ARTH 277	Social History of Photography	3
ARTH 370	Modern and Contemporary Art	4
ARTP 150	Black & White Photography	3
ARTP 250	Digital Photo I	3
ARTP 251	Digital Photo II	3
ARTP 350	Portrait Photography	3
ARTP 351	Product Photography	3
ARTP 452	Fine Print I	3
ARTP 453	Fine Print II	3
ARTP 454	Advanced Portraiture	3
ARTP 455	Architectural Photography	3
ARTP 495	Independent Study	3
ARTP 499	Thesis Project	3
JOUR 242	Photojournalism	2

► **Required Core Electives (9 hours):**

*At least 9 hours from the following:* 9  
Additional ARTP courses

## Visual Arts

### Major in Film & Theater Studies, A.S.

A minimum of 44 hours

#### ► Required Core Courses (15 hours):

DRMA 229	Acting I: Fundamentals	3
DRMA 239	Techniques of Stage Production	3
ENGL 102	College English	4
MDIA 131	Elements of Cinematic Storytelling	3
MDIA 152	Intro to Filmmaking	2

#### ► Emphases (Choose one):

##### 1. Narrative/Writing Emphasis (29 hours)

###### ► Required Emphasis Courses (13 hours):

DRMA/MDIA 289	Thesis Project	3
ENGL 211	Survey of Drama	4
MDIA 140	Short Scriptwriting	2
MDIA 246	Screenwriting I	4

###### ► Required Emphasis Electives (16 hours):

At least 10 hours from the following: 10

ARTH 260	Film History (3)
ENGL 210	Bay Area Theater (3)
ENGL 212	Shakespeare in Performance (2-3)
ENGL 346	Creative Writing (4)
ENGL 474	Shakespeare (4)
MDIA 247	Screenwriting II (4)

At least 6 hours from the following: 6

Additional coursework, selected from any of the 3 emphases

##### 2. Performance Emphasis (29 hours)

###### ► Required Emphasis Courses (13 hours):

DRMA 230	Acting II: Scene Studies	3
DRMA 241	Production Credit (3 quarters)	1+1+1
DRMA 289	Thesis Project	3
ENGL 211	Survey of Drama	4

###### ► Required Emphasis Electives (16 hours):

At least 10 hours from the following: 10

DRMA 231	Voice & Speech (2)
DRMA 232	Movement (2)
DRMA 241	Production Credit (1-3)
DRMA 339	Specialized Training (2-4)
ENGL 210	Bay Area Theater (3)
ENGL 212	Shakespeare in Performance (2-3)
ENGL 474	Shakespeare (4)

At least 6 hours from the following: 6

Additional coursework, selected from any of the 3 emphases.

##### 3. Technical Emphasis (29 hours)

###### ► Required Emphasis Courses (13 hours):

MDIA 158	Intro to Television Production	2
MDIA 231	Sound Design I	2
MDIA 270	Cinematography I	3
MDIA 256	Editing	3
MDIA 289	Thesis Project	3

###### ► Required Emphasis Electives (16 hours):

At least 10 hours from the following: 10

ARTP 150	Black & White Photography (3)
ARTP 250	Digital Photo I (3)
MDIA 232	Sound Design II (2)
MDIA 258	Motion Graphics (3)
MDIA 271	Cinematography II (3)
MDIA 350	Directing (3)
MDIA 355	Marketing and Distribution (3)

At least 6 hours from the following: 6

Additional coursework, selected from any of the 3 emphases.

**Major in Graphic Design, A.S.**

*A minimum of 49 hours*

► **Required Core Courses (49 hours):**

ARTD 110	Design: Tools, Techniques and Materials	2
ARTD 124+125	Design and Composition I,II	3+3
ARTD 130	Fundamentals of Graphic Design	3
ARTD 140	Typography I	3
ARTD 150	Digital Studio I	3
ARTD 262	Identity/Branding I	3
ARTD 268	Illustration I	3
ARTD 299	Thesis Project	3
ARTD 464	Digital Studio II	3
ARTF 121+122	Drawing Fundamentals I,II	2+2
ARTF 394	Professional Practices in Art	1
ARTH 370	Modern and Contemporary Art	4
ARTP 150	Black & White Photography	3
ARTP 252	Digital Photo Imaging	3

*At least two of the following courses:* 5-6

ARTD 317	Interactive Design I (3)
ARTD 361	Ideation (3)
ARTD 362	Identity/Branding II (3)
ARTD 365	Packaging Design (3)
ARTD 468	Publication Design (2)

**Recommended Cognate Courses:**

JOUR 434	Media Law and Ethics (3)
MGMT 160	Small Business Management (3)
MKTG 351	Marketing (3)
MKTG 360, 374	Consumer Behavior, Advertising (3, 3)

**Major in Photography, A.S.**

*A minimum of 40 hours*

► **Required Core Courses (40 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTD 285	Color	2
ARTF 394	Professional Practices in Art	1
ARTH 277	Social History of Photography	3
ARTH 370	Modern and Contemporary Art	4
ARTP 150	Black & White Photography	3
ARTP 250+251	Digital Photo I,II	3+3
ARTP 252	Digital Photo Imaging	3
ARTP 299	Thesis Project	3
ARTP 350	Portrait Photography	3
ARTP 351	Product Photography	3
ARTP 352	Digital Darkroom	3

**Recommended Cognate Courses:**

JOUR 242, 434	Photojournalism, Media Law (2, 3)
MGMT 160	Small Business Management (3)

**Minor in Art**

*A minimum of 34 hours (10 upper-division hours)*

► **Required Courses (34 hours):**

ARTD 124+125	Design and Composition I,II	3+3
ARTD 285	Color	2
ARTF 121+122	Drawing Fundamentals I,II	2+2
ARTF 211	Three-Dimensional Design	2
ARTF 221	Life Drawing	2
ARTH 370	Modern and Contemporary Art	4

*At least one of the following courses:* 4

ARTH 115	History of Western Art I (4)
ARTH 116	History of Western Art II (4)

*At least two of the following courses:* 4

ARTF 210	Stained Glass (2)
ARTF 212	Ceramics I (2)
ARTF 226	Collage and Assemblage (2)
ARTF 320	Clay Sculpture (2)

*At least two of the following courses:* 4

ARTF 220	Acrylic Painting (2)
ARTF 310	Watercolor Painting (2)
ARTF 315	Encaustic Painting (2)
ARTF 326	Oil Painting (2)

*At least one of the following courses:* 4

ARTF 325	Printmaking- Silkscreen (2)
ARTF 330	Printmaking- Woodcuts and Etchings (2)

**Minor in Art History**

*A minimum of 31 hours (7 upper-division hours)*

► **Required Courses (29 hours):**

ARTH 115	History of Western Art I	4
ARTH 116	History of Western Art II	4
ARTH 277	Social History of Photography	3
ARTH 308	Asia in Art	3
ARTH 370	Modern and Contemporary Art	4

*At least 11 hours from the following:* 11

Additional ARTH courses

► **Required Electives (2 hours):**

*At least 2 hours from the following:* 2

ARTD, ARTF, ARTP, or MDIA courses

## Visual Arts

### The Rasmussen Art Gallery

*The Rasmussen Art Gallery, located in the heart of the campus mall, offers students and community a stimulating and enriching cultural dimension in the visual arts. The gallery's exhibitions provide exposure to contemporary work as well as to historically significant art.*

### Graphic Design

#### LOWER-DIVISION COURSES:

#### **ARTD 110** **2 W** **Design: Tools, Materials and Techniques**

Provides the student with fundamental experience and knowledge in the use of the basic materials, tools and processes necessary for graphic designers. Emphasizes hand skills, with assignments covering construction, presentation, book-arts, and other basic techniques.

#### **ARTD 124+125** **3+3 F+W** **Design and Composition I,II**

The basic principles and elements of naturalistic and nonrepresentational design. Stresses creative use of line, color, shape, texture, and space.

#### **ARTD 130** **3 F** **Fundamentals of Graphic Design**

A basic overview of the design process from conceptualization and visualization to the preparation of advertising and collateral materials for print.

#### **ARTD 140** **3 W** **Typography I: Foundations**

Study of letter forms with emphasis on typesetting and preparation of copy for typesetting and design. Prerequisite: ARTD 130.

#### **ARTD 150** **3 S** **Digital Studio I**

Preprint production techniques for print applications. Emphasis on presentation and technical skills and problem solving. Recommended prerequisite: ARTD 130.

#### **ARTD 253** **3 W** **Publication Technology**

Uses the Macintosh computer as hardware platform and Adobe InDesign®. Emphasis is on page layout. Introduction to formatting long documents. Use of multiple master pages; building color pages. Two lectures and one laboratory per week.

#### **ARTD 262** **3 W** **Identity/Branding I**

Emphasizes conceptual problem-solving in the design of corporate identity and collateral materials. Prerequisites: ARTD 130, 140, 150. Recommended prerequisite: ARTD 268.

#### **ARTD 268** **3 F** **Illustration I**

To cultivate the process, resources, and skills needed to create fundamental illustrations in association with graphic design. Applied rendering and illustrations using Adobe Illustrator® to create illustrations and graphics for print and web media. Prerequisites: ARTF 121+122; Macintosh competency.

#### **ARTD 285** **2 S** **Color**

The study and hand-on exploration of color, including color perception, properties of color, interaction of colors, color harmony, and color associations. Develops the student's ability to manipulate color for expressive and aesthetic purposes. Prerequisites: ARTD 124, 125

#### **ARTD 299** **3 S** **Thesis Project**

Individual project required of all associate-degree graphic design majors. Creation of a unified, accomplished body of work for exhibition in the Rasmussen Art Gallery or at another predetermined location on campus. Students completing more than one degree do a separate project for each degree earned. Qualifies for IP grading.

#### UPPER-DIVISION COURSES:

#### **ARTD 317** **3 F** **Interactive Design I**

Designing World Wide Web personal home pages and Web sites for clients using the Web as a delivery platform. Goes beyond development of a properly functioning site to emphasize creation of visually attractive and coherent presentations. For general students and art majors. Prerequisite: CPTR 105 or computer competency (Mac). Recommended prerequisites: ARTD 124, 125, 130.

#### **ARTD 318** **3 S** **Interactive Design II**

Advanced exploration of the integration of components utilized in web and multimedia applications authoring. Students use industry standard software such as Dreamweaver®, Fireworks®, and Flash® for producing interactive projects for internet, CD-ROM, information kiosk, or DVD. Students practice interactive storytelling, navigation metaphors, technical constraints, and usability. Topics include basic animation techniques, transitions, user interactivity, basic scripting, and interactive development process. Prerequisite: ARTD 317. Odd years.



**ARTD 361** **3 F**  
**Ideation**

Advanced design and presentation as applied to art direction and collateral materials. Prerequisites: ARTD 140, 150, 262. Odd years.

**ARTD 362** **3 F**  
**Identity/Branding II**

In-depth study of corporate identity and graphic standards programs. Includes identity design and usage in various print and collateral applications. Prerequisites: ARTD 140, 150, 262. Even years.

**ARTD 364** **3 S**  
**Illustration II**

Emphasis on rendering images for editorial and commercial assignments. Media include pen and ink and ink wash. Prerequisites: ARTF 221, ARTD 268.

**ARTD 365** **3 S**  
**Packaging Design**

The process of design and presentation as applied to packaging, the redesign of existing packaging and the creation of new product entries. Prerequisites: ARTD 140, 150, 262. Even years.

**ARTD 380** **2 W**  
**Junior Studio I**

Students explore their own area of interest specific to design. Students will be expected to be self-driven, work in their studios, find inspiration, and document their process to further their understanding of their discipline. Prerequisites: Junior class standing, formal admission to the BFA program.

**ARTD 381** **2 S**  
**Junior Studio II**

Students further explore their own area of interest specific to design. Students will be expected to be self-driven, work in their studios, find inspiration,

and document their process to further their understanding of their discipline. Prerequisite: ARTD 380.

**ARTD 396** **.2 F, W, S**  
**Colloquium**

Lecture/discussion series for BFA majors. Includes two lecture periods (one department-wide, one program specific), a museum day trip, a gallery opening, and a reflection paper. Repeatable for credit. Graded S/F.

**ARTD 415** **3 W**  
**Environmental Design**

Advanced study of how to plan and design the integration of visual communication into the three-dimensional environment. Students explore how static and interactive typography, graphics and images can be applied as both pragmatic and poetic solutions in accord with interior and exterior architecture, museum/gallery displays, retail and corporate environments. Even years.

**ARTD 460** **3 S**  
**Portfolio Development**

Creation of a professional-quality portfolio tailored to a job search, gallery search or graduate school application. Specific attention given to refining and polishing the content, form, and packaging. Additional areas include developing a personal identity system and assembling a set of self-promotional materials. Prerequisite: ARTF 394.

**ARTD 463** **3 S**  
**Typography II: Form and Communication**

Type styles, character, arrangement, and usage in the design of printed materials. Practical experience in preparation of type for print production. Prerequisites: ARTD 140, 150, 262. Odd years.

**ARTD 464** **3 S**  
**Digital Studio II**

Explores the preparation of digital files and desktop design. For advanced graphic design majors who understand the basic elements of design, typography, and print and who have Macintosh competency. Prerequisites: ARTD 150, 262.

**ARTD 465** **3 S**  
**Typography III: Expressive and Experimental**

Advanced study of typography concentrating on the expressive use of letterforms and text, and the exploration of experimental and progressive application of type and letterforms. Prerequisite: ARTD 463. Even years.

**ARTD 468** **2 W**  
**Publication Design**

An in-depth study of publication layout and design techniques. For advanced graphic design majors who understand the basic elements of digital file preparation, layout and design. Prerequisites: ARTD 464. Odd years.

**ARTD 480** **2 F**  
**Senior Studio I**

Students create the foundation for the production of the senior thesis project in preparation for major production and display in ARTD 481 and ARTD 499. Students will do research, mood boards, color/style palettes, and thumbnail explorations for their project. Prerequisites: ARTD 380-381.

**ARTD 481** **2 W**  
**Senior Studio II**

Students create the large-scale production of the senior thesis project, in preparation for refinements, display, and promotional work in ARTD 499. Prerequisite: ARTD 480.

## Visual Arts

### **ARTD 494** **1-3 F, W, S** **Internship**

An individualized contract agreement involving selected students, faculty, and employers to provide practical experience in graphic design in a professional setting. Thirty clock hours of experience required for each hour of credit. Repeatable for credit. Prerequisite: Formal admission to the BFA program or permission from the department chair. Graded S/F.

### **ARTD 495** **1-3 Arranged** **Independent Study**

Available in any area where additional study is desired. Approval of department chair and major advisor is required. Repeatable to a maximum of 6 credits.

### **ARTD 499** **3 S** **Thesis Project**

Individual project required of all baccalaureate degree graphic design majors. Students create a unified, original, and professional body of work for exhibition either in the Rasmussen Art Gallery or at another predetermined location on campus. Students completing more than one art degree do a separate thesis project for each degree earned. Qualifies for IP grading.

## Fine Art

### SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

### **ARTF 100W** **2 Su** **Acrylic Painting Workshop**

Workshop focused on acrylic painting techniques through a variety of subjects and styles. Offered only at Albion Field Station. Repeatable for credit.

### **ARTF 101W** **2 Su** **Watercolor Painting Workshop**

Workshop focused on watercolor painting techniques through a variety of subjects and styles. Offered only at Albion Field Station. Repeatable for credit.

### **ARTF 102W** **2 Su** **Oil Painting Workshop**

Workshop focused oil painting techniques through a variety of subjects and styles. Offered only at Albion Field Station. Repeatable for credit.

### LOWER-DIVISION COURSES:

### **ARTF 121+122** **2+2 F+W, W+S** **Drawing Fundamentals I,II**

Development of the student's ability to communicate and express creative ideas using line, shape, value, and texture. One lecture and one laboratory per week. ARTF 121 is prerequisite to ARTF 122.

### **ARTF 210** **2 W** **Stained-Glass Design**

Materials and techniques of stained-glass design, including copper foiling and leading techniques. One lecture and one laboratory per week.

### **ARTF 211** **2 F** **Three-Dimensional Design**

The perceptual, spatial, and structural principles of well-ordered three-dimensional forms. Assignments introduce techniques of modeling and assemblage. One lecture and one laboratory per week.

### **ARTF 212** **2 F, W, S** **Ceramics I**

Introduction to materials and techniques in creating hand-built and wheel-thrown ceramic forms. One lecture and one laboratory per week. Recommended prerequisite: ARTF 211.

### **ARTF 220** **2 F** **Acrylic Painting**

Introduction to painting with acrylics. Exploration of color and brush techniques through a variety of subjects and styles. One lecture and one laboratory per week. Even years.

### **ARTF 221** **2 S** **Life Drawing I**

Improvement of visual skills and accurate portrayal of human surface anatomy. One lecture and one laboratory per week. Prerequisites: ARTF 121 or 122.

### **ARTF 226** **2 W** **Collage and Assemblage**

The artistic use of papers, found objects, and other nontraditional media; historical examples and the creation of two- and three-dimensional projects. One lecture and one laboratory per week. Even years.

### UPPER-DIVISION COURSES:

### **ARTF 310** **2 F** **Watercolor Painting**

Fundamentals of watercolor in landscape, still-life, and nonrepresentational painting. Includes work both in studio and on location. One lecture and one laboratory per week. Recommended prerequisites: ARTF 121, 122 or 220. Odd years.

### **ARTF 314** **3 S** **Art for Children**

Provides an understanding of children's art and a knowledge of art materials and teaching techniques applicable to the child's levels of learning. Designed to provide in the life of the child the thrill of the visual and tactile uses of line, shape, value, color, and texture.

**ARTF 315 2 W**
**Encaustic Painting**

Materials and techniques of using pigmented wax as a painting medium on wood, canvas and other supports. Emphasis on exploring and inventing techniques, including layering and collage. One lecture and one laboratory per week. Recommended prerequisites: ARTF 121, 122 or 220. Odd years.

**ARTF 320 2 W**
**Clay Sculpture**

The design and techniques of creating sculptural forms in clay with additive and subtractive processes. Figurative and abstracted subject matter. One lecture and one laboratory per week. Recommended prerequisite: ARTF 211. Odd years.

**ARTF 325 2 W**
**Printmaking-Silkscreen**

The techniques of silkscreen printing including cut stencil and photostencil. One lecture and one laboratory per week. Prerequisite: ARTF 121 or 122.

**ARTF 326 2 W**
**Oil Painting**

Transparent and opaque oil painting techniques are studied in rendering still-lives, landscapes, and abstractions. One lecture and one laboratory per week. Recommended prerequisite: ARTF 121, 122 or 220. Even years.

**ARTF 330 2 S**
**Printmaking-Woodcuts and Etchings**

An introduction to the creation of prints through the relief process of woodcuts and the intaglio process of etchings. One lecture and one laboratory per week. Prerequisite: ARTF 121 or 122. Even years.

**ARTF 332 2 S**
**Monotype**

Combines painting and printmaking techniques by painting images on metal and plexiglass plates, then transferring them to paper with a hand-operated printing press. One lecture and one laboratory per week. Prerequisite: one quarter of drawing, painting, or printmaking. Odd years.

**ARTF 340 2 W**
**Ceramics II**

Ceramics techniques and processes at the intermediate level. One lecture and one laboratory per week. Prerequisite: ARTF 212. Even years.

**ARTF 341 2 S**
**Ceramics III**

Advanced study in creating ceramic forms, formulating glazes, and alternative firing techniques. One lecture and one laboratory per week. Prerequisite: ARTF 340. Even years.

**ARTF 346 2 S**
**Stone Sculpture**

Creation of three-dimensional forms using subtractive methods in stone. One lecture and one laboratory per week. Recommended prerequisite: ARTF 211. Odd years.

**ARTF 380 2 W**
**Junior Studio I**

Students explore their own area of interest specific to fine art. Students will be expected to be self-driven, work in their studios, find inspiration, and document their process to further their understanding of their discipline. Prerequisites: Junior class standing, formal admission to the BFA program.

**ARTF 381 2 S**
**Junior Studio II**

Students further explore their own area of interest specific to fine art. Students will be expected to be self-driven, work in their studios, find inspiration, and document their process to further their understanding of their discipline. Prerequisite: ARTF 380.

**ARTF 394 1 F**
**Professional Practices in Art**

Focuses on issues that graduating art majors will face whether practicing in the field of art or applying to graduate programs. Each student compiles a portfolio of artworks. Features guest speakers.

**ARTF 396 .2 F, W, S**
**Colloquium**

Lecture/discussion series for BFA majors. Includes two lecture periods (one department-wide, one program specific), a museum day trip, a gallery opening, and a reflection paper. Repeatable for credit. Graded S/F.

**ARTF 422 2 W**
**Life Drawing II**

Advanced study in drawing the human figure. Emphasis on anatomy, expression, and development of a personal rendering style. One lecture and one laboratory per week. Prerequisite: ARTF 121 or 122. Odd years.

**ARTF 423 2 S**
**Portrait Drawing**

Advanced study in drawing a realistic rendering of the human head and features. One lecture and one laboratory per week. Prerequisites: ARTF 121 or 122. Even years.

## Visual Arts

### **ARTF 447** **2 S** **Sculpture**

The materials and techniques of using various media to create sculptural forms, both representational and nonobjective. One lecture and one laboratory per week. Recommended prerequisite: ARTF 211. Even years.

### **ARTF 461** **2 S** **Figure Painting**

Advanced study of color and composition with the human figure as subject matter. Emphasis on communicating expression and vitality. One lecture and one laboratory per week. Prerequisite: one quarter of painting or ARTF 221, 422 or 423. Even years.

### **ARTF 480** **2 F** **Senior Studio I**

Students create the foundation for the production of the senior thesis project in preparation for major production and display in ARTF 481 and ARTF 499. Students will do research, mood boards, color/style palettes, and thumbnail explorations for their project. Prerequisites: ARTF 380-381.

### **ARTF 481** **2 W** **Senior Studio II**

Students create the large-scale production of the senior thesis project, in preparation for refinements, display, and promotional work in ARTF 499. Prerequisite: ARTF 480.

### **ARTF 494** **1-3 F, W, S, Su** **Internship**

An individualized contract agreement involving selected students, faculty, and employers to provide practical experience in fine art in a professional setting. Thirty clock hours of experience required for each hour of credit. Repeatable for credit. Prerequisite: Formal admission to

the BFA program or permission from the department chair. Graded S/F.

### **ARTF 495** **1-3 Arranged** **Independent Study**

Available in any area where additional study is desired. Approval of department chair and major advisor is required. Repeatable to a maximum of 6 credits.

### **ARTF 499** **3 S** **Thesis Project**

Individual project required of all baccalaureate degree fine art majors. Students create a unified, original, and professional body of work for exhibition either in the Rasmussen Art Gallery or at another predetermined location on campus. Students completing more than one art degree do a separate thesis project for each degree earned. Qualifies for IP grading.

## History of Art

### LOWER-DIVISION COURSES:

### **ARTH 107** **3 W** **America in Art**

A study of architecture, graphic art, painting, photography, and sculpture in the United States from the colonial period to the present. Odd years.

### **ARTH 115** **4 F, S** **History of Western Art I: From Caves to Cathedrals**

Examination of architecture, sculpture, painting and decorative arts in Europe from the period before written language to the end of the Middle Ages. Organized chronologically and geographically, the lectures explore art's relationship to different cultures' ideas of death, the divine, nature, and gender/ethnic identity.

### **ARTH 116** **4 F, S** **History of Western Art II: Renaissance and Revolutions**

Examination of painting, sculpture, architecture, photography, graphic and textile arts from the 15th century to the 21st century, primarily in Europe and the United States. Organized chronologically, the lectures will address themes of vision and representation, the canon, patronage, the artistic personality, and gender/ethnic identity.

### **ARTH 260** **3 F** **Film History**

A history of motion picture technologies with emphasis on narrative cinema and the moving media. Covers the period of early expansion (1907-1918), D.W. Griffith and the development of narrative form, German, Soviet and Third World cinema and the theory of montage, the coming of sound and color, the ascent of Hollywood, the French New Wave, and the current "digital mania." Two lectures and one laboratory per week.

### **ARTH 264** **2 F** **History of Graphic Design**

The history of graphic design and visual communications from the development of ancient writing of the Sumerians progressing through 20th century advances in graphic design: major trends, developments, and influences. Students will be able to recognize, analyze, and understand important historical and world-wide cultural influences found in graphic design and visual communication. Even years.

### **ARTH 277** **3 F** **Social History of Photography**

Analysis of theories and techniques of major photographers in America and Europe from the inception of photography to the present.

**ARTH 278 3 W**

**Women in Art**

Female artists in the Western World from the Renaissance to the present, with particular focus on the 19th and 20th centuries. Prerequisite: ARTH 116. Even years.

UPPER-DIVISION COURSES:

**ARTH 308 3 W**

**Asia in Art**

An overview of art and architecture created in China, Japan, India, and Southeast Asia. Even years. Prerequisite: ARTH 115 or ARTH 116.

**ARTH 370 4 S**

**Modern and Contemporary Art**

The Avant-garde in European and American art from Manet to the present. Includes architecture, graphic art, painting, performance, photography, and sculpture. Prerequisite: ARTH 116.

**ARTH 495 1-3 Arranged Independent Study**

Available in any area where additional study is desired. Approval of department chair and major advisor is required. Repeatable to a maximum of 6 credits.

**Photography**

SERVICE COURSES:

*(Not applicable to a major or minor in this department)*

**ARTP 100W-101W 2+2 Su Digital Photography Workshop I+II**

Workshop focused on digital photography techniques and the transformation of photographic and non-photographic imagery on the computer. Offered only at Albion Field Station. Repeatable for credit. ARTP 100W or equivalent is prerequisite to ARTP 101W.

LOWER-DIVISION COURSES:

**ARTP 150 3 F, S Black & White Photography**

The basic equipment, experimental manipulations, and photographic skills involved in producing black and white negatives, contact prints, and enlargements; the proper use of various films, papers, and chemicals. Ninety minutes lecture, four hours laboratory per week.

**ARTP 250 3 W Digital Photo I**

An introduction to digital photography and digital camera operation. Covers lighting, composition, exposure, fundamentals of traditional photographic concepts, basic techniques in Adobe® Photoshop and Bridge. Ninety minutes lecture, four hours laboratory per week.

**ARTP 251 3 S Digital Photo II**

Advanced digital photography and digital dark room production techniques using Adobe® Photoshop. Covers photographing and capturing images, blending, stitching, HDR, black & white conversions and work flow. Ninety minutes lecture, four hours laboratory per week. Prerequisite: ARTP 250.

**ARTP 252 3 W Digital Photo Imaging**

Use of computer software tools and techniques to scan, alter and enhance photographs. Emphasis on artistic manipulation of digital images for graphic design and photographic applications. Ninety minutes lecture, four hours laboratory per week. Prerequisites: Macintosh computer competency, ARTP 150.

**ARTP 299 3 S Thesis Project**

Individual project required of all associate-degree photography majors.

Creation of a unified, accomplished body of work for exhibition in the Rasmussen Art Gallery or at another predetermined location on campus. Students completing more than one degree do a separate project for each degree earned. Qualifies for IP grading.

UPPER-DIVISION COURSES:

**ARTP 350 3 F Portrait Photography**

Development of fine art and commercial skills in black-and-white and color portraiture, including executive and group portraits, both in studio and outdoors. A 2 1/4 format camera is used. Ninety minutes lecture, four hours laboratory per week. Prerequisite: ARTP 251.

**ARTP 351 3 W Product Photography**

Use of 2 1/4 and 4 x 5 format cameras with studio lighting for product still life, architectural, and industrial applications. Ninety minutes lecture, four hours laboratory per week. Prerequisite: ARTP 251.

**ARTP 352 3 F Digital Darkroom**

Professionalism in color photography. Includes use of filters, business of photography and creating publishable photographs. Ninety minutes lecture and slide critique, four hours laboratory per week. Prerequisite: ARTP 251.

**ARTP 380 2 W Junior Studio I**

Students explore their own area of interest specific to photography. Students will be expected to be self-driven, work in their studios, find inspiration, and document their process to further their understanding of their discipline. Prerequisites: Junior class standing, formal admission to the BFA program.

## Visual Arts

### **ARTP 381** **2 S** **Junior Studio II**

Students further explore their own area of interest specific to photography. Students will be expected to be self-driven, work in their studios, find inspiration, and document their process to further their understanding of their discipline. Prerequisite: ARTP 380.

### **ARTP 396** **.2 F, W, S** **Colloquium**

Lecture/discussion series for BFA majors. Includes two lecture periods (one department-wide, one program specific), a museum day trip, a gallery opening, and a reflection paper. Repeatable for credit. Graded S/F.

### **ARTP 430+431** **2+2 W+S** **Digital Storytelling I,II**

Creation of an interdisciplinary collaborative project using techniques of rich media, including still photography, video recording, and sound and dialog. Collaboration between photography, drama, communication, and film and television. Must be taken in sequence. Prerequisite: ARTP 250, 251.

### **ARTP 452** **3 F** **The Fine Print I**

Advanced photography printing using a large format camera. Refined printing using cold-light enlargers and archival treatments. Ninety minutes lecture, four hours laboratory per week. Even years.

### **ARTP 453** **3 W** **The Fine Print II**

Second stage of refined printing with large format negatives. Ninety minutes lecture, four hours laboratory per week. Prerequisite: ARTP 452. Even years.

### **ARTP 454** **3 F** **Advanced Portraiture**

An advanced approach to what comprises a portrait. Both medium and large format cameras are used. Ninety minutes lecture, four hours laboratory/field work per week. Prerequisite: ARTP 350. Odd years.

### **ARTP 455** **3 W** **Architectural Photography**

Use of 2 $\frac{1}{4}$  and 4 x 5 cameras to record interiors and exteriors of architectural subjects. Lighting techniques blend natural light and flash. Ninety minutes lecture, four hours laboratory/field work per week. Odd years.

### **ARTP 480** **2 F** **Senior Studio I**

Students create the foundation for the production of the senior thesis project in preparation for major production and display in ARTP 481 and ARTP 499. Students will do research, mood boards, color/style palettes, and thumbnail explorations for their project. Prerequisites: ARTP 380-381.

### **ARTP 481** **2 W** **Senior Studio II**

Students create the large-scale production of the senior thesis project, in preparation for refinements, display, and promotional work in ARTP 499. Prerequisite: ARTP 480.

### **ARTP 494** **1-3 F, W, S** **Internship**

An individualized contract agreement involving selected students, faculty, and employers to provide practical experience in photography in a professional setting. Thirty clock hours of experience required for each hour of credit. Repeatable for credit. Prerequisite: Formal admission to the BFA program or permission from the department chair. Graded S/F.

### **ARTP 495** **1-3 Arranged** **Independent Study**

Available in any area where additional study is desired. Approval of department chair and major advisor is required. Repeatable to a maximum of 6 credits.

### **ARTP 499** **3 S** **Thesis Project**

Individual project required of all baccalaureate degree photography majors. Students create a unified, original, and professional body of work for exhibition either in the Rasmussen Art Gallery or at another predetermined location on campus. Students completing more than one art degree do a separate thesis project for each degree earned. Qualifies for IP grading.

## Film and Television Production

### LOWER-DIVISION COURSES:

### **MDIA 131** **3 W** **Elements of Cinematic Storytelling**

Introduction to the basic elements of cinema and related motion-picture technologies. Emphasis on developing skills of critical analysis and appreciation of the "language" of cinema; craft, genre, style, and technique. Historical overview of cinema classics and innovative visionaries of the medium. Introduction to roles and responsibilities involved in motion-picture technologies (e.g., scriptwriting, directing, cinematography, editing, lighting, sound direction, etc.). Lectures, discussion, and intensive viewing labs.

**MDIA 140** **2 S**  
**Short Scriptwriting**

Techniques and practice in writing the short media script. Fundamentals of short scripting, outline, structure, and brief theme development for PSA's, short film and video features, broadcast and infomercials. Includes practical development of the students' knowledge of screenwriting software programs. Student work will ideally be integrated into other media production courses requiring short scripts.

**MDIA 152** **2 F**  
**Introduction to Filmmaking**

An overview of the filmmaking process from concept to distribution with emphasis on how to make an independent film. Includes both the artistic and business principles of filmmaking. Intended for Film and Television majors and others interested in understanding how independent films are created. Students make their own short film projects during this class. Recommended prerequisite: CPTR 105 or Macintosh computer competency. One lecture and one laboratory per week.

**MDIA 158** **2 S**  
**Introduction to Television Production**

Survey of three types of media production from a Christian perspective: broadcast production, documentary production, and digital film production. Includes an overview of the positions that make up the production team, and the technologies that make the production happen. One lecture and one laboratory per week.

**MDIA 231** **2 W**  
**Sound Design I**

Introduction to audio recording theory and techniques for broadcast, film, and studio environments. Concepts such as multitrack mixing, voice-over recording, sound effects, editing, and wave-form processing are studied and practiced using current industry-standard audio equipment. Focus on learning industry-standard audio editing software. One lecture and one laboratory per week. Prerequisite: MDIA 256.

**MDIA 232** **2 S**  
**Sound Design II**

Focus on post-production sound. Includes audio dialogue replacement (ADR), sound effects recording (Foley), music mastering, pre-mix track preparation, final sound mixing and creation of a Dolby 5.1 surround mix using industry standard software and hardware. One lecture and one laboratory per week. Prerequisites: MDIA 131, 140, 152, 158, 231.

**MDIA 246+247** **4+4 W+S**  
**Screenwriting I,II**

Fundamentals of screenwriting: structure, character and scene development, conflict, locale, theme, script outline and story conception. Includes practical development of the student's knowledge of screenwriting software programs. In MDIA 246, students produce one act of a full-length screenplay. In MDIA 247, students rewrite the first draft and move towards the creation of the final draft of a full-length screenplay (90 to 120 pages in length). Must be taken in sequence. Prerequisite: ENGL 102.

**MDIA 255** **2 F**  
**Animation**

Practical understanding of video animation, as used in contemporary films and video productions. Introduction to traditional animation, including history and original production techniques. Hands-on instruction using the latest software animation programs including Adobe After Effects, Flash, and Maya, with reference made to other programs including 3D Studio Max and Lightwave 3D. One lecture and one laboratory per week. Prerequisites: ARTF 121, 122. Even years.

**MDIA 256** **3 W**  
**Editing**

Explores the history, theories, and techniques of film and television editing. Students learn to create meaning and emotion through the juxtaposition of moving images and the art of making the edit. Practical training includes learning to log, digitize, edit, and prepare footage for distribution using a nonlinear editing system (Apple Final Cut Pro®). Macintosh computer proficiency is required. Two lectures and one laboratory per week.

**MDIA 258** **3 F**  
**Motion Graphics**

Using the latest off-the-shelf software, students learn to create still and animated two-dimensional graphics for show opens, title sequences, image enhancements, and compositing. Emphasizes understanding the tools available, including After Effects® and Motion® software. Two lectures and one laboratory per week.

## Visual Arts

### **MDIA 265** **2 F** **Storyboarding & PreVisualization**

Introduction to basic terminology, tools and media of storyboarding and pre-visualization. Development of thumbnails, storyboards, scripts, and other conceptual presentation processes. Considerations and concepts of narrative flow, pacing, and staging. Prerequisites: ARTF 121, 122, 221, MDIA 140, 270.

### **MDIA 270** **3 W** **Cinematography I**

Production outside the studio. Includes microphone selection and placement, working with available light, location management, expedition planning, and camera control. Job markets targeted include news gathering, documentary, mission adventure videos, and others. One lecture, one viewing session, and one laboratory per week. Prerequisites: ARTP 150 or 250, MDIA 131, 256.

### **MDIA 271** **3 S** **Cinematography II**

Theory of and practice in using professional lighting equipment and natural lighting, along with camera exposure control, to achieve various moods and effects. One lecture, one viewing session, and one laboratory per week. Prerequisite: MDIA 270.

### **MDIA 289** **3 S** **Thesis Project**

Completion and presentation of an independent film project. Proposals must be pitched to a department review panel for approval. Qualifies for IP grading.

### UPPER-DIVISION COURSES:

### **MDIA 341+342+343** **3+3+3 F+W+S** **Group Production I,II,III**

A three-part series in which students work together as a collaborative team to create a film (narrative or documentary) or television project. The series is intended to allow students to apply their previously acquired skills to a project as a team and prepare them for their thesis project. Two lectures and one laboratory per week. Must be taken in sequence. Prerequisites: MDIA 131, 140, 152.

Repeatable for credit under different topics. Topic options are the following:

*Documentary Production*  
*Film Production*  
*Television Production*

### **MDIA 350** **3 S** **Directing**

Directing of an independent film, documentary, or episodic television program. Director's role in the filmmaking process, including preparing script for production, casting a project, working with actors during rehearsal, working with the crew on set, and understanding the director's role as "auteur" or author of a film. Two lectures and one laboratory per week. Prerequisites: ARTH 260, MDIA 256, 270, 271.

### **MDIA 355** **3 S** **Marketing and Distribution**

An exploration of film and television marketing and distribution with an emphasis on how to secure a distribution deal for an independent production. Alternative forms of distribution are examined including self-distribution, DVD creation, and online distribution. Students learn how to create their own DVDs using Apple DVD Studio Pro®. Two lectures and one laboratory per week. Macintosh computer proficiency is required.

### **MDIA 396** **.2 F, W, S** **Colloquium**

Lecture/discussion series for BFA majors. Includes two lecture periods (one department-wide, one program specific), a museum day trip, a gallery opening, and a reflection paper. Repeatable for credit. Graded S/F.

### **MDIA 487+488+489** **2+2+2 F+W+S** **Thesis Project I,II,III**

A film or television project produced and completed during the senior year that incorporates the creative, technical, and business skills learned throughout the major. The film, documentary, or television project will be presented at the Senior Film Festival held at the end of the year. Proposals must be pitched to a department review panel for approval at the beginning of the senior year.

### **MDIA 494** **3 F, W, S, Su** **Internship**

Planned, coordinated, and supervised work experience in an industry allied with film or television production. A minimum of fifty hours of verified work experience required for each hour of credit. Repeatable to a maximum of 12 credits. Qualifies for IP grading. Prerequisite: Formal admission to the BFA program or permission from the department chair. Graded S/F.

### **MDIA 495** **1-3 Arranged** **Independent Study**

Available in any area where additional study is desired. Approval of department chair and major advisor is required. Repeatable to a maximum of 6 credits.



Pacific Union College is incorporated under the laws of the State of California as a nonprofit religious institution. A portion of its income is derived from gifts and grants. These sources of funding help keep your cost at the lowest possible level consistent with adequate facilities and competent instruction. Because of uncertain economic conditions, the college must reserve the right to increase tuition rates, rents, and fees during the school year.

## Estimate of Expenses

The following amounts represent the estimated cost of full-time attendance during the fall, winter, and spring quarters of the 2012-2013 school year:

	<i>One Year</i>	<i>Each Quarter</i>
Tuition & fees* (12-17.5 hours)	\$25,740	\$8,580
Technology fee	300	100
Student Health Plan**	600	200
Residence-hall Rent	4,260	1,420
Minimum Board	3,015	1,005
<b>Total</b>	<b>\$33,915</b>	<b>\$11,305</b>

*Books and school supplies are purchased on a cash basis at the College Bookstore.*

\* For students enrolled for six credit hours or more, tuition and fee charges include tuition, Student Association fees, and graduation fees.

\*\* Students enrolled for six credit hours or more on the Angwin campus are required to participate in the Student Health Plan.

## Financial Requirements for 2012-2013\*

### Tuition — Quarter Fee Schedule

The tuition rates reflect a charge of \$750 per quarter hour up to 11.5 hours. Tuition for 12 to 17.5 hours is \$8,580. All hours over 17.5 are charged at \$572 per hour.

### Miscellaneous Fees

<i>ACT Residual Testing</i> .....	\$40.00
<i>Application Fee (first time only)</i>	\$30.00
<i>Automobile Campus Registration Fee</i>	
Community students,	
car, per year .....	\$33.00
Community students,	
additional car, per year .....	\$18.00
Community students,	
motorcycle, per year .....	\$15.00
Residence-hall students,	
car, per year .....	\$69.00
Residence-hall students with	
General Permit, car, per year	
.....	\$54.00
Residence-hall students,	
motorcycle, per year .....	\$25.00
<i>Course Waiver Exam</i>	\$25.00 per exam
<i>Credit by Exam</i>	\$25.00 per credit hour
<i>Examination Fees</i> (standardized)	
Fees are charged to cover costs of such standardized tests as may be required by individual departments.	
<i>Film and Television Production Fees</i>	
(See Film and Television Production Fees Section)	
<i>Flight Training Fees</i>	
(See Flight Training Fees Section)	

### Laboratory and Class Fees

Fee varies with class. Breakage payment as circumstances may require.

*Late Registration Fee* ..... \$25.00  
(Payable in cash when you register; \$35.00 if billed to your account)

*Lost Residence-hall Key or Replacement*..... \$50.00

*Lost Student I.D. or Replacement*..... \$12.00

*Private Music Lesson Fee*  
(see Music Charges section)

*Nursing Fees*  
(see Nursing Fees Section)

*Senior Citizen (65 yrs. & older) Rates*

Non-Participation .....	N/C
Audit Credit .....	\$75.00 per hour
Full Credit .....	\$100.00 per hour

*These special rates are available to senior citizens on an "empty-seat" basis. Regular degree students paying full tuition have priority.*

### Skiing Fees

Inquire at Exercise Science and Nutrition Department

*TEAS Assessment (Nursing) ....* \$40.00

*Technology Fee ....* \$100.00 per quarter

*Transcript of Credits* ..... \$25.00

For this one-time fee, billed at first enrollment, a student may request up to twenty-five transcripts without additional charge. Additional copies beyond the first twenty-five are \$5.00 per copy.

\*Note: A supplement with financial information for 2013-2014 will be available in Spring 2013.

## Financial Information

### Payment Information

Payment for the tuition, room, and board expenses is to be made by:

September 15	Fall Quarter
December 15	Winter Quarter
March 15	Spring Quarter

You may pay in person, by mail, or online at <https://webadvisor.puc.edu> with your Lantern user name and password. Electronic checks, American Express, Discover Card, MasterCard, and Visa are accepted.

### Billing Procedure

As a student at Pacific Union College you have two accounts, your basic education account (covers tuition, room and board) and your miscellaneous account (covers other charges through the year, such as meal costs in excess of the minimum, private music lessons, course-overload charges, library fines, etc.).

You pay your basic education account charges on the basis of your payment plan with the school. Your miscellaneous account charges are to be paid each month upon receipt of the statement.

A late charge is assessed for any account that remains unpaid beyond 30 days.

### Financial Clearance

Students who have been admitted to the college may register for classes in advance. A financial restriction is placed on the student's registration 30 days prior to the start of each quarter. During this period, students are required to obtain financial clearance from the Student Financial Services Office. Financial clearance is defined as completing a financial plan with the Student Financial Services Office and making the scheduled payment(s). A student who does not obtain financial clearance by 4:00 p.m. on the second day of classes for the current quarter will have their registration cancelled. For further information, see the section entitled "Academic Information and Policies" in this catalog.

### Room Reservation Fee

A \$150 room reservation fee is required before a room assignment can be confirmed. The fee is refundable if a cancellation is received at least 21 days prior to the first day of classes. When an application to the college is withdrawn prior to the refund deadline, the room reservation fee is refunded in full upon written request to the appropriate residence hall dean. When residence hall occupancy is terminated, the fee is applied to the student account.

Current students in residence with a room reservation fee on

file may designate a room preference before the end of the current school year. Specific room assignments for new students are made at the discretion of the residence hall dean with attention to class standing and the date the fee is received.

## Financing College

If you elect one of these plans, you should complete arrangements with your Pacific Union College financial counselor thirty days before the school term begins.

### Tuition Guarantee Plan

*Provisions of the Plan:*

1. Under this plan, the tuition cost in effect at the time of the first payment agreement will remain in effect until graduation, provided you are enrolled full-time continuously (except summers). (Student missionaries and Taskforce workers may be granted a one-year leave of absence.) This discount is only available to students without need-based grants or any loans.
2. Prior to or on September 15, you must pay total estimated costs (including room and board) for the year.
3. As a participant in this plan you are eligible for a 2% cash discount on the total estimated costs only during the first year of participation or if tuition is not increased in subsequent years.
4. Any money you earn from campus employment is paid directly to you. These earnings do not qualify as a reduction in the amount to be paid.
5. Costs in excess of the total estimated costs paid will be billed monthly. You must pay them on a monthly basis.
6. Should your actual costs be less than the estimated amount paid, the credit will be refunded after June 25.

This plan guarantees *only the tuition rate*, not any other charges, including but not limited to the room and board charges and any fees assessed after the beginning of the school year. If you elect this plan, you (or your parents or sponsor) must prepay each year the total estimated costs, which include room and board and other fees at the current rate.

### Cash Discount

*Provisions of the Plan:*

1. Cash discounts will be applied as follows: 2% discount of the total advance payment for each quarter in residence.
2. Cash discounts will be applied if total estimated costs are remitted by:

September 15	for Fall Quarter
December 15	for Winter Quarter
March 15	for Spring Quarter

**Monthly Payment Plan**

*Provisions of the Plan:*

- 1.** After deduction of financial aid and scholarships from the total estimated costs, the remainder may be paid in nine equal payments beginning September 15th and on the 15th of each successive month through May.
- 2.** The responsible party receives a monthly billing.
- 3.** A late fee will be charged on accounts that remain unpaid beyond 30 days. Students/families who make the scheduled payments on a timely scheduled basis will not be charged the late fee.
- 4.** Students are encouraged to complete the required forms for financial aid prior to the start of the quarter. Students who are granted provisional financial clearance will be given five (5) weeks after the start of the quarter to submit the required documents. Required documents are:
  - 1.** processed FAFSA,
  - 2.** Pacific Union College Financial Aid Application, and
  - 3.** any other documents required to process a financial aid award.

**Family Discount Plan**

*Provisions of the Plan:*

- 1.** For a family with two dependent students attending the college at the same time, a discount of \$200 per student per quarter is given; for a family with three or more, the discount is \$250 per student per quarter.
- 2.** If you are in a family qualifying for this discount, you also receive the benefits of any of the other payment and discount plans offered by the college for which you qualify.

**Financial Aid Programs**

The basic premise of the federal and state student aid programs is that you and your family have the primary obligation to meet your cost of attendance to the extent that you and they are able to do so. If you have further financial need, you may apply for financial aid, which is generally made available through grants, loans, and student employment.

The following definitions are given to clarify financial aid:

**Cost of Attendance:** Tuition, fees, room and board, books and supplies, personal expenses (laundry, clothing, etc.), and required travel.

**Financial Aid:** Financial resources available to meet financial needs, resources such as scholarships and grants, which are not repaid; loans, usually at favorable interest rates and with extended repayment periods; and part-time student employment.

**Expected Family Contribution (EFC):** The information reported on your FAFSA is used to calculate your EFC. The formula used to calculate your EFC is established by law and is used to measure your family’s financial strength on the basis of your family’s income and assets. The EFC is used to determine your eligibility for federal student aid and indicates how much money you and your family are expected to contribute toward your cost of attendance.

**Financial Need:** The difference between cost of attendance and the EFC.

**Scholarships:** Outright gifts awarded for achievement and leadership.

**Grants:** Outright gifts, based on financial need.

**Loans:** Financial assistance which must be repaid, usually with favorable interest rates and long-term repayment schedules.

**Independent Student:** For federal and state student aid program purposes, you are considered independent if you

- 1.** are 24 years of age or older on or before December 31 of the award year,
- 2.** are a veteran of the U.S. Armed Forces,
- 3.** are an orphan or ward of the court,
- 4.** have a legal dependent other than a spouse,
- 5.** are a married student, or
- 6.** are a graduate/professional student.

**Free Application for Federal Student Aid (FAFSA):** The application form used to determine your financial need. The FAFSA is available at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).

**Financial Aid Application (FAA):** Pacific Union College’s supplemental form to apply for financial aid. This is available at the Student Financial Services Office, or at <https://www.puc.edu/campus-services/student-finance/financial-aid-application>.

**Eligibility for Financial Aid**

To receive aid from federal student aid programs, you must:

- 1.** demonstrate financial need (except for certain loans),
- 2.** have a high school diploma or equivalent,
- 3.** be accepted to attend Pacific Union College,
- 4.** be working toward a degree or certificate in an eligible program,
- 5.** be a U.S. citizen or eligible noncitizen,
- 6.** have a valid Social Security number (unless if you’re from the Republic of the Marshall Islands, the Federated States of Micronesia, or the Republic of Palau),
- 7.** register with the Selective Service if required,
- 8.** maintain satisfactory academic progress once in school,

## Financial Information

- 9.** certify that you are not in default on a federal student loan and do not owe money on a federal student grant, and  
**10.** certify that you will use federal student aid only for educational purposes.

**Satisfactory Academic Progress.** To be eligible to receive federal, state, and/or institutional financial aid at Pacific Union College, you must maintain satisfactory academic progress, which is defined as follows:

**Course Load.** To be a full-time student, you must register for at least 12 hours and complete at least 10 hours per quarter. To complete a bachelor's degree in four years, you must complete an average of 16 hours per quarter. (Financial aid is available during the summer if you are taking at least 9 hours and will graduate at the end of summer quarter.)

### For Four-year Degree

By the end of	Credit to be completed:
3 quarters	39 hours
6 quarters	78 hours
9 quarters	117 hours
12 quarters	156 hours
15 quarters	all degree requirements

### For Two-year Degree

By the end of	Credit to be completed:
3 quarters	36 hours
6 quarters	72 hours
9 quarters	all degree requirements
12 quarters	all A.S. Nursing requirements

**GPA.** You must earn a minimum quarter GPA of 2.0 and a cumulative GPA of 2.0 to qualify for financial aid. To be eligible for campus grant money, bachelor's degree students must satisfactorily complete 39 hours in three consecutive quarters; two-year degree students must complete 36 hours in three consecutive quarters.

In calculating the GPA and evaluating progress toward completion of a degree:

**"I"** (Incomplete) and **"IP"** (in progress) carry no grade points and are not computed in the GPA.

**"NR"** (No grade reported) carries no grade points and is not computed in the GPA.

**"W"** (Withdrawal) is not computed in the GPA, nor is the course considered to be completed satisfactorily.

A course repeated at Pacific Union College to improve the GPA is counted only once toward the total credit hours required for graduation. Only the better grade is included in the GPA.

**Time Frame for Progress Toward a Degree.** If you receive financial aid, you should carefully adhere to the requirements of your major or other program to ensure completion on time. You must be in compliance with the tables above, which indicate the time for a first-year student to qualify for a degree. Financial aid for students in other classifications will be prorated.

**Satisfactory Academic Progress Review.** At the end of each quarter the Student Financial Services Office reviews the academic progress of each student. If while receiving financial aid you are found to be in violation of the hour and/or GPA requirements, your financial aid could be immediately suspended. At the end of the third quarter, campus financial aid may be suspended if the 39/36 hour requirement has not been met.

If your financial aid is suspended, before it can be reinstated you must make arrangements with the Student Financial Services Office and with the Records Office to take the appropriate course load to satisfy the 39/36 hour and GPA requirements.

For any courses you take elsewhere, you must submit an official transcript to the Student Financial Services Office and the Records Office three weeks before the beginning of the quarter for which financial aid is sought, so that your eligibility may be determined.

**Part-Time Students.** Financial aid may be available to part-time students as follows: three-quarter time (9-11.5 hours) and half-time (6-8.5 hours). You must declare less than full-time status to your financial counselor prior to the beginning of the quarter. Pacific Union College Campus Grant money is available to full-time students only. Additional information is available from your financial counselor.

**Transfer Students.** Transfer students are eligible for financial aid during their first quarter at Pacific Union College and are subject to the same satisfactory academic-progress policies as other Pacific Union College students. Credits earned prior to enrolling at Pacific Union College are not considered when determining academic progress. Transfer credit may be accepted to make up a deficiency. Before registering as a transfer student, you must consult the Records Office to determine whether or not Pacific Union College will accept your transfer credits.

**Appeal Procedures.** The following appeal procedures are available if you are ever deemed not to be making satisfactory academic progress. If you are in this category, you may receive aid for the coming quarter upon approval of a written petition to the Financial Aid Committee at the Student Financial Services Office.

This petition must

1. describe the reasons for not making satisfactory progress,
2. outline a program for correcting the problem, and
3. list an approved, attainable class schedule, signed by your academic advisor and a representative from the Teaching and Learning Center, for the following quarter.

**Financial Aid Suspension.** If you do not make satisfactory academic progress for the petitioned quarter, you will be placed on Financial Aid Suspension, a status that terminates financial aid. If your financial aid is suspended, you may appeal the suspension in writing to the Financial Aid Committee at the Student Financial Services Office.

The Financial Aid Committee will review the appeal and determine whether the suspension is justified. You will be advised of the decision in writing.

If the appeal is approved and aid is reinstated for 1 additional quarter, you must:

1. begin the quarter with a minimum of 12 hours, complete at least 10 hours, and
2. attain a GPA for the quarter of at least 2.00 and sufficient to bring the cumulative GPA to at least 2.00.

If you do not meet the above requirements, financial aid will be suspended without recourse until you are able to demonstrate your ability to succeed with the appropriate course load and achieve the appropriate GPA.

### Types of Aid

Financial aid consists of gift aid and self-help aid. Gift aid includes scholarships and grants, which require no repayment. Self-help includes loans, which must be repaid, and your employment earnings.

#### Gift Aid: Scholarships and Grants From the Federal Government

**Federal Pell Grant.** The Pell Grant is a federally-funded grant program designed to help eligible undergraduates earn the first baccalaureate degree. The amount is based on your financial need and the number of hours for which you are enrolled.

**FSEOG.** The Federal Supplemental Educational Opportunity Grant program is a federal program for undergraduate students with exceptional financial need. An FSEOG award is automatically considered for students applying for financial aid through Pacific Union College.

**BIA.** Bureau of Indian Affairs grants help native American

students meet their college costs. Applications for BIA grants and vocational assistance are available from the U.S. Bureau of Indian Affairs regional offices or from the Bureau's Office of Indian Education, 2800 Cottage Way, Sacramento, CA 95825.

#### From the State Government

**The California Student Aid Commission.** All Pacific Union College students who are California residents are encouraged to apply to the California Student Aid Commission for state-funded grant assistance. Eligibility requirements and application procedures are posted at [www.calgrants.org](http://www.calgrants.org). An annual application is required for all grants. Applications are due by March 2 for the school term starting in September.

**Cal Grants** are based on a combination of demonstrated financial need and academic achievement as evidenced by your GPA. Scholarship award amounts are determined by the CSAC. Both the FAFSA and the GPA Verification Form must be submitted by March 2.

#### From the College

##### Merit Awards

Contact the Enrollment Services Office or the Student Financial Services Office for information about College-awarded scholarships and awards.

A **Campus Grant** is a limited grant available to help meet a student's remaining financial need. Recipients must maintain satisfactory academic progress and carry a full course load; they may be required to live in College housing.

#### Self-Help: Loans

Most of the financial aid packages from the college's Student Financial Services Office include an expectation that the applying student will take a loan under one of several loan programs. Your student loan helps defray current costs until you can better afford to pay for them. Campus Grant money is available to you only if you also have a Federal Direct Loan or Federal Perkins Loan.

**Federal Direct Loan Program.** The most common type of loan for undergraduates is the Direct Subsidized Student Loan, provided by the federal government. To be eligible, you must qualify to receive federal student aid.

The interest rate is fixed each year. Repayment begins six months after you complete college or drop below half-time status. The servicer determines the repayment schedule. Interest rates and borrowing limits are posted at <https://studentloans.gov>. Loan origination fees are charged by Direct Loans.

If you have an undetermined financial need, you may apply for the Direct Unsubsidized Loan. The application process and

## Financial Information

loan amounts are the same as for the Direct Subsidized Loans. The difference between the two loan programs is that you are responsible for the interest accruing while in school if the loan is unsubsidized. You are not responsible for interest accruing for the subsidized loan.

**Parent Loans for Undergraduate Students (PLUS).** A PLUS loan is a federal loan available to parents who borrow on behalf of dependent students. Parents may borrow up to the full cost of education minus other financial aid. If a parent wishes the PLUS to be used for financial clearance, the completed PLUS application must be in the Student Financial Services Office to be certified prior to registration. If the PLUS is to be used to pay the entire cost of education, the Student Financial Services Office must have indication from Direct Loans that the parent loan has been approved. Otherwise the parent is expected to make the required payments for financial clearance.

**Federal Perkins Loans.** The Federal Perkins Loan program is funded mainly by the federal government but administered by the Student Financial Services Office.

The loans are repaid directly to Pacific Union College. No interest is charged while you remain in school as an undergraduate or continue education in a graduate or professional school. When you cease to be a student, there is a grace period before repayment begins.

The total repayment period is not to exceed ten years. Minimum payments of \$40 are due on the first of each month during the repayment period and are delinquent if not received by the 15th, at which time the account becomes subject to a late fee. Regular collection procedures are employed, including accelerating the payment of the total loan and referrals to collection agencies when a loan account is in default.

**Collegiate Loans.** A collegiate loan is funded by a program established by Pacific Union College. Loan amounts are limited to available funds allocated by the College for this program. The terms, interest rate, and payback requirements are similar to the Federal Perkins Loan program.

### Self-Help: Student Employment

**College Employment.** Many students work at the college to defray part of their school expenses by working an average of 15-18 hours per week.

The current levels of earnings are as follows:

Hrs./Wk.	Rate/Hr.	Minimum Income/Yr.
10	\$8.00	\$2,400
15	\$8.00	\$3,600
20	\$8.00	\$4,800

The college cannot guarantee how much you will earn.

Many students work in such service and industrial departments as Custodial Services, Dining Commons, Public Safety, Landscape, and Facilities Management. Others are employed as office workers, readers in academic departments or as residence hall assistants.

Campus employment is arranged through the Student Employment Office in Financial Services. If you seek work on campus, you must file an application with the Student Employment Office and be registered for at least eight hours of course work (except during the summer).

Electronic time clocks are used for recording hours worked. Student workers are paid by electronic funds transfer every two weeks. Department directors employing students determine wage rates within ranges established by College management. Hourly rates are in compliance with state and federal laws.

You may assign a portion of your wages to your account by completing a form available at the Student Financial Services Office. You may also request that tithe and/or church expense offerings be deducted from your earnings.

**Federal Work-Study Program.** If you qualify, a portion of your wages may be subsidized through the Federal Work-Study Program. Federal Work-Study is designed to broaden the range of meaningful employment. In order for you to be employed on the Federal Work-Study Program, you must have applied for financial aid and must be receiving financial aid (i.e., a Federal Pell grant, a Federal Perkins Loan, a Federal SEOG, etc.) awarded by the Student Financial Services Office, and must have an unmet financial need. (If you are employed in the Religion Department, you are not eligible to participate.)

*The type of financial aid offered to you depends upon the amount of financial need and the resources available. After family resources and outside resources (Cal Grants, Rotary Scholarships, etc.) are taken into consideration, a financial award is built in the following order:*

1. Federal Pell Grant
2. Federal Supplemental Educational Opportunity Grant
3. Cal Grant/Pacific Union College Scholarships/Tuition Assistance, etc.
4. Loan (Federal Direct Loan or Federal Perkins Loan)
5. Pacific Union College Campus Grant

If your award letter from the Student Financial Services Office includes a Pacific Union College Campus Grant, you must take a loan in order to qualify for the grant.

*Please note: It may be impossible for the college to fill your complete financial need. Also, it may be impossible for all of your Pacific Union College scholarship awards to fit into your FAFSA need figure.*

## Special Programs

Special programs are designed to help qualified students finance their costs of attendance. It is your responsibility to investigate and, if you qualify, to pursue these financial sources.

**Veterans' Benefits.** The Cal-Vet Educational Assistance Program may pay fees and a monthly stipend to students who qualify. For more information on these programs or on G.I. benefits, veteran's loans, or veteran's employment, contact the Department of Veterans Affairs or the veterans certifying official at Pacific Union College.

**State Aid to the Physically Handicapped.** Through its Bureau of Vocational Rehabilitation, the State of California provides financial assistance to students who have physical disabilities. This assistance may include an additional amount to help cover living costs. Students who may be entitled to this assistance should apply to the State Bureau of Vocational Rehabilitation.

## How to Apply for Financial Aid

1. Complete and submit the FAFSA at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). The FAFSA is necessary for determining your EFC and applying for federal student aid. Select Pacific Union College as one of the colleges to receive your Student Aid Report (SAR) using the college's Federal School Code 00125800. Upon receipt, review your copy of the SAR for accuracy.
2. To apply for a Cal Grant, legal residents of California must complete and submit the GPA Verification Form and the FAFSA by March 2. Obtain a Certificate of Mailing for each form to prove that you met the March 2 deadline. (Students currently receiving a Cal Grant do not need to file the GPA Verification Form.)
3. Complete a Pacific Union College Financial Aid Application (FAA) and return it to the Student Financial Services Office.
4. Send a federal tax return transcript and W-2s to the Student Financial Services Office, if requested.
5. Apply for admission to the college.

March 2 is the filing deadline for the FAFSA and GPA Verification Forms. April 15 is the priority processing deadline for receipt of the items listed above by the Student Financial Services Office, Pacific Union College, One Angwin Avenue, Angwin, California 94508-9707. Aid awards for applications received after these dates will be based on funds available, but may not cover the determined need.

## Delivery of Financial Aid

*Cal Grant A, B and C* tuition awards are placed as credit on student accounts each quarter.

Financial aid is posted directly to student accounts. Grant aid is handled entirely by the college and is posted directly to individual accounts.

Students receiving Federal Perkins Loans will have an advance posted each quarter. Direct and PLUS Loans are processed via electronic funds transfer directly to the student account.

Placing all monies on the student account provides an audit trail. Should any question arise regarding the account or the disposition of aid, the student account statements readily provide the necessary information.

If your aid exceeds the college charges, it is possible to arrange with the Student Financial Services Office for a cash withdrawal from the account at the end of the quarter.

Each quarter the same procedure is followed. Ordinarily, financial aid is credited at the beginning of each quarter. However, if you should have unforeseen financial problems with documented increased financial need, supplemental aid may be available.

A financial aid award packet will be sent to you if you have

1. completed financial aid applications (FAFSA, FAA) on file at the Student Financial Services Office;
2. been accepted for admission by the college;
3. sent requested supplemental financial documentation; and
4. responded to any further requests by the Student Financial Services Office.

The financial aid award packet contains your financial check sheet, an award letter indicating your financial aid and scholarships, appropriate loan documents and a payment agreement.

The payment agreement and award letter must be signed and returned to the Student Financial Services Office. This acceptance serves as authorization to prepare the federal student aid you will receive.

If you are interested in applying for financial aid, or if you receive financial aid, you should be aware of the following:

1. You are encouraged to discuss any financial problems with your financial aid counselor. Staff members want to help you achieve your academic goals.
2. Financial aid is not intended to help with financial obligations incurred prior to coming to the college. Thus, if you have car payments or substantial credit card or loan debt, it would be best to liquidate such obligations before applying for aid and coming to school.
3. You are encouraged to discuss academic problems with your

## Financial Information

academic advisors at an early date, or to seek special help from the Counseling Center and/or the Teaching and Learning Center.

**4.** Students receiving financial aid are responsible for doing as well as possible in their classes. If you find it necessary to change or reduce your course load, you must consult with your financial counselor regarding how the change in your course load affects your financial aid.

**5.** If you must withdraw from the college, first contact the Student Financial Services Office for a determination of refunds to be made to the aid funds and for information regarding disposition of any loans you may have.

**6.** You are responsible, as long as there is an unpaid balance, to keep the Student Financial Services Office informed of your address and to make the minimum monthly payments.

**7.** If you have Perkins or Collegiate loans and transfer to another school, or return to Pacific Union College after being out for more than six months, you may request the Student Financial Services Office to defer your loan payments until you are not attending school again. A similar deferment is possible on Direct Federal Student Loans, but you must contact the servicer for the proper paperwork.

**8.** Completion of a two-year associate degree or a four-year baccalaureate degree is based on an average of 16 hours of course work per quarter. Although you may take as few as 12 hours per quarter and still receive full aid, that aid could terminate before you complete your degree requirements if you average fewer than 16 hours per quarter.

**9.** Although you may take half- or three-quarter-time course loads, if you are receiving financial aid it is to your advantage financially to take a full academic load (average of 16 class hours per quarter). It costs no more to take 17.5 hours than 12 hours and the mandated reduction in financial aid for less than 12 hours of course work will generally be more than the reduction in tuition charges.

### Refund Policy

*Tuition Refunds* for a reduction in course load are made after you withdraw from a course through Lantern. When dropping all courses, you must complete a Notice of Withdrawal from School form. This form is available at the Records Office.

The amount of tuition refund to students who withdraw from any or all courses during a quarter is determined from the date the completed withdrawal form is filed with the Records Office.

The refund schedule is as follows:

- 1.** First through fifteenth school day of quarter - 100% refund;
- 2.** Sixteenth school day of quarter - 59% refund;
- 3.** 3% less for each school day thereafter;

- 4.** After the 29th school day - no tuition refund.

### Residence Hall Room Refund

When a room is occupied less than one quarter, a charge is made for the actual number of days (60 days per quarter) on a pro-rata basis as follows:

- 1.** First through seventh calendar days - 100% refund
- 2.** Eighth calendar day - 86.67% refund;
- 3.** Ninth through 60th calendar days - 1.67% reduction per day;
- 4.** After the 60th calendar day - no refund.

### Financial Aid Refunds

Since tuition, room, and board refunds are a reduction in your costs, a corresponding reduction must be made in financial aid that you may have received. Your account will be charged for the reduction in financial aid.

To be certain that all charges and credits have been entered on your account, the college reserves the right to withhold settlement of any balance due to you until the end of the next billing cycle (30 days after you leave campus).

### G.I. Bill

Students qualifying for the G.I. Bill should make this fact known to the veterans certifying official in the Records Office at the time of application to the college. The certifying official will supply the necessary forms and advise you of the procedures you must complete in order to receive the benefits to which you are entitled. The Department of Veterans Affairs (VA) determines eligibility for the G.I. Bill.

By prior arrangement with the VA, veterans may have an advance payment check available on registration day. Monthly payments are made by the VA directly to the student, with the following exception: the school receives payments for tuition and fees directly from the VA for students receiving benefits under the Post-9/11 G.I. Bill. These payments will be placed directly on the student accounts.

Veterans are required to follow the regular payment plan as listed for other students. For further information, see the section entitled "Veterans" in this catalog.

### International Students

International students are required to pay all costs for the upcoming quarter in advance. A deposit of \$1,000 is required before an I-20 is issued. This deposit will be held until the student ceases to attend Pacific Union College. The \$1,000 deposit can be applied to the student's final quarter at Pacific Union College. An additional \$150 fee is required from international students who plan to live in one of the residence halls. (See "Room Reservation Fee.")



International students on student visas do not qualify for loans and grants as detailed in the financial section. Campus employment, however, may be available. International students are expected to meet required payments for miscellaneous charges at registration and throughout the quarter just as other students do.

To determine the parents' or sponsor's ability to meet the educational costs without the need for financial aid, the applicant must also submit for review a bank statement showing a balance of \$43,932 US dollars drawn on an international bank. Further information is available from the Student Financial Services Office.

### **Insurance for International Students**

Because the cost of medical care in the United States is high in comparison to costs in other countries, *all international students must have and maintain major medical insurance coverage* while attending Pacific Union College. This insurance must have minimum coverage of at least \$150,000. The insurance may not discriminate on the basis of sex or age. The policy must be written in English.

Pacific Union College has a major medical insurance plan available for international students. At the time of registration students must purchase the medical insurance available through the college or provide a copy of the schedule of benefits of their own medical insurance policy, meeting or exceeding the minimum requirements specified by the college.

*Automobile insurance* is required in the United States to cover liability for damages in the event of an accident. Severe penalties are imposed on the owner and driver of an uninsured vehicle should an accident occur.

### **Adventist Colleges Abroad (ACA)**

Students considering enrollment in the ACA program should consult with their financial advisor at the Student Financial Services Office. Most scholarship and loan programs are available to students in the ACA program, especially those based on fund sources other than Pacific Union College. Financial aid, scholarships, or loans funded by Pacific Union College are not available to students in the ACA program. Educational scholarship assistance for denominational employees' dependents is available for all ACA programs.

### **Dining Commons**

The Dining Commons is operated on the cafeteria plan. If you live in one of the college residence halls, you are expected to take your meals in the Dining Commons. The quarterly minimum charge for board is \$1,005.

If you are a commuting student, or if you are enrolled in

less than a half-time study load, you may pay cash or use your regular ID card when using the Dining Commons. (You may be asked to pay a deposit before your ID card is activated for use in the Dining Commons.) All meal charges must be paid by the end of the next billing cycle.

### **Residence Halls**

Pacific Union College affirms the values to be gained from being primarily a residential college. Most students live in one of the seven gender-exclusive residence halls. Four women's residence halls can accommodate approximately seven hundred students; three men's halls, approximately six hundred.

By accepting admission, if you are an unmarried student aged 22 or younger you agree to live in a residence hall unless you apply for and are granted an exception (see "Student Housing").

To apply for a room in a residence hall, complete and submit a Residence Hall Information Card along with a \$150 room reservation fee. Room assignments for new students are made on the basis of class standing, the date the fee is received, and the discretion of the residence hall dean. If you change your mind and do not enroll at Pacific Union College, your full room reservation fee will be refunded, provided you notify your residence hall dean of your decision at least 21 days prior to the first day of classes.

The standard room rate is \$1,420 per quarter for double occupancy in each residence hall. When a student can be accommodated only through overcrowding, there will be a 25% reduction in the rental rate for each student in the room. If you choose to room alone, provided space is available, you will be charged an additional \$710 per quarter.

When a room is occupied less than one quarter, a charge is made for the actual number of days on a pro-rata basis. (See "Refund Policy".)

When you move out of the residence hall, the room will be inspected for reasonable cleanliness and normal wear. If necessary, charges for extra cleanup or repairs will be made at this time against your student account.

You will be issued a key upon occupancy of a residence hall room and will be expected to return it when you move out. Should the key be lost or not returned upon departure, a \$20 lost-key charge will be placed on your account.

Charges made to your long-distance telephone number cannot be billed on your monthly statement. (For further information, see the section entitled "Telephone Information" in this catalog.)

*The College is not liable for loss of your personal belongings or damage to them.* If you want insurance coverage for personal possessions, you should arrange for it with your personal insurance carrier.

## Financial Information

### Student Family Housing

Housing for married students and single parents is available on campus in two areas: Court Place and Brookside Park. To qualify for residence in these areas, applicants must be taking a regular course load and complete a minimum of 12 hours of class work with a GPA of 2.0 or above each quarter.

The Court Place apartments include fourteen one- and three-bedroom duplex units with a one-car carport space adjacent. Brookside Park includes forty one- to three-bedroom apartments with carport. All apartments are furnished with stove, oven, refrigerator, window coverings and carpet.

Assignments are made on a first-come, first-served basis, established by a \$10 nonrefundable deposit. Information about housing for married students or single parents is available from the Student Services Office, Pacific Union College, One Angwin Avenue, Angwin, CA 94508-9707.

*The College is not liable for loss of your personal belongings or damage to them.* If you want insurance coverage for personal possessions, you should arrange it with your personal insurance carrier.

### Student Health Care Plan

Pacific Union College requires that all enrolled, tuition-paying undergraduate students be covered under the PUC Student Health Care Plan. The plan is a self-funded health plan designed to provide assistance for essential health services and is funded by the health care fee charged to students. All students enrolled for at least 6 credit hours on the Angwin campus are required to participate in the plan. Students enrolled in Adventist Colleges Abroad, student missionaries, task force workers, and students enrolled in the off-campus ECE, BSM, and Nursing programs are excluded from coverage. Students must actively attend classes for 45 days following the date of enrollment in the plan. Eligible students may also purchase dependent coverage by contacting the Plan Administrator. For complete details on fees, effective dates, plan coverage, limitations, and exclusions, please see the Pacific Union College website: [www.puc.edu](http://www.puc.edu).

Medical insurance for international students is described in the Insurance for International Students section of the Financial Information.

If a student withdraws from all courses, the tuition refund policy in the Financial Information section of this catalog applies to the health care fee.

### Late Charge on Unpaid Accounts

If you have any account that remains unpaid beyond 30 days after the close of the quarter in which you left the college, a late charge will be assessed.

### Billing/Collections

When you leave Pacific Union College your loans and any unpaid tuition balance are transferred from the Student Financial Services Office to the Student Loans and Accounts Office for billing and tracking of repayment. Pacific Union College contracts with a third-party provider for this billing. They are not a collection agency but accounts are automatically placed in collections at 180 days of delinquency.

### Late Registration Fee

A late-registration fee of \$25 is assessed for failure to complete registration on time. This fee is paid at the Records Office in cash before you are considered fully registered. An additional \$10 is charged if you do not pay at the Records Office.

### Film and Television Production Fees

There are fees associated with classes in the Film and Television Production program due to the specialized equipment and supplies needed for the program. Fee charges are generated when you register for a Film and Television Production course that has a fee associated with it. For current fee information, contact the Visual Arts Department.

### Flight Training Fees

After you register for flight training, the amount needed to pay for ten hours of instruction per credit hour is applied to your flight account at the Parrett Field Flight Center. Expenses for the flight simulator, the airplane and the instructor may be charged to that account. When the tuition credit has been used, additional funds must be applied to the account to maintain a positive balance until the course curriculum has been completed. You may inquire at the Flight Center for cost estimates for your course. Aviation majors may expect to pay approximately \$6,000 per year, in addition to tuition, for simulator time and airplane rental fees. (Rates may be adjusted during the school year if there is a significant change in the cost of fuel, insurance, etc.)

Because of reduced tuition for summer courses, one-half tuition credit is applied to the flight account for instruction during the summer session.

### Ensemble Overload Scholarships

Ensemble overload Scholarships are available through the Music Department for students registered on a credit or audit basis who incur overload tuition charges as a result of enrolling in one or more of these courses.

## Music Charges

Private music lessons are offered on either a credit or no-credit basis. Lessons missed because of a student's irregular attendance may not be made up. If a student withdraws within the first two weeks on the quarter, the fee will be pro-rated. After that no refunds will be given.

### Private Lesson Charges for Non-Music Majors

*Credit Lessons-* For credit lessons, non-music majors will be charged a private music lesson fee of \$250 per credit hour (nine 30-minute lessons) in addition to the normal tuition charge.

*Non-Credit Lessons-* Non-credit lessons will be charged a \$350 private music lesson fee for nine 30-minute lessons.

### Private Lesson Charges for Music Majors

*Credit Lessons, Primary Instrument-* The private music lesson fee for primary instrument lessons will be waived for those music majors who are enrolled in Theory I (MUTH 121, 122, 123) or who have already taken these courses and are continuing to enroll in courses normally expected of majors. Additionally, at least 20 hours of documented practice hours per quarter are required to receive lessons at no charge and to maintain music major status. (See Music Student Handbook available from the Music Department Office for more information.) This fee waiver expires upon completion of degree requirements.

*Credit Lessons, Secondary Instrument-* For music majors taking a secondary instrument (excluding B. Mus. and Mus. Ed. taking MUSP 386), a \$125 private music lesson fee per credit hour will be charged in addition to the normal tuition charge. Additionally, at least 20 hours of documented practice hours are required or the full fee of \$250 per credit hour will be charged.

*Non-Credit Lessons-* Music majors taking non-credit lessons will be charged a \$250 private music lesson fee for nine 30-minute lessons.

## Nursing Fees

Nursing fee charges are generated when you register for a course that has a fee associated with it. Repeating a course also generates the fee. Fees cover items such as skills lab equipment costs, background checks, malpractice insurance, graduation nursing pin, and the initial testing and evaluation for the national tests given across the program. For current fee information, contact the Nursing Department.

## Skiing Class Fees

Skiing class fees are generated when you register for the course. For current rates, inquire at the Exercise Science Department. Recently the charges have been in the \$225-285 range.

## Technology Fee

Students enrolled for one or more credits on the Angwin campus pay a \$100 per-quarter technology fee.

## Auditing

Lecture-type courses that are audited are charged at the half-tuition rate. Independent study, ensembles, and participation-type courses may be audited, but full tuition is charged.

## Final Examinations

It is expected that all students take final examinations when scheduled, but students may petition the academic dean for exceptions. Exceptions are granted for documented emergency situations or arduous examination schedules (as defined by the academic dean). Any exceptions granted for other reasons will incur a charge of \$100 per rescheduled final examination.

## Graduation in Absentia

It is expected that all graduates will participate in the commencement services unless the Records Office is notified in writing that the student plans to graduate *in absentia*. Written application for exemption should be made no later than one week prior to commencement. A fee of \$25 is assessed to any graduate who is absent from graduation without having given prior notice.

## Transcripts and Diplomas

Each student at first enrollment is billed a one-time transcript fee of \$25. For this payment the student may request up to twenty-five transcripts without additional charge. Additional copies beyond the first twenty-five are \$5 per copy.

Each graduate is provided with one diploma free of charge. Replacement diplomas are \$25 per diploma.

Any costs incurred for rush mailing of documents are added. Inquire at the Records Office for current rates.

## ID Cards

Regular ID Cards provide identification for the following purposes: Dining Commons purchases, use of the college Library, transactions at the Financial Services Office and Records Office, special functions on campus, purchases by personal check at local businesses, and identification of students for campus security purposes.

Should a card be lost or stolen, notification must be made to the Financial Services Office before the student's obligation for any misuse of the card will end. A \$12 fee is charged to replace lost or stolen ID cards.

## Financial Information

### College Bookstore

Books and supplies may be obtained at the College Bookstore on a cash basis. Purchases made with a personal check require a driver's license or a DMV ID card. VISA, MasterCard, American Express, and the Discover group may also be used for Bookstore purchases. Students may charge Bookstore purchases to their College accounts.

### Vehicle Registration

Students with vehicles to be parked on campus property are required to register each vehicle with the Public Safety Department. When registering a vehicle, information from the following documents is required: current DMV registration with state of residence, driver's license, and proof of current insurance. A parking permit will be provided upon completion of the registration process; this permit is unique to the registered vehicle and must be displayed properly at all times. A vehicle registration fee of \$69 is assessed on all student cars (prorated to \$54 for residence-hall students who receive a general permit and to \$33 for community students); a vehicle registration fee of \$25 is assessed on all student motorcycles (prorated to \$15 for community students).

Pacific Union College assumes no liability or responsibility for any personal property while on college property. Parking on the campus is at your own risk. Pacific Union College reserves the right to close any area on campus as needed. Parking privileges may be revoked for excessive violations of California or Campus Vehicle Codes. Pacific Union College reserves the right to search a person's vehicle with reasonable cause. Vehicle registration information may be disseminated to appropriate college personnel or law enforcement authorities as necessary without notice.

### Banking and Security of Personal Possessions

You are advised not to keep money in your residence hall room. *The College does not assume any responsibility for the loss of money or other personal belongings left in rooms or elsewhere on campus.* Provision is made for students to deposit money for safe keeping at the Financial Services Office. The College does not provide banking services, and no interest accrues. (A charge of \$2 is made for reissuing lost passbooks.)

You may use bank debit cards to get cash at the College Market.

The Silverado Credit Union is conveniently located in the Angwin Plaza; students are invited to take advantage of its wide variety of financial services. An ATM is located at the SCU.

### Checks

Checks for a student's account should be made payable to Pacific Union College. Checks intended *for a student's personal use* should be made payable to the student and not to Pacific Union College. Returned checks are subject to a \$20 charge plus statutory penalties if action to collect becomes necessary.

### Cash Withdrawals

Students are expected not to request cash withdrawals from their accounts. Exceptions are ordinarily considered only in emergency situations or when a credit balance exists.

## Pacific Union College Presidents

### At Healdsburg

Sidney Brownsberger 1882-1886\*  
 William C. Grainger 1886-1894\*  
 Frank W. Howe 1894-1897\*  
 Roderick S. Owen 1897-1899\*  
 Marion E. Cady 1899-1903\*  
 Elton D. Sharpe 1903-1904\*  
 Warren E. Howell 1904-1906\*  
 Lucas A. Reed 1906-1908\*

### At Angwin

C. Walter Irwin 1909-1921\*  
 William E. Nelson 1921-1934\*  
 Walter I. Smith 1934-1943\*  
 Henry J. Klooster 1943-1945\*  
 Percy W. Christian 1945-1950\*  
 John E. Weaver 1950-1954\*  
 Henry L. Sonnenberg 1954-1955\*  
 Ray W. Fowler 1955-1963\*  
 Floyd O. Rittenhouse 1963-1972\*  
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Leticia Russell, M.A. Coordinator, Freshman  
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**H. Susi Mundy, M.A.**, *Registrar Emerita*. B.A., Southern Missionary College, 1966; M.A., J. F. Kennedy University, 1983. (1978)

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**Sherman A. Nagel, Jr., M.D.**, *Professor Emeritus of Biology*. B.A., Pacific Union College, 1939; M.D., D.N.B., Loma Linda University, 1940. (1969)

**Vernon P. Nye, Lit. D.**, *Professor Emeritus of Art*. Professional studies: Rochester Art Institute; Corcoran Art School; Ted Kautzky, Vermont; Eliot O'Hara, Washington, D.C.; Rex Brandt, Corona Del Mar. Member, Western Art Association. Lit.D., *honoris causa*, Pacific Union College, 1992. (1955)

**LeRoy H. Peterson, M.Mus.**, *Professor Emeritus of Music*. B.A., Columbia Union College, 1961; M.Mus., Peabody Conservatory, 1963. (1983)

**Burton A. Pontynen, Ed.D.**, *Professor Emeritus of Industrial Education*. B.S., Stout Institute, 1951; M.S., Stout Institute 1953; Ed.D., Arizona State University, 1973 (1953)

**William R. Price, M.A.**, *Associate Professor Emeritus of Technology*. B.A., Pacific Union College, 1967; M.A., Pacific Union College, 1969. (1976)

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**N. Gordon Thomas, Ph.D.,** *Professor Emeritus of History.* B.A., Andrews University, 1956; M.A., Ohio University, 1958; Ph.D., Michigan State University, 1967. (1967)

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**Thomas D. Lee, M.S.**, *Associate Professor of Education*. B.A., Union College, 1975; M.S., Walla Walla College, 1988. (2006)

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**Nancy Hoyt Lecourt, Ph.D.**, *Professor of English*. B.A., Loma Linda University, 1973; M.A., Loma Linda University, 1974; Ph.D., University of New Hampshire, 1999. (1979-1981; 1984)

**Wally D. Lighthouse, J.D., C.P.A.**, *Professor of Business Administration and Economics*. B.S., Pacific Union College, 1985; J.D., Southwestern University School of Law, 1991; C.P.A., Catonsville Community College, 1998. (2007)

**Helene Linzau, B.S.N.**, *Instructor of Nursing*. B.S., Loma Linda University, 1996; B.S.N., Pacific Union College, 2000. (2009)

**Charaine F. Lucas, M.S.**, *Assistant Professor of Education*. B.S., University of West Indies, 1991; B.A., Andrews University, 1994; M.S., Barry University, 2001. (2011)

**Joel H. Lutes, M.L.S.**, *Librarian*. B.A., Pacific Union College, 1981; M.L.S., San Jose State University, 1982. (1982)

**Linda E. Maberly, M.L.I.S.**, *Librarian*. B.A., Walla Walla College, 1977; M.L.I.S., University of California, Berkeley, 1982. (1987)

**Milbert C. Mariano, M.F.A.**, *Professor of Graphic Design*. B.S., Pacific Union College, 1991; M.F.A., Academy of Art College, 2000. (1995)

**Paul E. McGraw, Ph.D.**, *Professor of History*. B.A., Columbia Union College, 1983; M.Div., Andrews University, 1990; M.A., George Mason University, 1996; Ph.D., George Washington University, 2003. (2000)

**Tammy McGuire, PhD.**, *Professor of Communication*. B.A., Union College, 1984; M.A., Eastern Washington University, 1998; Ph.D., University of Missouri, Columbia, 2006. (2006)

**Doris Morgan, M.P.H.**, *Assistant Professor of Nursing*. B.S.N., University of Phoenix, 2001; M.P.H., Loma Linda University, 2008. (2010)

**Edwin L. Moore, M.A.**, *Associate Professor of English as a Second Language*. B.S., Pacific Union College, 1971; M.A., University of Hawaii, 1974. (1997)

**Gladys Muir, C.N.M., M.S.N.**, *Assistant Professor of Nursing*. B.S., Pacific Union College, 1983; M.A., Loma Linda University, 1986; C.N.M., Baylor College of Medicine, 1992; M.S.N., Samuel Merritt College, 1992. (2007)

## College Personnel

**Howard A. Munson IV, Ph.D.**, *Assistant Professor of History*. B.A., Walla Walla College, 2002; M.A., Portland State University, 2006; Ph.D., Washington State University, 2012. (2006-2007; 2012)

**Keith Neergaard, Ph.D.**, *Professor of Business Administration*. B.B.A., Pacific Union College, 1984; Ph.D., University of California, Irvine, 1994. (1988)

**Bryan D. Ness, Ph.D.**, *Professor of Biology*. B.S., Walla Walla College, 1983; M.S., Walla Walla College, 1985; Ph.D., Washington State University, 1992. (1989)

**Elaine P. Neudeck, M.A.**, *Assistant Professor of Physical Education*. B.A., Pacific Union College, 1976; M.A., Pacific Union College, 1978. (1991)

**John Nunes, Ph.D.**, *Associate Professor of Business Administration*. B.S., University of Tennessee, Chattanooga, 1981; M.B.A., Old Dominion University, 1983; Ph.D., Capella University, 2009. (2011)

**Roberto D. Ordonez, M.S.**, *Assistant Professor of Computer Science*. B.A., B.S., Southern Adventist University, 1995; M.S., Andrews University, 1997. (2004)

**Marie Pak, Ph.D.**, *Professor of Chemistry*. B.S., Indiana University, 1988; M.S., Ph.D., Albert Einstein College of Medicine, 1993. (1999)

**Laurie Parson, B.S.N.**, *Instructor of Nursing*. B.S., Utah State University, 1993; B.S.N., Walla Walla College, 1996. (2009)

**Robert A. Paulson, Jr., Ph.D.**, *Professor of Physical Education*. B.S., Andrews University, 1981; M.A., Sonoma State University, 1999; Ph.D., Andrews University, 2010. (1994)

**Liss Poiret, M.S.N.**, *Assistant Professor of Nursing*. A.S.N., Pacific Union College, 2001; B.S.N., Pacific Union College, 2003; M.S.N., Sonoma State University, 2010. (2006-2010; 2012)

**Melissa Henry Pratt, M.F.A.**, *Assistant Professor of Film and Television Production*. B.A., University of California, Santa Barbara, 2000; M.F.A., University of Texas, Austin, 2004. (2008)

**Asher Raboy, M.F.A.**, *Resident Artist of Music*. B.A., State University of New York, Binghamton, 1978; M.F.A., Carnegie-Mellon University, 1981. (2008)

**Michelle L. Rai, M.S.**, *Assistant Professor of Communication*. B.A., Pacific Union College, 1993; B.S., Pacific Union College, 1997; M.S., Golden Gate University, 2007. (2006)

**Maria S. Rankin-Brown, Ph.D.**, *Professor of English*. B.S., Pacific Union College, 1995; M.A., University of Northern Colorado, 1997; Ph.D., Indiana University of Pennsylvania, 2005. (2006)

**Leo S. Ranzolin, Jr., Th.D.**, *Professor of Biblical Studies*. B.S., Columbia Union College, 1981; M.Div., Andrews University, 1987; Th.M., Duke University, 1993; Th.D., Boston University, 2001. (1998)

**Sylvia B. Rasi Gregorutti, Ph.D.**, *Professor of Modern Languages*. B.A., Andrews University, 1989; M.S., Georgetown University, 1991; Ph.D., Georgetown University, 2002. (1993)

**Bruce E. Rasmussen, M.Mus.**, *Associate Professor of Music*. B.Mus., Andrews University, 1982; M.Mus., Andrews University, 1988. (2005)

**G. Rosalie Rasmussen, M.Mus.**, *Assistant Professor of Music*. B.Mus., Andrews University, 1980; M.Mus., Andrews University, 1981. (2005)

**Heather A. Reid, Ph.D.**, *Associate Professor of English*. B.A., Canadian Union College, 1997; M.A., University of Victoria, 2003; Ph.D., University of Victoria, 2011. (2008)

**James Robertson, M.S.**, *Associate Professor of Physics*. B.S., Southern College of Seventh-day Adventists, 1991; M.S., Florida State University, 1994. (2003)

**James H. Roy, Ed.D.**, *Professor of Education*. B.S., Pacific Union College, 1977; M.A.T., Andrews University, 1978; Ed.S., La Sierra University, 1989; Ed.D., La Sierra University, 2006. (2000)

**Shana L. Ruggenberg, R.N.**, *Ed.D., Professor of Nursing*. A.S., Pacific Union College, 1983; B.S., Pacific Union College, 1989; M.S.N., University of California, Los Angeles, 1993. Ed.D., University of San Francisco, 2008. (2000)

**Clifford M. Rusch, M.F.A.**, *Professor of Graphic Design*. B.S., Pacific Union College, 1980; M.F.A., Academy of Art University, 2004. (1987)

**Leticia Russell, M.A.**, *Assistant Professor of General Studies*. B.S., Pacific Union College, 1993; M.A., University of California, Davis, 1998. (2007)

**Vicki Saunders, M.S.**, *Instructor of Nutrition*. B.S., Loma Linda University, 1975; M.S., Ohio State University, 1979. (2011)

**A. Gregory Schneider, Ph.D.**, *Professor of Religion and Social Science*. B.A., Columbia Union College, 1971; M.A., University of Chicago, 1973; Ph.D., University of Chicago, 1981. (1977)

**Kathryn S. Schneider, R.N., M.S.,** *Assistant Professor of Nursing.* B.S., Southern College of Seventh-day Adventists, 1969; M.S., Loma Linda University, 1976. (1984)

**L. Jean Sheldon, Ph.D.,** *Professor of Religion.* B.A., Andrews University, 1982; M.A., Loma Linda University, 1984; Ph.D., Graduate Theological Union and University of California, Berkeley, 2002. (1995)

**Rajeev Sigamoney, M.S.,** *Instructor of Film and Television.* B.S., Johns Hopkins University, 1997; M.S., Johns Hopkins University, 2002. (2012)

**Donna Stretter, R.N., M.S.,** *Assistant Professor of Nursing.* A.S., Pacific Union College, 1967; B.S., Andrews University, 1970; M.S., Sonoma State University, 1996. (1999)

**Backil Sung, M.D., Ph.D.,** *Associate Professor of Biology.* M.D., Korea University, 1995; M.M.S., Korea University, 1997; Ph.D., Korea University, 1999. (2012)

**John Tagamolila, B.A., B.S.,** *Resident Artist of Film and Television Production.* B.S., Cornell University, 1999; B.A., Cornell University, 2000. (2011)

**Lary J. Taylor, M.B.A.,** *Associate Professor of Business Administration.* B.S., Union College, 1969; M.B.A., University of Maryland, 1976. (1978)

**Lynne E. Thew, B.A.,** *Instructor of Communication.* B.A., Pacific Union College, 1978. (2007)

**Tamara Tirado, R.N., M.S.,** *Assistant Professor of Nursing.* A.S. Pacific Union College, 2000; B.S.N., Pacific Union College, 2001; M.S., Sonoma State University, 2004. (2008)

**Marcia L. Toledo, M.Ed.,** *Associate Professor of Business Administration.* B.S., Atlantic Union College, 1974; M.Ed., Boston University, 1980. (1984)

**C. Thomas Turner, M.A.,** *Professor of Art.* B.S., Loma Linda University, 1969; M.A., Central Michigan University, 1976. (1984)

**Robin E. Vance, Ph.D.,** *Professor of Biology.* B.S., Loma Linda University, 1981; M.S., Loma Linda University, 1984; Ph.D., Loma Linda University, 1988. (2001)

**Kaye L. Varney, B.S.,** *Instructor of Aviation.* B.S., Pacific Union College, 2002. (2009)

**J. Patrick Vogelpohl, M.A.,** *Assistant Professor of Communication.* B.A., Bradford College, 1998; M.A., Boston University, 2000. (2010)

**Jennifer J. Wareham Best, M.A.,** *Associate Professor of Speech Pathology.* B.S., Pacific Union College, 1974; M.A., Humboldt State University, 1975. (1977)

**Steven R. Waters, D.A.,** *Professor of Mathematics.* B.S., Pacific Union College, 1979; M.S., Idaho State University, 1980; D.A., Idaho State University, 1983. (1982)

**Cynthia Westerbeck, Ph.D.,** *Professor of English.* B.A., Walla Walla College, 1990; M.A., Washington University, 1992; Ph.D., Washington University, 2000. (2004)

**C. Lynn Wheeler, D.M.A.,** *Professor of Music.* B.Mus., Walla Walla College, 1966; M.Mus., Catholic University of America, 1970; D.M.A., University of Oregon, 1976. (1971)

**Myron K. Widmer, D.Min.,** *Professor of Religion.* B.A., Pacific Union College, 1971; M.Div., Andrews University, 1978; D.Min., Fuller Theological Seminary, 2004. (1996)

**Robert L. Wilson, Ph.D.,** *Assistant Professor of Chemistry.* B.S., Andrews University, 2007; Ph.D., University of Illinois, 2012. (2012)

**Debra L. Winkle, R.N., M.S.,** *Assistant Professor of Nursing.* A.S., Walla Walla Community College, 1978; B.S., Walla Walla College, 1981; M.S., University of Phoenix, 2003. (1997)

**Ross E. Winkle, Ph.D.,** *Associate Professor of Religion.* B.A., Walla Walla College, 1983; M.Div., Andrews University, 1987; Ph.D., Andrews University, 2012. (2005)

**Adugnaw Worku, M.A., M.S.L.S.,** *Librarian.* B.A., Avondale College, 1975; M.A., Andrews University, 1977; M.A., Andrews University, 1978; M.S.L.S., University of Southern California, 1984. (1985)

**Aimee C. Wyrick-Brownworth, M.Sc.,** *Associate Professor of Biology.* B.S., Pacific Union College, 1996; M.Sc., Loma Linda University, 1998; M.Sc., The University of Montana, 2004. (2004)

### **Walter C. Utt Professors of History**

**Harry H. Leonard, Ph.D.,** *Walter C. Utt Professor of History,* 2002. B.A. (Honors), University of London, 1955; P.G.C.E., University of London, 1956; Ph.D., University of London, 1970.

**Benjamin McArthur, Ph.D.,** *Walter C. Utt Professor of History,* 1998. Ph.D., University of Chicago, 1979.

**Malcolm Russell, Ph.D.,** *Walter C. Utt Professor of History,* 2000. B.A., Columbia Union College, 1970; M.A., Johns Hopkins University, 1972; Ph.D., Johns Hopkins University, 1977.

## College Personnel

A. Gregory Schneider, Ph.D., *Walter C. Utt Professor of History, 2006*. B.A., Columbia Union College, 1971; M.A., University of Chicago, 1973; Ph.D., University of Chicago, 1981. (1977)

David J. Trim, Ph.D., *Walter C. Utt Professor of History, 2008*. B.A., Andrews University, 1995; Ph.D., University of London, 2003; FRHistS, 2003.

### Field Instructors in Social Work Practicum

Linda Bradas, M.S.W., California State University, Sacramento, 1992.

Claudia Cortes, M.S.W., San Francisco State University, 1998.

Meg Easter-Dawson, M.S.W., Indiana University, 1997.

James Featherstone, L.C.S.W., M.S., Columbia University, 1974.

Rachel Hart, M.S.W., California State University, Sacramento, 1998.

Blanch Hilman, M.S.W., Columbia University, 1987.

Nick Honey, M.S.W., San Francisco State University, 1990.

Tracy Lamb, B.S.W., Western Michigan University, 1983.

Joellen Lee, M.S.W., Portland State University, 1992.

Kerry Locklear, LCSW, California State University, Sacramento, 1972

Meghan Murphy, M.S.W., Humboldt State University, 2006.

Mark Perkins, M.S.W., LCSW, Fresno State University, 1980.

Celine Regalia, M.S.W., San Jose State University, 1998.

Randy Storm, M.S.W., LCSW, Simmons College, 1983.

Lisa Tremain, M.S.W., California State University, Sacramento, 2000.

Kristen Wagner, M.S.W., University of Chicago, 1992.

Maya Webb, M.S.W., California State University, Sacramento, 2001.

Janlee Wong, M.S.W., San Francisco State University, 1977.

### Church Partners in Ministerial Training

Calistoga SDA Church

Elmshaven SDA Church

Middletown SDA Church

Napa Community SDA Church

Napa Spanish SDA Church

Napa Valley Korean SDA Church

Pacific Union College SDA Church

St. Helena SDA Church

St. Helena Spanish SDA Church

Yountville Signs Memorial SDA Church

### Affiliated Agencies for Nursing Clinical Instruction

Children's Hospital Central California

David Grant Medical Center

Kaiser Permanente, Santa Rosa

Kaiser Permanente, Vallejo

Loma Linda University Medical Center

Marin County Health & Human Services

Napa County Health & Human Services

North Bay Health Care

Queen of the Valley Hospital

San Bernardino County

Santa Rosa Memorial Hospital

Shriners Hospitals for Children

Solano County Health & Social Services

Sonoma County Health Dept.

Sonoma Valley Hospital

St. Helena Hospital

St. Helena Hospital Center for Behavioral Health

St. Helena Hospital, Clearlake

Sutter-Solano Medical Center

UC Davis Medical Center

Ukiah Valley Medical Center

### School Partnerships in Supervised Instruction

Calistoga Joint Unified School District

City of Santa Rosa School District

Fairfield-Suisun Unified School District

Fortuna Unified School District

Foothills Adventist Elementary School  
Healdsburg School District  
Howell Mountain School District  
Konocti Unified School District  
Middletown Unified School District  
Napa Valley Unified School District  
Pacific Union College Elementary School  
Pacific Union College Preparatory School  
Pope Valley Unified School District  
St. Helena Unified School District  
Vallejo Unified School District  
Windsor Unified School District

### **Field Supervisors in Education**

Donna Altes, B.A., University of Los Angeles, 1967.  
Lolita Davidson, Ed.D., Loma Linda University, 1991.  
Richard Perkins, B.S., Chico State University, 1967.  
Peggy Prescott, B.A., University of California, Berkeley, 1961.  
Tom Prescott, M.Ed., University of Arizona, 1969.  
John Sidorski, B.S., Humboldt State University, 1968.

### **Paulin Center for the Creative Arts**

Nanci Bargas, *Piano*. Pacific Union College. (2003)  
Charles V. Bell, Ph.D., P.E., *Oboe*. B.S.E.E., Mississippi State University, 1956; M.S.E.E., Stanford University, 1957; Ph.D., Stanford University, 1960. (1984)  
John Bennett, *Cello*. San Francisco Conservatory of Music. (1997)  
Rachelle M. Berthelsen Davis, D.M.A., *Strings*. B.S., Pacific Union College, 1994; M.Mus., Indiana University, Bloomington, 1998; D.M.A., University of Texas, Austin, 2004. (2003)  
Anita Cavagnaro-Ford, A.S., *Piano*. A.S., Mills College 1950. (1984)  
Peter Estabrook, M.F.A., *Trumpet*. B.Mus., Berklee College, 1987; M.F.A., California Institute for the Arts, 1991. (2009)

Jin-Hee Kim, D.M.A., *Voice*. B.Mus., Seoul National University, 1993; M.Mus., University of Minnesota, 1995; D.M.A., University of Minnesota, 1998. (1999)

Linda Marks, B.Mus., *Violin/Viola*. B.Mus., Pacific Union College, 2011. (2012)

John Milholland, *Brass*. (1997)

Paul Psarras, M.Mus., *Guitar*. B.Mus., San Francisco Conservatory of Music, 2008; M.Mus., San Francisco Conservatory of Music, 2010. (2011)

Bruce Rasmussen, M.A, *Organ, Voice*. B.Mus., Andrews University, 1982; M.Mus., Andrews University, 1988. (2005)

G. Rosalie Rasmussen, M.Mus., *Director, Piano*. B.S., Andrews University, 1980; M.Mus., Andrews University 1981. (2005)

C. Lynn Wheeler, D.M.A., *Piano*. B.Mus., Walla Walla College, 1966; M.Mus., Catholic University of America, 1970; D.M.A., University of Oregon, 1976. (1971)

# Appendix A: Code of Academic Integrity

Integrity is expected of every student in all academic work. The guiding principle of academic integrity is that the work one presents as one's own is one's own.

*Students shall not violate the Code of Academic Integrity and shall avoid situations likely to compromise academic integrity. Students shall observe the provisions of the Code of Academic Integrity whether or not faculty members establish special rules of integrity for particular courses. Failure of faculty to prevent academic dishonesty does not excuse students from compliance with the Code.*

Those who engage in academic dishonesty diminish the quality and value of their education and bring discredit to the academic community.

## Categories of Academic Dishonesty

Academic dishonesty includes, but is not limited to, the following:

- 1. Cheating**—*Using, or attempting to use, unauthorized materials in any academic exercise; or having someone else do one's own academic work.* Examples of cheating include looking at another student's paper during a test, bringing notes to a test, obtaining a copy of a test prior to the test date, and presenting homework prepared by someone else.
- 2. Fabrication**—*Inventing or falsifying information.* Examples of fabrication include "dry-labbing" (inventing data for an experiment not done or not done correctly), making references to sources not actually used in a research paper, forging signatures on academic forms, forging letters of recommendation, and falsifying credentials in an application.
- 3. Facilitating Academic Dishonesty**—*Helping someone else to commit an act of academic dishonesty.* This includes giving someone a paper or homework to copy from and allowing another to cheat from one's test paper.
- 4. Plagiarism**—*Using the words or ideas of another writer without attribution, so that they appear as if they were one's own.* Plagiarism includes copying someone else's work word for word, rewriting someone else's work with only minor word changes, and paraphrasing or summarizing work without acknowledging the source.
- 5. Multiple Submissions**—*Presenting work done in previous courses as if it were new and original work.* Although professors are sometimes willing for a student to use previous work as the basis for new work, they expect the student to do new work for the current course. A student who wants to submit a piece of academic work in more than one course should seek the approval of the instructors.
- 6. Abuse of Academic Materials**—*Harming, appropriating, or disabling academic resources so that others cannot use them.* This includes removing tables and illustrations from books and journals to use in a paper, stealing books or articles, and damaging computer files intended for the use of others.

**7. Misrepresentation**—*Lying about or misrepresenting one's work, academic records, or credentials.* Examples include claiming ownership of another's work, several students submitting copies of the same computer document and taking credit for group work to which a student did not contribute significantly or fulfill his or her obligations.

**8. Electronic Dishonesty**—*Inappropriately using network access in a way that affects a class or other students' academic work.* Examples of electronic dishonesty include using someone else's authorized computer account to send and receive messages, breaking into someone else's files, gaining access to restricted files, disabling others' access to network systems or files, obtaining a computer account under false pretenses, and knowingly spreading a computer virus.

These general definitions may be supplemented or modified by additional policies stated in course syllabi.

## Procedures for Addressing Academic Dishonesty

1. When an instructor believes that a student has acted dishonestly, a conversation on the incident in question occurs between the instructor and the student. The instructor should notify the department chair of the incident and the conversation about it.
2. If the instructor is not satisfied with the student's explanation, the instructor documents the incident in writing. The documentation includes definition of disciplinary action. A copy is filed in the Academic Dean's office. These files are available to the Pre-professional Recommendations Committee, to any instructor who is asked for a recommendation, and to the program admissions committees for Nursing, Ministerial Studies, and Social Work.
3. If a second incident occurs in any class, the Academic Dean may give the student *an F in the class* where the second incident occurred. A third incident may result in *suspension* from the college for one quarter. A fourth incident may call for *permanent dismissal*.
4. Students who wish to appeal the decision of the Academic Dean may appeal to the Academic Standards and General Education Committee. Students should submit a written appeal and may appear before the committee if they choose.
5. The decision of the committee is final. However, if any student believes that the final decision is unjust, he or she may follow the grievance procedure outlined in the *Student Handbook*.
6. Students are entitled to add a written rebuttal to their personal files in the Academic Dean's Office.



In maintaining student records, Pacific Union College complies with the Family Educational Rights and Privacy Act of 1974 (FERPA). This act affords students certain rights with respect to their education records.

FERPA rights extend to any student who has attended Pacific Union College. Your FERPA rights begin on the first day that you attend class at the college and expire upon your death. These rights include:

**1. The right to inspect and review your education records.**

If you wish to review your education record, you should *submit to the Registrar a completed “Request to Inspect and Review Education Records” form*, available at the Records Office. Requests will be processed within forty-five days from the date the request is filed. The Registrar will make arrangements for access and will notify you of the time and place where the records may be inspected.

**2. The right to request an amendment of your education records that you believe to be inaccurate, misleading, or otherwise in violation of your privacy rights under FERPA.**

If you wish to request an amendment to your record, you should *submit to the Registrar a completed “Request to Amend Education Records” form*, available at the Records Office. If Pacific Union College decides not to amend the record as requested, you will be notified of the decision in writing and will be given a right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to you when you are notified of the right to a hearing.

**3. The right to suppress the disclosure of directory information, provided that the request is submitted while you are an enrolled student.**

If you wish to exercise this right, you should *submit to the Registrar a completed “Request to Suppress Directory Information” form*, available at the Records Office.

At Pacific Union College directory information consists of the following: 1. Name; 2. Address (local and home); 3. E-mail address; 4. Telephone number (local, home, and cellular); 5. Date of birth; 6. Photograph; 7. Most recent educational institution attended; 8. Participation in officially recognized activities and sports; 9. Weight and height of members of athletic teams; 10. Academic program of study; 11. Dates of attendance; 12. Enrollment status (full-time, part-time, etc); 13. Class standing (freshman, sophomore, etc); 14. Expected date of graduation; 15. Degrees conferred and date of conferral; and 16. Academic honors and awards received (dean’s list, cum laude, etc).

**4. The right to provide written consent before Pacific Union College discloses information from your education records, except to the extent that FERPA authorizes disclosure without consent.**

Pacific Union College discloses *directory or public information* without your prior written consent, unless if you exercise your right to refuse disclosure as described above.

Pacific Union College discloses information from you education records without your prior written consent *under the FERPA exception for disclosure to school officials with legitimate educational interests*. A school official is: 1. A person employed by Pacific Union College as an administrator, faculty, or staff member; 2. A student employed by Pacific Union College to assist an administrator, faculty, or staff member in fulfillment of his/her professional duties; 3. A person employed by, or under contract to, Pacific Union College to perform a special task, such as an attorney or an auditor; 4. A person or organization acting as an official agent of Pacific Union College and performing a business function or service on behalf of Pacific Union College; 5. A member of a Pacific Union College committee (may include student members); or 6. A person serving on the Pacific Union College Board of Trustees. A school official has a legitimate educational interest if the official needs to review your education record in order to: 1. Perform appropriate tasks that are specified in his/her position description or by a contract agreement; 2. Perform a task related to your education; 3. Perform a task related to your discipline; or 4. Provide a service or benefit relating to you as a student such as health care, counseling, job placement, or financial aid.

Upon request, Pacific Union College may disclose information from your education records *to officials of another school in which you seek or intend to enroll*.

Upon request, Pacific Union College may disclose information from your education records *to your parents if you are a dependent student as defined by the IRS code*, provided that proper documentation is on file at the college to establish dependency.

Pacific Union College may disclose information from your education records *under additional FERPA provisions authorizing disclosure without consent*. A full description of all authorized exceptions for disclosure may be obtained from the Registrar.

As of January 3, 2012, the U.S. Department of Education’s FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records — including your Social Security Number, grades, or other private information — may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Educa-

## College Personnel

tion, or state and local education authorities (“Federal and State Authorities”) may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is “principally engaged in the provision of education,” such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

### **5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Pacific Union College to comply with the requirements of FERPA.**

The Family Policy Compliance Office administers FERPA and any complaints may be filed *at the following address*:

Family Policy Compliance Office- U.S. Dept of Education  
400 Maryland Avenue SW, Washington, D.C. 20202-5901

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    - Advising ..... 32
    - Course Load ..... *See* Load, Course
    - Credit ..... *See* Credit
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# Campus Directory & Map

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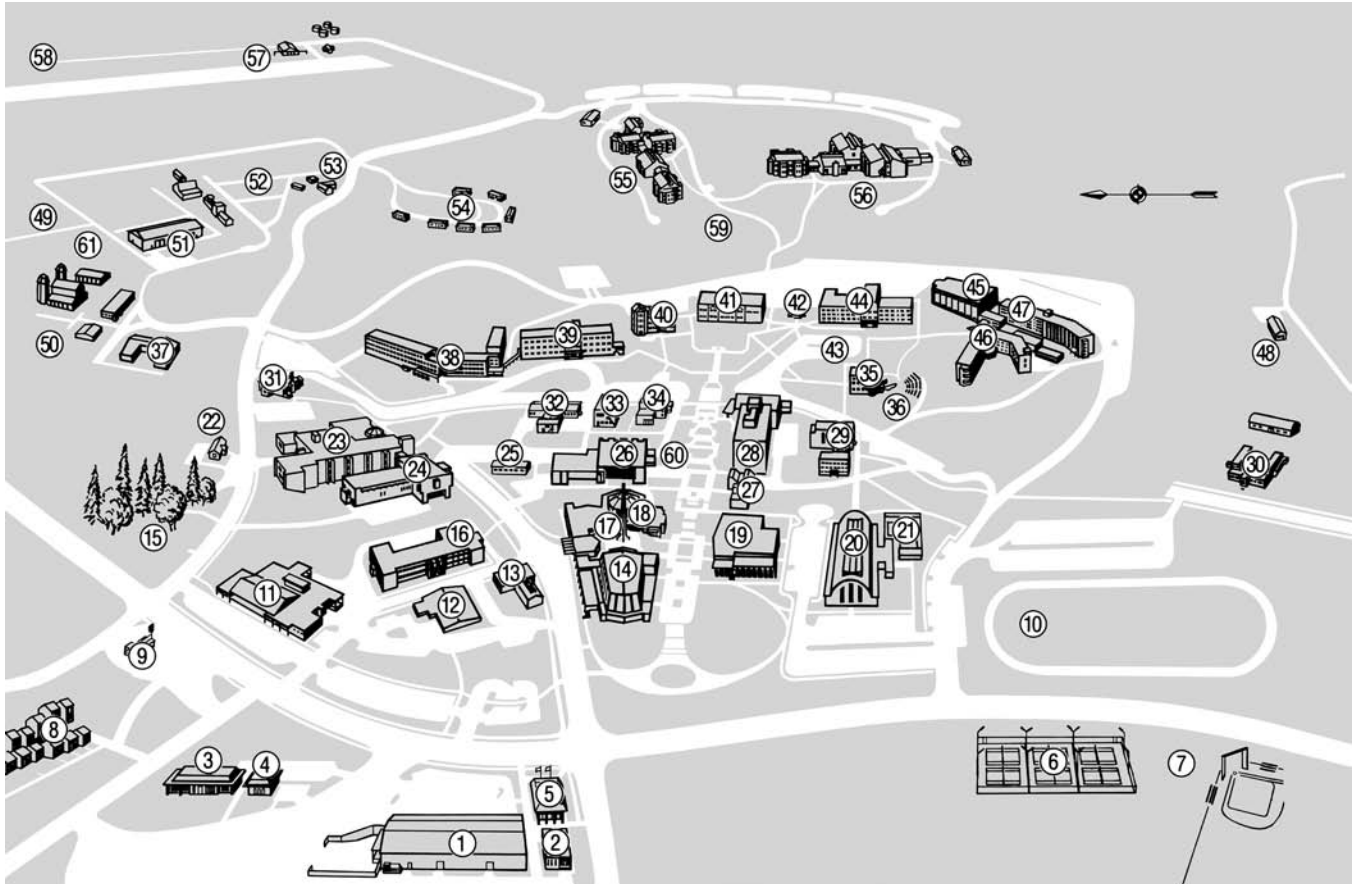
- 1. Angwin Plaza:**  
Ace Hardware  
Angwin Teen Center  
College Bookstore  
Market  
Washette
- 2. Post Office**
- 3. Career and Counseling Center**
- 4. Dental Building**
- 5. Credit Union**
- 6. Tennis Courts**
- 7. Athletic Field:**  
Hardball and Softball Fields  
Sand Volleyball Courts
- 8. Brookside Park:**  
Student Family Housing
- 9. Service Station:**  
College Chevron
- 10. Athletic Track & Field**
- 11. Press Building:**  
Copy Center  
Estate Planning  
Mail Services
- 12. Custodial:**  
Lost and Found
- 13. Heating Plant**
- 14. Church and Sanctuary**
- 15. Alumni Park**
- 16. Fisher Hall:**  
Visual Arts
- 17. Sabbath School Rooms**
- 18. Church Complex:**  
Campus Chaplain  
Campus Ministries  
Church Office  
Fireside Room  
Scales Chapel
- 19. Paulin Hall:**  
Music
- 20. Pacific Auditorium:**  
Fitness Center  
Gymnasium  
Exercise Science, Health, &  
Nutrition  
Weight Room
- 21. Swimming Pool**
- 22. Public Safety**
- 23. Chan Shun Hall:**  
Academic Administration  
Academic Advising  
Chemistry  
Computer Science  
Mathematics  
Physics  
President's Office
- 24. Davidian Hall:**  
Nursing  
Psychology & Social Work
- 25. Teaching and Learning Center**
- 26. Dining Commons:**  
Cafeteria  
Campus Center  
Student Association Offices
- 27. Rasmussen Art Gallery**

- 28. Library:**  
E.G. White/SDA Study Center  
Information Technology  
Systems and Services  
Media Services  
Pitcairn Islands Study Center
- 29. Preparatory School**
- 30. Elementary School**
- 31. Advancement / Alumni**
- 32. Financial Services:**  
Accounting Services  
Financial Administration  
Human Resources  
Student Financial Services
- 33. West Hall:**  
Education  
Health Services
- 34. West Hall Annex**
- 35. Stauffer Hall:**  
Alice Holst Theater  
English
- 36. Amphitheater**
- 37. Storage Area**
- 38. Newton Hall:**  
Men's Residence
- 39. Grainger Hall:**  
Men's Residence
- 40. Clark Hall:**  
Biology  
Wilmer Hansen Collection
- 41. Irwin Hall:**  
Business Administration  
Communication  
History  
Modern Languages
- 42. Ambs Hall**
- 43. Graf Oval**
- 44. Graf Hall:**  
Academic Records  
Admissions  
Enrollment Services  
Public Relations  
Religion  
Student Services  
Visitor Center  
Women's Residence
- 45. Dauphinee Chapel**
- 46. Andre Hall:**  
Women's Residence
- 47. Winning Hall:**  
Women's Residence
- 48. Discoveryland Children's Center**
- 49. Land Management**
- 50. Recycling Center**
- 51. Plant Services**
- 52. Mobile Manor**
- 53. Landscape**
- 54. Court Place Apartments:**  
Student Family Housing
- 55. Nichol Hall:**  
Men's Residence
- 56. McReynolds Hall:**  
Women's Residence
- 57. Virgil O. Parrett Field:**  
Flight Center

- 58. Young Observatory**
- 59. Commencement Grove**
- 60. Prayer Chapel**
- 61. Cogeneration Plant**

## Alphabetical Legend

- 23. Academic Administration
- 23. Academic Advising
- 44. Academic Records
- 32. Accounting Services
  - 1. Ace Hardware
- 44. Admissions
- 31. Advancement / Alumni
- 35. Alice Holst Theater
- 15. Alumni Park
- 42. Ambs Hall
- 36. Amphitheater
- 46. Andre Hall
  - 1. Angwin Plaza
  - 1. Angwin Teen Center
- 10. Athletic Track & Field
- 40. Biology
  - 8. Brookside Park
- 41. Business Administration
- 26. Cafeteria
- 26. Campus Center
- 18. Campus Chaplain
- 18. Campus Ministries
  - 3. Career & Counseling Center
- 23. Chan Shun Hall
- 23. Chemistry
- 18. Church Complex
- 18. Church Office
- 14. Church & Sanctuary
- 40. Clark Hall
- 61. Cogeneration Plant
  - 1. College Bookstore
  - 9. College Chevron
- 59. Commencement Grove
- 41. Communication
- 23. Computer Science
- 11. Copy Center
- 54. Court Place Apartments
  - 5. Credit Union
- 12. Custodial
- 45. Dauphinee Chapel
- 24. Davidian Hall
  - 4. Dental Building
- 26. Dining Commons
- 48. Discoveryland Children's Center
- 28. E.G. White/SDA Study Center
- 33. Education
- 30. Elementary School
- 35. English
- 44. Enrollment Services
- 11. Estate Planning
- 20. Exercise Science, Health, and Nutrition
- 32. Financial Administration
- 32. Financial Services
- 18. Fireside Room
- 16. Fisher Hall
- 20. Fitness Center
- 57. Flight Center
- 43. Graf Oval
- 44. Graf Hall
- 39. Grainger Hall
- 20. Gymnasium
  - 7. Hardball and Softball Fields
- 33. Health Service
- 13. Heating Plant
- 41. History
- 32. Human Resources
- 28. Information Technology Systems & Services
- 41. Irwin Hall
- 49. Land Management
- 53. Landscape
- 28. Library
- 12. Lost and Found
- 11. Mail Services
  - 1. Market
- 23. Mathematics
- 56. McReynolds Hall
- 28. Media Services
- 52. Mobile Manor
- 41. Modern Languages
- 19. Music
- 38. Newton Hall
- 55. Nichol Hall
- 24. Nursing
- 20. Pacific Auditorium
- 19. Paulin Hall
- 23. Physics
- 28. Pitcairn Island Study Center
- 51. Plant Services
  - 2. Post Office
- 60. Prayer Chapel
- 29. Preparatory School
- 23. President's Office
- 11. Press Building
- 24. Psychology & Social Work
- 44. Public Relations
- 22. Public Safety
- 27. Rasmussen Art Gallery
- 50. Recycling Center
- 44. Religion
- 17. Sabbath School Rooms
  - 7. Sand Volleyball Courts
- 18. Scales Chapel
  - 9. Service Station
- 35. Stauffer Hall
- 26. Student Association Offices
- 32. Student Financial Services
- 44. Student Services
- 21. Swimming Pool
- 25. Teaching and Learning Center
  - 6. Tennis Courts
- 44. Visitors' Center
  - 1. Washette
- 20. Weight Room
- 33. West Hall
- 34. West Hall Annex
- 40. Wilmer Hansen Collection
- 47. Winning Hall
- 57. Virgil O. Parrett Field
- 16. Visual Arts
- 58. Young Observatory



# Campus Directory & Map

## Contact Information

The telephone area code for Angwin is 707.

Direct inquiries by Mail, Telephone, E-mail or Fax as follows:

### College General Numbers

Toll-Free ..... (800) 862-7080  
Fax..... 965-6390

### Academic Administration

Vice President for Academics/Academic Dean ..... 965-6234  
Associate Academic Dean.....965-7103  
Fax.....965-7104

### Admissions and Catalogs

Enrollment Services .....965-6336  
Toll-Free Number ..... (800) 862-7080, #2  
E-mail ..... enroll@puc.edu  
Fax.....965-6432

### Alumni, Advancement and Development

Vice President for Advancement .....965-7500  
Alumni Association .....965-7500  
Fax..... 965-6305  
E-mail .....alumni@puc.edu

### Chaplain's Office

Campus Chaplain .....965-7190

### Counseling, Testing, and Career Services

Director, Counseling Services .....965-7080  
Fax.....965-7290

### Financial Administration

Vice President for Financial Administration .....965-6699  
Fax..... 965-6400

### Health Services

Director, Health Services .....965-6339  
Fax..... 965-6423

### Information Technology

Director, Information Technology .....965-7000  
Fax..... 965-6229

### Library

Chair, Library Services.....965-6241

### Nursing Information

Nursing Department Main Office .....965-7262  
Fax..... 965-6499

### President

President .....965-6211  
Fax..... 965-6506  
E-mail..... president@puc.edu

### Public Relations

Vice President for Marketing & Enrollment Services .. 965-6303  
E-mail ..... pr@puc.edu  
Fax..... 965-7101

### Public Safety

Emergencies ..... 965-7111  
Director, Public Safety .....965-6551  
Fax..... 965-7119

### Records Office

Registrar ..... 965-6673  
Fax.....965-6432  
Transcripts .....965-6553

### Residence Hall Living

Dean of Women .....965-6315  
Andre Hall ..... 965-7481  
Graf Hall ..... 965-6520  
McReynolds Hall ..... 965-6149  
Winning Hall .....965-6313  
Dean of Men .....965-7203  
Grainger Hall ..... 965-6491  
Newton Hall ..... 965-6487  
Nichol Hall .....965-6101

### Student Finance

Director, Student Financial Services .....965-7200  
Fax..... 965-7615

### Student Services

Vice President for Student Services/Dean of Students ..965-7362  
Fax.....965-7386

### Teaching and Learning Center

Director, TLC .....965-7688  
Fax.....965-7689