Pacific Union College
General Catalog

2004-2006

123rd-124th Academic Years

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Pacific Union College is an equal opportunity educational institution.
North American Association of Summer Sessions
Western Association of Graduate Schools

Is accredited by:
The Accreditation Association of Seventh-day Adventist Schools, Colleges and Universities
The Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (985 Atlantic Ave., Ste. 100, Alameda, CA 94501; (510) 484-9011)
State of California Department of Education

Offers programs accredited by:
Council on Social Work Education (Baccalaureate)
International Assembly for Collegiate Business Education
National League for Nursing Accrediting Commission
National Association of Independent Colleges
National Association of Independent Colleges of Northern California
Council of Independent Colleges
College Placement Council
California Council on the Education of Teachers
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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Areas of Study

Four-Year Programs for Baccalaureate Degrees (see pp. 21-22)

Art (Fine), p. 48
Aviation, p. 173
Art (Fine), p. 48

Music Performance, p. 141
Music Education, p. 140
Mathematics Education, p. 128
Applied Mathematics, p. 128

Italian, p. 89
German, p. 89
Spanish, p. 88
French, p. 88

English Education, p. 110
Writing, p. 110
British and American Literature, p. 109
British and American Literature, p. 109

Painting, p. 110
English Education, p. 110
Teaching English to Speakers of Other Languages, p. 110
Teaching English to Speakers of Other Languages, p. 110

Drama, p. 110
Exercise Science, p. 116
French, p. 134
Graphic Design, p. 47

History, p. 121
International Communication, p. 88
French, p. 88
Spanish, p. 88

German, p. 89
Italian, p. 89
Liberal Studies, p. 101
Mathematics, p. 128

Pure Mathematics, p. 128
Applied Mathematics, p. 128
Mathematics Education, p. 128
Music, pp. 140, 142

Music Education, p. 140
Music Performance, p. 141

Natural Sciences, pp. 64, 82, 160
Biology, p. 64
Chemistry, p. 82

Physics, p. 160
Nursing, p. 154, 155
Photography, p. 48

Physical Education, Teacher Education, p. 115
Psychology, p. 159

Psychological Science, p. 55
Psychology and Culture, p. 56
Public Relations and Journalism, p. 88
Religion, p. 166

Social Studies, p. 121
Social Work, p. 56
Spanish, p. 133
Television and Film Production, p. 174

Theology, p. 165

Associate Degree Programs (see pp. 21-22)

Early Childhood Education, p. 98
Graphic Design, p. 49
Lay Ministries and Bible Instructor Training, p. 167
Nursing, pp. 149, 152
Office Administration, p. 73
Photography, p. 49
Music, p. 142
Piano Pedagogy
Church Music
General Music

Credential Programs (see pp. 98, 99)

California Multiple Subject (Elementary) Teaching Credential
California Single Subject (Secondary) Teaching Credential
SDA Elementary Teaching Credential
SDA Secondary Teaching Credential

Degree-Completion Programs

Early Childhood Education, p. 183
Management, p. 184

Adult Education

Preliminary Multiple and Single Subject Credential Program, p. 185

Graduate Program

Master of Education, pp. 29, 102

Preprofessional Curricula (see p. 31)

Dental Hygiene
Dentistry
Law
Medical Radiography
Medicine
Occupational Therapy
Optometry
Osteopathy
Pharmacy
Physical Therapy
Speech Pathology
Veterinary Medicine

* Emphasis or Concentration
** Affiliated Program

Welcome to the learning community known as Pacific Union College.

The idea of a “learning community” suggests that our college is about a family learning together in mutual respect as we prepare for productive lives of useful service and uncompromising integrity. We are a Christ-centered community of learners committed to exploring and finding truth together in our quest for deeper knowledge of our chosen fields.

This quest, not an easy task, is the most exciting adventure anyone can engage in. More than the additional income a college graduate can expect to earn, beyond the earning of those without such an education, are the eternal values learned through studying in a community of like-minded students, professors, and staff members.

Part of the duty of each member of the learning community is to have time to engage in habits of lifelong learning.

James Sire, former editor of InterVarsity Press, emphasizes to engage in habits of lifelong learning.

At Pacific Union College we invite you to join in this journey.

The Psalmist wrote, “Send forth your light and your truth, let them guide me; let them bring me to your holy mountain, to the place where you dwell” (Psalm 43:3).

Our college on Howell Mountain is at the holy mountain where God dwells. We are here to help create a learning climate characterized by faculty, staff, administrators, and students who put on the shield of faith, the helmet of salvation, the sword of the Spirit, the breastplate of righteousness, and the belt of truth as we serve others with humility in our chosen professions (Ephesians 6:10-20).

—Richard C. Osborn

From the President

From the President

## Calendar, 2004-2006

### Autumn Quarter (2004)
- **Su September 19** New Student Orientation begins
- **M September 20** New Student Orientation begins
- **T** 21 Instruction begins
- **W** 24 Last day to enter courses
- **T-S** 25-27 Week of Prayer
- **M** 30 Thanksgiving recess begins
- **W** 30 Thanksgiving recess ends (10:00 p.m.)
- **W-Th** December 13-16 Final examinations

### Winter Quarter (2005)
- **Su January 2** New Student Orientation
- **M** 3 Instruction begins
- **W** 7 Martin Luther King Day; no classes/labs
- **T** 18 Week of Prayer
- **W-Th** January 24-25 Final examinations

### Spring Quarter (2005)
- **Su March 14-17** New Student Orientation
- **M** 17 Instruction begins
- **W** 21 Last day to enter courses
- **T-S** 22-26 Week of Prayer
- **M** 26 New Student Orientation

### Summer Quarter (2005)
- **Su** September 23  New Student Orientation begins
- **M** 26 New Student Orientation
- **T** 27 Instruction begins
- **W** 4 August 4 Independence Day; no classes/labs
- **T** 11 Labor Day; no classes/labs

### Autumn Quarter (2005)
- **Su September 23** New Student Orientation begins
- **M** 26 New Student Orientation begins
- **T** 27 Instruction begins
- **W** 4 August 4 Independence Day; no classes/labs
- **T** 11 Labor Day; no classes/labs
Using This Catalog

Unlike some textbooks used in a course but perhaps never consulted again, this catalog is important throughout your college career because it describes the academic program of the College and defines the requirements you must meet to achieve your academic goals. You should become acquainted with the catalog before you register at PUC.

Even if you have not yet decided on a major, you may become familiar with the general-education program and plan a schedule of courses based on its requirements. Though an adviser will help you work out your course of study, you have the ultimate responsibility for meeting the requirements of the program you choose. The catalog will serve as your constant personal adviser in the continuing process of planning and managing your college career.

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, if you have any questions about the accuracy of information in this catalog, current regulations and program 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 1850s and early 1860s 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 35,000 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.
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.

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. 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 inform them with enduring cultural values and essential Christian principles. They are invited to recognize that changing times require 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.
**Student Housing**

Pacific Union College affirms the values to be gained from being primarily a residential college. By accepting admission, unmarried students aged 22 or younger agree to live in a residence hall—unless they apply for and are granted an exception. For students in good standing, requests for off-campus housing may be approved according to the following criteria:

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

All housing must be registered in the Office of Student Services. Residence halls are available to students currently enrolled at Pacific Union College who meet eligibility requirements. Students 24 and older may live in residence halls on a “space-available” basis upon application. Requests for off-campus housing are considered and acted upon annually. Students are to secure approval before signing a lease for off-campus housing.

Single community students are not to live in “coed” groups.

These policies also apply to students enrolled in summer sessions or working full or part time on campus during summer sessions.

**Dining**

The Dining Commons 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 menu on the à la carte plan. If you have any special dietary needs, you should visit the Food Service Director to make any necessary special arrangements.

Residence-hall students are expected to take their meals in the Dining Commons and are charged a minimum fee each quarter. For details, see the FINANCIAL INFORMATION section of this catalog.

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

**Health Services**

Health Services is dedicated to providing the campus community with the necessary screening of medical conditions and referrals to either our in-staff physician or local medical providers when appropriate.

Please refer to our website located at puc.edu/Departments/Health_Service/ to download health forms or for further information.

**Orientation for New Students**

Prior to autumn-quarter registration the College provides an orientation program to acquaint new students with various aspects of campus life. Activities include aptitude and placement tests to assist in planning one’s academic program, 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.

**Library Services**

The W. E. Nelson Memorial Library provides both print and nonprint educational materials and electronic databases for the use of students and faculty.
Lists growth in their personal, interpersonal, and academic success designed to help students achieve maximum and professional assistance. The Center provides the following services:

Testing Services
Available for minimal fees: personality tests and occupational interest inventories. The Center is an official non-Saturday test site for professional school admissions. Test appointment forms and national testing dates and deadlines are available from the Center. CLEP and other institution-based testing is also coordinated through the testing services.

Psychological Services
Professional emotional and psychological support is provided in a confidential setting, on an individual, couple, family or group basis. Counselors want to help students deal with any anxiety, stress, personal difficulties, or other personal problems that might interfere with their academic performance and seriously compromise their quality of life.

Career Services
Career counselors are available with whom students are invited to discuss career options, self-assessment, skills, interests, values, goals, and job-seeking strategies. The Center provides career testing and personality testing. The Center also helps graduating students in developing effective interview skills and in writing résumés and application letters.

Disability Support Services
Policy for Students with Disabilities
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.

Accommodations for Students with Disabilities
The Learning Disability Coordinator at the Career and Counseling Center organizes the support services for students with documented disabilities. It is the student’s responsibility to provide current documentation (it must be no more than three years old) of his or her disability. Support services are available to students who provide appropriate documentation.

Students who have formal documentation of a disability and who are registered at Pacific Union College are responsible for notifying the Learning Disabilities Coordinator for academic accommodation and the Office of Student Services for any physical accommodation required. Prompt contact with the appropriate person or office is important for the College to be able adequately to assist the student. Those who do not provide valid disability documentation, who self-prescribe their condition, or who have not requested accommodation are not eligible to receive disability accommodations from the College.

Religious Life
Student Association
Student Association officers are voting members of the Student Association. Responsible for promoting and conveying the ideals and objectives of the College, the Association 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 (Diogenes Lantern), and the annual video yearly (TLC Times). 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.

Students 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 Bylaws.

Cultural Activities
Cultural activities include a Fine Arts Series featuring guest artists and members of the music faculty in classical music concerts; an Adventure Series, including several travelogue programs during the school year; The Hebaur Lecture Series and the Longo Lecture Series, each of which offers outstanding presentations by distinguished guest speakers; and Rasmusen Art Gallery exhibitions featuring guest artists, members of the arts faculty, and student work. These events are provided to the campus and surrounding community free of charge.

Student Conduct
The Office of Student Services publishes the Student Handbook (puc.edu/PUC/news/events/publications/student-handbook/index.shtm), which presents in more detail the standards of conduct referred to above. Application 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.

Family Rights and Privacy
In maintaining student records, the College complies with the Family Educational Rights and Privacy Act of 1974.
Student Life and Services

Admission to the College

Except as noted below, the College will give no information about you to any third party without your consent.

The law provides, however, that the College may disclose certain information without requiring your consent. This includes the following:

1. Information to faculty, administrators, and employees within the College system with a legitimate educational need to know your record.

2. Information to other universities, colleges or schools in which you seek to enroll.

3. Information requested by certain federal, state, and local officials and/or authorities as set forth in the law.

4. Information to persons or organizations providing financial aid.

5. Information required in an emergency to protect your health and safety or that of others.

6. Information to certain organizations conducting educational studies.

7. Information to accrediting bodies.

8. Information to your parents if you are a financial dependent according to IRS standards.

9. Directory or public information consisting of your name, address, telephone number, date of birth, major, minor, year in college, dates of attendance, date of graduation, degrees and awards received.

You have the right to refuse the disclosure of directory information about yourself except for information about your degree status. To exercise this right of refusal, you must notify the Registrar in writing, while you are enrolled, of your request.

You have the right to inspect and review official records, files, and data directly related to yourself that are kept by any office of the College. There is one exception: Students applying for admission to the College may not review their application files.

Requests to review any records should be made in writing to the administrator responsible for the record. Requests will be processed within forty-five days from the date the request is filed.

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.

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 each student 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 $1.00 or more on your PSC account. When the deposit is exhausted, local and long-distance calls are discontinued until you make a further deposit. 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 PUC 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.

Pacific Union College will accept your application for admission regardless of your race, age, sex, color or national origin so long as your attitudes 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 a successful academic experience.

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. Request the PUC Application for Admission form, available from the Office of Admissions.

2. Send the completed application, with a $30 nonrefundable application fee, to the Office of Admissions.

3. Alternative to 1 and 2 above: Apply online at www.puc.edu. There is no fee for online applications.

4. Request the registrar of the academy or high school you graduated from, or college you previously attended, to send a transcript directly from that school to PUC's Admissions office.

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.

5. Arrange for necessary recommendations. This requirement is automatically met if you apply directly from a constituent Seventh-day Adventist academy in the Northern or Central California Conference or from Hawaiian Mission Academy. Bachelor of Science in Nursing students need to provide only the references required as part of their application to the nursing program. All others must have three recommendation forms completed and sent to the Admissions office.

6. Wait for a decision letter. When all pertinent documents are on file—application form, transcripts, and recommendations—the application will be processed and you will be promptly 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.

7. 16

7. 17
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 Office of Admissions. This fee is refundable if you cancel your registration by September 1. No refunds are made for cancellations after September 1 or for failure to appear for registration.

2. Take the required college entrance examination and be sure that scores are on file in the Office of Admissions. 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 30 quarter credits must provide ACT (or equivalent) scores. You may be accepted without these test scores, but you must take the test before you register for courses.

All Seventh-day Adventist senior academies in the Central California, Northern California, and Hawaiian Conferences are designated Sunday ACT testing centers, providing test services to persons not enrolled at these academies. Upon request, guidance counselors at these academies provide information about college entrance testing to those who write, telephone or visit them.

3. Provide necessary medical information. The College’s Health Services, in order to administer appropriate care, requires all students to provide documentation of a recent physical examination (within the last twelve months), an immunization record, and evidence of good health insurance. Return these completed forms to the Office of Admissions.

Reapplication Procedures

1. Students who have withdrawn for at least three quarters must follow regular application procedures.
2. Students in residence may specify room preferences for the following year before the end of the current school year. Questions about this policy should be directed to the Office of Student Services.

Admission to Regular Undergraduate Standing

You will have regular admission status if you have acceptable recommendations and qualify in one of the following categories:

1. Students having secondary-school graduation, or its equivalent, and a grade-point average of at least 2.3 (C+) in “solid” subjects. You are expected to have completed the following:
   - Minimum Requirements
     - 4 years of English
     - 2 years of Mathematics, including Algebra
     - 1 year of Science
     - 1 year of History
   - Strongly Recommended
     - 3 years of Mathematics, including Algebra II and Geometry
     - 3 years of Science, including Biology, Physics, and Chemistry
     - 2 years of History, including U.S. and World History
     - 2 years of Foreign Language
2. A personal interview of applicant and parents by an admissions officer of the College or a designated representative.
3. A letter from the applicant stating the rationale for early entrance into college.
4. Recommendation by the faculty of the secondary school attended, including an evaluation of social and academic readiness for college.
5. Transfer students who have attended other accredited institutions of higher education, completing a minimum of 45 quarter hours, and who have on file in the Office of Admissions transcripts showing a minimum cumulative grade-point average of 2.0 on all course work taken. A maximum of 108 quarter hours of transfer credit is accepted from community or junior colleges.
6. Students who have not completed all the above minimum requirements, you may be admitted on a provisional basis (see “Admission on Provisional Status”). Any remedial work must be completed within a maximum of three quarters.

7. Students lacking secondary-school graduation who have passed the Test of General Educational Development (GED) with a standard score of 40 or above on each of the five tests and an average standard score of 50 for all five tests. (To be eligible to write the GED examination, one must be 18 years old, an exception being made for a seventeen-year-old who will have reached 18 by the time of enrollment in college, or whose class will have graduated by that time.)
8. Students seeking early entrance to college and lacking secondary-school graduation but having passed the California High School Proficiency Examination are considered for admission when the following requirements have been met:
   - Successful completion of a minimum of two years of secondary school.
   - Personal interview of applicant and parents by an admissions officer of the College or a designated representative.

Admission on Academic Probation

Applicants for admission as first-year students who meet the requirements of any of the categories above, but whose grade-point average in solid subjects is between 2.0 and 2.3, may be admitted on academic probation. Also admitted on academic probation are required remedial courses.

1. Completion of your sophomore year with a grade-point average 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.

Admission as a Special Non-Degree or Audit Student

If you do not meet college entrance requirements or do not wish to qualify for a degree, but do wish to take certain courses at the college level on either a credit or an audit basis, you may apply for admission as a special nondegree student. On this basis you are permitted to select courses for study without reference to the requirements of any prescribed curriculum. Enrollment in any particular course is subject to the approval of the instructor and to your meeting any course prerequisites. Applicants for admission as special students are expected to follow the same procedures for application and registration as regular applicants. Ordinarily, a special student may register for one to six quarter hours at any one time.

Admission as a Guest Student for Transfer Credit

If you have been accepted for study in another accredited college or university and wish to earn credit at Pacific Union College for transfer, you are not required to follow regular admission procedures. You may apply to Enrollment Services at least one month prior to the beginning of the quarter for which you expect to register at PUC.

As a guest applicant you must provide evidence of good and regular standing, including a statement from the college or university to which you have been accepted stating that the credits you earn at Pacific Union College will be accepted as transfer credit.

Admission of International Students

International students will be considered for admission when they have:
1. met all regular requirements for admission;
2. provided certified English translations of transcripts;
3. provided the required recommendations, written in English;
4. presented evidence of ability to meet all financial obligations to the College (see also the section of this catalog entitled “International Students” under FINANCIAL INFORMATION);
5. demonstrated ability to pursue studies in the English language by presenting one of the following: a minimum score of 195 on the computer-based Test of English as a Foreign Language (TOEFL) ($25 on the paper-based test); a minimum score of 55 on the IBT; a minimum score of 360 on the SAT verbal; equivalent score on another recognized test such as Michigan or Cambridge.

You need only apply to Enrollment Services at least one month prior to the beginning of the quarter for which you expect to register at PUC.

As a guest applicant you must provide evidence of good and regular standing, including a statement from the college or university to which you have been accepted stating that the credits you earn at Pacific Union College will be accepted as transfer credit.

Admission as a Special Non-Degree or Audit Student

If you do not meet college entrance requirements or do not wish to qualify for a degree, but do wish to take certain courses at the college level on either a credit or an audit basis, you may apply for admission as a special nondegree student. On this basis you are permitted to select courses for study without reference to the requirements of any prescribed curriculum. Enrollment in any particular course is subject to the approval of the instructor and to your meeting any course prerequisites. Applicants for admission as special students are expected to follow the same procedures for application and registration as regular applicants. Ordinarily, a special student may register for one to six quarter hours at any one time.

Admission as a Guest Student for Transfer Credit

If you have been accepted for study in another accredited college or university and wish to earn credit at Pacific Union College for transfer, you are not required to follow regular admission procedures. You may apply to Enrollment Services at least one month prior to the beginning of the quarter for which you expect to register at PUC.

As a guest applicant you must provide evidence of good and regular standing, including a statement from the college or university to which you have been accepted stating that the credits you earn at Pacific Union College will be accepted as transfer credit.

Admission of International Students

International students will be considered for admission when they have:
1. met all regular requirements for admission;
2. provided certified English translations of transcripts;
3. provided the required recommendations, written in English;
4. presented evidence of ability to meet all financial obligations to the College (see also the section of this catalog entitled “International Students” under FINANCIAL INFORMATION);
5. demonstrated ability to pursue studies in the English language by presenting one of the following: a minimum score of 195 on the computer-based Test of English as a Foreign Language (TOEFL) ($25 on the paper-based test); a minimum score of 55 on the IBT; a minimum score of 360 on the SAT verbal; equivalent score on another recognized test such as Michigan or Cambridge.

Admission as a Special Non-Degree or Audit Student

If you do not meet college entrance requirements or do not wish to qualify for a degree, but do wish to take certain courses at the college level on either a credit or an audit basis, you may apply for admission as a special nondegree student. On this basis you are permitted to select courses for study without reference to the requirements of any prescribed curriculum. Enrollment in any particular course is subject to the approval of the instructor and to your meeting any course prerequisites. Applicants for admission as special students are expected to follow the same procedures for application and registration as regular applicants. Ordinarily, a special student may register for one to six quarter hours at any one time.

Admission as a Guest Student for Transfer Credit

If you have been accepted for study in another accredited college or university and wish to earn credit at Pacific Union College for transfer, you are not required to follow regular admission procedures. You may apply to Enrollment Services at least one month prior to the beginning of the quarter for which you expect to register at PUC.

As a guest applicant you must provide evidence of good and regular standing, including a statement from the college or university to which you have been accepted stating that the credits you earn at Pacific Union College will be accepted as transfer credit.
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; and
- develop certain basic skills and abilities that contribute to satisfactory social and occupational relationships.

**Degrees and Curricula**

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

**Degrees Offered**

- **Baccalaureate Degrees:**
  - Bachelor of Arts (B.A.)
  - Bachelor of Science (B.S.)
- **Professional Baccalaureate Degrees:**
  - Bachelor of Business Administration (B.B.A.) See Department of Business Administration and Economics.
  - Bachelor of Music (B.Mus.) See Department of Music.
  - Bachelor of Social Work (B.S.W.) See Department of Behavioral Science.
  - Bachelor of Science in Nursing (B.S.N.) See Department of Nursing.
  - Bachelor of Science in Management (B.S.M.) See Center for Continuing and Professional Education (CAPE).

- **Graduate Degree:**
  - Master of Education (M.Ed.)
- **Associate Degree**
  - Associate of Science (A.S.)

The general requirements for the degrees follow, except for the professional baccalaureate degrees, which are detailed in the departments offering the programs and in the Degree-Completion/Adult Education section.

**The Associate Degree Program**

**Plan of Study**

The two-year associate degree program is designed for students interested in occupations requiring a limited amount of training. Except for nursing, which requires 105 quarter hours, the degree consists of 90 quarter hours of course work distributed among the major, general education, and electives. (Those interested in nursing should refer to the Nursing section of this catalog for specific requirements.)
Senior Comprehensive Examination

All candidates for an associate degree must complete the following requirements:

- **Residence Requirements:**
  - 1. A minimum of 24 quarter hours must be completed in residence.
  - 2. The last 12 hours of the major must be taken in residence.

**General Requirements:**

- 1. A total of 90 quarter hours of course work (107 for Nursing)
- 2. A minimum Pacific Union College and overall grade-point average of 2.0 (C) in course work for the degree, with no grade lower than C- in the major concentration.
- For Nursing GPA requirements see the Nursing section of the catalog.
- 3. Completion of an associate-degree major as specified in the departmental sections. (For the General Studies major, see the Associate Arts degree in the Liberal Studies section.)
- 4. Completion of the general-education requirements (outlined below).
- 5. Filing of the Application for Graduation and Senior Contract specifying the complete program of the senior year. File these at the Records Office not less than three quarters before the expected conferring of your degree.

- **General Education Requirements for the Associate Degree:**

General-education requirements for Associate of Science degree programs total approximately 32 hours. Sections are to be made from courses that meet the baccalaureate degree general education requirements (see pages 24-25).

I. Foundations of Learning

- ENGL 101
- MATH 096 or equivalent

II. Revelation, Belief, and Action

- A minimum of 9 hours, with at least 4 hours selected from courses carrying the prefix REL. Students who transfer from public institutions of higher education prior to the second year of this degree must take five hours of religion.

III. Health and Fitness

- One health course; two physical education activity courses, taken during two different quarters, one course being from the aerobics area.

IV. Electives

- From at least two of the three areas listed below, three courses are to be chosen that also apply to baccalaureate-degrees general education.
  - 1. Literature, Visual Art, Music
  - 2. Natural World/Sciences/ Mathematics
  - 3. Foreign Language, History, Philosophy, Social Sciences

- **Note:** If you wish to take course work at another college during the quarter prior to graduation, you must have obtained prior permission from the Office of the Registrar. One week before graduation, a sealed envelope must be delivered to the Records office containing either a transcript or a letter from the registrar of the college where you have taken the out-of-residence work reporting course number and title, hours of credit, and course grade, together with a statement that a transcript will follow as soon as possible.

- **Completion of any correspondence work and filing of all transfer credit** with the Records Office at least a full quarter before expected graduation.

**The Baccalaureate Degree Program**

Plan of Study

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.

In most programs the first two years are primarily devoted to general education, but you should also take certain elementary and intermediate courses in your major field during these years. 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 a faculty adviser. A faculty curriculum adviser is available for counsel throughout your college career.

Graduation Requirements for the Baccalaureate Degree

It is your responsibility to become acquainted with all graduation requirements published in this catalog and to plan a program of studies that will fulfill them. Candidates for baccalaureate degrees must complete the core and general requirements that follow.

- **Residence Requirements:** You must satisfy the following minimum residence requirements on the Angwin campus or as a participant in a PUC extension program. (If you need an exception to any of these residence requirements, you must present your special request, in writing, to the Records Office.)

- 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 field.
- 4. For students taking a minor, 6 hours of upper-division course work in the minor field.

- **General Requirements:**
  - 1. A minimum of 192 quarter hours including 60 hours at the upper-division level with a resident and cumulative grade-point average of 2.0 (C) or above.
  - 2. Completion of the general-education requirement specified for the degree sought.
  - 3. Completion of a major specialization as defined in the department of your choice. No course with a grade below C- may apply toward a major or minor.
  - 4. Application for Graduation and Senior Contract specifying the complete program of the senior year. You must file these two documents with the Records office at least three quarters before the expected conferring of your degree.
  - 5. Completion of any correspondence work and filing of all transfer credit with the Records office at least a full quarter before expected graduation.
  - 6. Completion of GNST 401, Senior Assessment Seminar. (See course description on p. 104.)

**Senior Comprehensive Examination**

Before graduation, you are required to take a comprehensive examination covering your major field of study. In some departments, because of the nature of certain discipline requirements, this requirement may be satisfied by an assessment of competence other than an examination.

For further information regarding graduation, see the section entitled “Graduation Information.”

**General Education Requirements for the Baccalaureate Degree**

The general-education requirements for the Bachelor of Arts and Bachelor of Science degrees are the same except that foreign language is not required for the Bachelor of Science degree. The general-education requirements for the degrees of Bachelor of Business Administration, Bachelor of Music, Bachelor of Science in Nursing and Bachelor of Social Work will be found in the respective departmental sections.

The number of courses and credits you will take to satisfy general-education requirements will depend on your secondary-school preparation and your choice of degree program.

**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 only once in fulfilling the general-education requirement.
- 3. Besides satisfying the requirements of the major and of general education, all transfer students will find, within the 192 hours required for a baccalaureate degree, room for elective courses that will also enrich their general preparation.

**The Purpose of General Education at PUC**

The principal goal of the general-education program is to enable graduates to make a distinctively Christian difference in the world. Such a preparation requires the ability to understand oneself, others, and the various ideas human societies use to define themselves. It also includes the disposition to act effectively in the world.

*See footnote, page 22, first column.*
The Academic Program

General Education Course Requirements

I. Foundations of Learning

The essential basis for participating in the community of learning includes the ability to do critical analysis of presentations in various forms. It includes the ability to make clear, accurate, and forceful presentations, both written and spoken, including those that employ statistical methods.

A. Rhetoric

1. COLLEGE WRITING: The uses of written language, with emphasis on the skills of critical reading and competent college-level writing, including development of these skills in research.

ENGL 101-102* College English

The general-education requirement in College English should be completed by the end of the freshman year and must be completed by the end of the sophomore year.

2. ORAL COMMUNICATION: The public, spoken presentation of ideas, with emphasis on oral argument. This requirement may be met during the freshman or sophomore year by one of the following courses:

COMM 105 Speech Communication
COMM 225 Oral Interpretation
COMM 226 Public Speaking
COMM 327 Argumentation
COMM 427 Persuasive Communication

B. Reasoning from Data: Emphasis on the critical reasoning skills necessary for accurately understanding and appropriately using statistical data.

MATH 222 Introduction to Statistics

II. Human Identity in Cultural Contexts

Insights into the identity of individuals, peoples, and cultures are gained through courses that describe and explain philosophical and historical developments, social contexts, and psychological conditions. These courses explore the methods of inquiry used by the sciences and the humanities and the tensions between them. The study of foreign languages provides not only educational enrichment that derives from the study of foreign languages and culture, but also enhances cultural understanding.

A. Historical Context: Emphasis on major developments in the civilizations of the world, on the perennial questions that have challenged humankind, and on historical methodology.

Required: the sequence HIST 101-102 or the sequence HIST 134-135.

HIST 101-102 History of World Civilizations
HIST 134-135 History of the United States

B. Philosophy: Emphasis on philosophy as a means of thinking about the enduring questions of human experience.

One course from the following:

PHIL 101 Introduction to Philosophy
PLSC 274 Introduction to Political Thought
RELT 320 Philosophy of Religion
PLSC 334 History of Political Thought I
PLSC 335 History of Political Thought II
PHIL 451 History of Western Thought

C. Social Sciences: Emphasis on how humans interact, on why they interact as they do, and on how their interaction creates social and political structures and shapes individual behavior.

Two courses from the following: one selection from anthropology (ANTH), psychology (PSYC), or sociology (SOCI); a second course with a prefix different from that of the first course chosen.

ANTH 124 Cultural Anthropology
ECON 261 Principles of Economics—Macroeconomics
ECON 265 Principles of Economics—Microeconomics
GEOG 301 World Regional Geography
PLSC 124 Introduction to American Government
PLSC 274 Introduction to Political Thought
PLSC 328 Critical World Issues
PSYC 121 General Psychology
PSYC 390 Gender Issues
SOCI 121 Introduction to Sociology
SOCI 234 The Family
SOCI 232 American Social Problems

*Racial* and Ethic Relations

D. Foreign Language: Emphasis on developing the ability to read and to communicate in a foreign language on the educational enrichment that derives from the study of foreign language and culture. (Required of all Bachelor of Arts students; recommended for students in other curricula.)

1. Prerequisite: Satisfactory completion of two years of a foreign language at the secondary level or of a 10-12 hour sequence in a beginning foreign language course.

FREN 111-112-113 Beginning French
FRMN 111-112-113 Beginning German
SPAN 111-112-113 Beginning Spanish
RELL 225-226/325-326 Beginning/Intermediate Greek
RELL 337-338/ Biblical Hebrew
RELL 445 Hebrew Prophets

2. Requirement: A basic language-cultural experience in a foreign language through one of the following options:

a) Satisfactory completion of an intermediate-level college sequence in a foreign language.

b) Satisfactory completion of an elementary-level sequence in a new language.

c) Satisfactory completion of the reading-knowledge sequence in a new language.

d) This requirement is waived for students who have completed four or more years of formal schooling, with a C average or better, in a school conducted in a language other than English and located in a country where English is not the native tongue. No college credit is awarded for the proficiency gained through such an educational experience.

The student is responsible for documenting such learning. The Academic Standards and General Education Committee determines waiver of the requirement on the basis of the committee’s review of supporting evidence.

III. Insights of the Imagination

Courses in this category explore the artistic expression of ideas, values, and emotions. They seek to cultivate the ability to understand, to evaluate, and to respond to such expressions. They seek to develop enhanced awareness of aesthetic qualities.

A. Literature: Emphasis on understanding people and culture through literature.

ENGL 301 Great Books (Prerequisite: Enrollment is limited to juniors and seniors)

B. Visual Arts: Emphasis on the visual arts as communication about ourselves and our surroundings and on the qualities used to identify aesthetic value in works of art.

ART 105 History of Western Art
ART 107 American Art
ART 108 History of Far Eastern Art
ART 279 Western Art

C. Music: Emphasis on music as the expression of ideas, values, and emotion and on criteria that define aesthetic value in music.

RELL 337-338/ Biblical Hebrew
RELL 445 Hebrew Prophets

One course from the following:

MATH 996 Intermediate Algebra

The algebra requirement should be completed by the end of the freshman year and must be completed by the end of the sophomore year.

2. Life Sciences: A full year of biology with a grade of C- or better at the secondary level or the following:

BIO 105 Man and the Natural World

3. Chemistry: A full year of chemistry with a grade of C- or better at the secondary level or the following:

CHEM 104/105 Introduction to Chemistry

4. Physics: A full year of physics with a grade of C- or better at the secondary level or the following:

PHYS 105 Introduction to Physics

B. Scientific Inquiry: An interdisciplinary approach to the major ideas of science.

GSCI 205 Scientific Revelations

C. Insight Through Investigation: A four-hour laboratory course in natural science.

One course from the following:

ASTR 115 Astronomy
ASTR 116 Astronomy
BIO 101 Human Anatomy
BIO 102 Human Physiology
BIO 111 Biological Foundations
or 112 or 113
BIO 227 Natural History of California
BIO 331 Marine Science
CHEM 101 Survey of Organic Chemistry
CHEM 103 Survey of Biochemistry
CHEM 111 General Chemistry
GEOL 233 Geology

*See page 44 for a list of prefixes and the subjects they represent.*

The Academic Program

One course from the following:

MUHL 105 Survey of Music
MUHL 331, 332, 333 Music History sequence (any quarter)
MUHL 336 Popular Music in the Twentieth Century

IV. The Natural World

Faculty and students inquire into the nature of science, exploring relationships between the sciences and other realms of human thought, including culture, philosophy, history, and ethics. They consider both the benefits and the limitations of science and technology.

A. Introductory-Level Mathematics and Science

1. Algebra: A full year of Algebra II with a grade of C- or better at the secondary level or the following:

MATH 996 Intermediate Algebra

The algebra requirement should be completed by the end of the freshman year and must be completed by the end of the sophomore year.

2. Life Sciences: A full year of biology with a grade of C- or better at the secondary level or the following:

BIO 105 Man and the Natural World

3. Chemistry: A full year of chemistry with a grade of C- or better at the secondary level or the following:

CHEM 104/105 Introduction to Chemistry

4. Physics: A full year of physics with a grade of C- or better at the secondary level or the following:

PHYS 105 Introduction to Physics

B. Scientific Inquiry: An interdisciplinary approach to the major ideas of science.

GSCI 205 Scientific Revelations

C. Insight Through Investigation: A four-hour laboratory course in natural science.

One course from the following:

ASTR 115 Astronomy
ASTR 116 Astronomy
BIO 101 Human Anatomy
BIO 102 Human Physiology
BIO 111 Biological Foundations
or 112 or 113
BIO 227 Natural History of California
BIO 331 Marine Science
CHEM 101 Survey of Organic Chemistry
CHEM 103 Survey of Biochemistry
CHEM 111 General Chemistry
GEOL 233 Geology

*See page 44 for a list of prefixes and the subjects they represent.*
Completion of any of the following sequences will satisfy both requirements B and C above:

**BIOL 101-102: Human Anatomy/ Human Physiology**
- Biological Foundations
- General Chemistry
- General Physics
- Physics

**BIOG 345 Environmental Science**
- General Chemistry
- General Physics
- General Physics
- Physics

**ENGL 352: The Christian Apologetics of C.S. Lewis**
- Philosophy of History
- Philosophy of Ethics, and the Human Sciences
- Sociology
- Philosophy of Religion

**FYC 435: Psychology of Religion**
- Issues in Science and Religion
- Issues in Science and Religion
- Philosophy of Religion
- Philosophy of Religion

**PSY 490: Issues in Religion, Ethics, and the Human Sciences**
- Philosophy of History
- Philosophy of History
- Philosophy of Religion
- Psychology of Religion

C. Requirements in Religion for Transfer Students: The minimum requirement in religion for students who transfer from public colleges and universities is as follows:
1. Freshmen: 0-44 hours must take the 18 required hours of students in baccalaureate degree programs.
2. Sophomores: 45-89 hours, juniors (90-134 hours), and seniors (135 hours and up) are required to take 14, 10, and 6 hours respectively.
3. For sophomores and juniors, at least 6 hours are to be selected from courses carrying the prefix REL. Seniors are required to take one course carrying the prefix REL.

VI. Health and Fitness

A. Health: Consideration of such major health issues as nutrition, stress management, substance abuse, and SDA health principles and their application.

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

B. Fitness: Emphasis on exercise and physical activity. One activity course for each year in residence, with a maximum of four courses.

Students transferring in as sophomores (45-89 hours), juniors (90-134 hours), and seniors (135 and more hours) are required to take three, two, and one course respectively. One must be an aerobic course.

ESAC All courses

VII. Skills for Daily Living

A truly liberal education is comprehensive, affecting the experience of the whole person. It includes courses that broaden one's applied and manual skills, thus improving one's ability to cope with common details and demands of personal and family life, as distinguished from those developed primarily for vocational purposes.

Minimum of 4 hours selected from at least two departments:
- Practical Arts: Courses in which physical "hands-on" experiences lead to useful skills and techniques for dealing with common needs.
  - ARJ 211: Home Fruit Growing (3)
  - ARJ 212: Home Greenhouse Gardening (3)
  - ARJ 213: Home Vegetable Gardening (3)
  - ART 141: Ceramics I (2)
  - ART 241: Photography (3)
  - AUTO 101: Auto Mechanics for Women (2)
  - AUTO 171: Auto Mechanics Fundamentals (3)
  - AUTO 172: Automotive Electronics and Fuel Systems (3)
  - ELEC 141: Applied Electronics (3)

B. Information Management: Courses that provide basic knowledge and skills for using computers to manage information.
  - CPTF 105: Introduction to Computers (3)
  - CPTF 115: Introduction to Macintosh (2)
  - GRPH 153: Introduction to Graphics Technology (1)

The Honors Program

The Honors Program offers an alternative general-education program for academically motivated students. It is built around a series of "great books," or central texts, illustrating significant themes in the liberal arts. These works are supplemented by selected contemporary works, including films.

Students who complete the Honors Program must meet the following honors and graduation requirements:
- Complete all requirements for the major and general education requirements.
- fulfill the Honors Program requirements graduate "With Honors," a designation that appears in the graduation program and the transcript.

Students with the following qualifications may apply for admission to the Honors Program:
- three years of mathematics (including Calculus II), a year each of biology, chemistry, and physics; a major subject GPA of at least 3.5; standardized tests scores (SAT, ACT, or equivalent) at the 80th percentile or higher; and
- two letters of recommendation, one from a college teacher supporting the student's ability to do superior academic work.

All of the following courses are inter-disciplinary, and some are team-taught. The themes and texts are chosen by the Honors Director in consultation with other teachers in the Honors Program. (Course credits are listed in parentheses.)

**Freshman Seminars:**
- HNRS 101: Heroes (3)
- HNRS 102: Order and Liberty (5)
- HNRS 103: Scripture I (5)

**Sophomore Seminars:**
- HNRS 251: Cosmos (4)
- HNRS 252: America (4)
- HNRS 253: Scripture II (4)

**Summer Term Abroad:**
- HNRS 333: Beauty (5)

**Junior Seminars:**
- HNRS 359: Virtue (4)
- HNRS 361: Self and Society (4)
- HNRS 363: East (4)
Isaac Newton ...

Horizons Courses

Note: For each of the following courses, core texts are listed. These lists may be supplemented each year with two or three other texts. (Supplemental texts in recent years have included Stegner, Angle of Repose; Brooksher, Founding Father: Rediscovering George Washington; Atwood, The Handmaid's Tale; and Johnson, A Child's Garden of Verses.)

Sophomore Courses:

HNRS 251 4 A
Cosmos
Bacon, Novum Organum
Galileo, Dialogues
 Darwin, The Origin of Species
Kuhn, The Structure of Scientific Revolutions
2011: A Space Odyssey (film)
Holst, The Planets (symphony)

HNRS 252 4 W
America
Declaration of Independence
Toqueville, Democracy in America
Hawthorne, The Blithedale Romance
Lincoln, selected speeches
Whitman, Leaves of Grass
Dickinson, selected poems
Winslow Homer, selected paintings

HNRS 255 4 S
Scripture II
Mark
Acts
Romans
1 John
The Gospel According to St. Matthew (film)
Jesus of Montreal (film)

HNRS 323 5 Su
Beauty
(Summer term abroad: England)
Aristotle, Poetics
Plato, Ion
Burke, A Philosophical Inquiry into the Origin of Our Ideas of the Sublime and the Beautiful
Blake, Songs of Innocence and Experience
Dewey, Art as Experience
Barzun, The Use and Abuse of Art

HNRS 481 4 A
Christianity
Dante, The Divine Comedy
Julian of Norwich, Showings
Milton, Paradise Lost
Law, A Serious Call to a Devout and Holy Life
Mozart, Requiem (music)

Dostoevsky, The Brothers Karamazov
The Mission (film)

HNRS 485 4 W
Progress
Voltaire, Candide
Gibbon, Decline and Fall of the Roman Empire (selections)
Malthus, Essay on the Principle of Population
M. Shelley, Frankenstein
Darwin, The Descent of Man
Achebe, Things Fall Apart
The Bounty (film)

HNRS 498 3 W, 5
Honors Project

The Major and the Minor

The specific requirements for majors and minors are given under the departmental listings in COURSES OF INSTRUCTION.

Though no course with a grade below C may apply toward the major or minor, all work taken in these areas must be included in computing the grade-point average for the major or minor.

The Major

A major consists of 45 quarter hours or more in your chosen area of specialization, of which you must complete at least one-half of the upper-division hours in residence. You must maintain a minimum grade-point average of 2.0 (C) in the major. Some departments may have additional requirements. You should consult with your departmental or major adviser to determine whether such additional requirements are met.

You may earn more than one major concurrently, provided that you complete all courses and cognates required for each major. Some courses may apply to both majors, but a minimum of 30 hours in the second major must not overlap those in the first.

The Minor

A minor is not required for graduation. You should, however, consult with your academic adviser about a minor if you plan to teach, if you desire California and/or SDA teaching credentials, or if you anticipate attending a graduate or professional school that requires a concentration in a discipline other than the major.

A minor generally requires 30 quarter hours in a departmental specialization, of which you must complete at least six upper-division hours in residence with a minimum grade-point average of 2.0 (C). In departments embracing more than one discipline (e.g., Behavioral Science), one may earn both a major and a minor having different names. While some courses may apply to both the major and the minor, a minimum of 20 hours in the minor must not overlap those in the major.

Education: The Master's Degree Program

Plan of Study

The four-quarter graduate program at Pacific Union College leads to a Master of Education (M.Ed.) degree in Instructing Leadership. This degree meets the requirements for the SDA Professional Credential and may lead to a California Professional Credential if additional requirements are met.

A nondegree fifth-year program is also available. You may obtain information about these programs from the Education department.
**Admission to the Master of Education Degree Program**

One applies for admission both to the College and to the master’s degree program. The application is considered when official college transcripts and other requested materials have been filed with the Education department.

Admission is determined by the Education department faculty on the basis of credentials held, recommendations, former academic performance, and background. The Department Chair must approve credit for coursework taken prior to admission to the program.

**Requirements for Admission**

1. A baccalaureate degree from an accredited college or university.
2. A California credential or SDA credential, or eligibility for these credentials.
3. Admission to the College.
4. Submission of a graduate application to the Education department that includes the following:
   a) two recommendations from transcripts
   b) interview with Department Chair and one other Education faculty member
   c) essay discussing interests and goals
5. A minimum grade-point average of 3.0 in each of the following areas:
   a) Undergraduate upper-division major coursework
   b) Education core coursework
   c) Overall college work, or the last 96 quarter hours
6. Acceptable scores in the Graduate Record Examination (GRE) General Test.

**Admission of Former Students**

If you are a student in good standing in another accredited graduate program, you are welcome to apply for admission to the master’s program at Pacific Union College. A maximum of 12 quarter hours of approved transfer credits may be accepted toward the degree. In addition to the regular application forms, as a transfer candidate you are required to file official postsecondary transcripts with Enrollment Services.

**Admission of Guest Applicants**

If you have been accepted for graduate study in another accredited institution of higher education and if you wish to earn credit at Pacific Union College for transfer, you are not required to follow the regular admission procedures outlined above. Refer to the section of this catalog entitled “Admission as a Guest Student for Transfer Credit.”

**Cancellation of Acceptance**

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 admission to the master’s program.

**Program of Studies**

The Department of Education faculty will monitor your progress during the period of your graduate study and will work with you in constructing an acceptable Program of Studies.

**Provisions of an Approved Program of Studies**

Your Program of Studies must provide for the following:

1. removal of any undergraduate deficiencies
2. a logical and orderly sequence of course work so that you may complete all educational objectives within the seven-year limit
3. completion of all departmental and College requirements for the degree
4. completion of all approved support area, and 7 hours of 500-level courses. Specific requirements include 26 hours of professional education core courses, 12 hours of approved support area, and 7 hours of graduate projects.

**Teacher Education Program**

Teacher education at Pacific Union College is a two-year, five-year program involving preparation in subject-matter areas and professional education courses required for Seventh-day Adventist and California State teaching credentials.

Admission of Guest Applicants

Although provision is made for you to obtain both a baccalaureate degree and a preliminary teaching credential at the end of four years, a fifth year of study is necessary to meet professional credential requirements for both the State of California and the Seventh-day Adventist denomination. The Education section of this catalog provides further information.

**Admission of Transfer Students**

If you are a student in good standing in another accredited graduate program, you are welcome to apply for admission to the master’s program at Pacific Union College. A maximum of 12 quarter hours of approved upper-division or 500-level courses for graduate credit provided that they are not needed to fulfill requirements for your bachelor’s degree. Make arrangements with the Education department and the Records office.

**Program of Studies**

Committee on Studies

The Department of Education faculty will monitor your progress during the period of your graduate study and will work with you in constructing an acceptable Program of Studies.

**Provisions of an Approved Program of Studies**

Your Program of Studies must provide for the following:

1. removal of any undergraduate deficiencies
2. a logical and orderly sequence of course work so that you may complete all educational objectives within the seven-year limit
3. completion of all departmental and College requirements for the degree
4. completion of all approved support area, and 7 hours of 500-level courses. Specific requirements include 26 hours of professional education core courses, 12 hours of approved support area, and 7 hours of graduate projects.

**Professional Education Core Requirements (25 hours)**

COMM 330 Intercultural Communication or COMM 480 Class-Room Communication

EDUC 359* Exceptional Children in the Classroom

EDUC 510 Leadership in Education

EDUC 514* Advanced Learning Theory and Instructional Strategies

EDUC 515* Educational and Psychological Evaluation

EDUC 516* Curriculum and Instruction: Historical Perspectives

EDUC 517* Current Issues in Education

EDUC 530 Brain Research and Learning

EDUC 538* Computers in the Classroom

EDUC 538L* Computers in the Classroom Lab

EDUC 524 Seminar in Language and Literacy Instruction

EDUC 523L Strategies for Authentic Literacy Assessment and Instruction

EDUC 524L Fieldwork

EDUC 524L Seminar in Language and Literacy Instruction 2

EDUC 524L Fieldwork

**Graduate Project (Thesis) (7 hours)**

**Graduation Requirements**

You have the option of fulfilling requirements under the catalog of your first enrollment or any subsequent catalog during the time of continuous enrollment. Requirements include the following:

1. Satisfactory completion of course work for the degree as outlined in your approved Program of Studies.
2. A minimum overall graduate grade-point average of 3.0 with no grade lower than B- (2.7).
3. Satisfactory completion of examinations and projects as determined by your Committee on Studies.
4. Completion of requirements within seven calendar years beginning with your first enrollment in courses counting toward your master’s degree, or date of acceptance into the program, whichever comes first. If you take these courses at any time during the seven-year period, you are considered to have continuous enrollment status. A time extension requires Education department approval.

**Clear Credential**

Information on credential status is made available on request. You are eligible to apply for admission to the master’s program at Pacific Union College. A maximum of 12 quarter hours of approved upper-division or 500-level courses for graduate credit provided that they are not needed to fulfill requirements for your bachelor’s degree. Make arrangements with the Education department and the Records office.

**Program of Studies**

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**Graduate Project (Thesis) (7 hours)**

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1. Satisfactory completion of course work for the degree as outlined in your approved Program of Studies.
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3. Satisfactory completion of examinations and projects as determined by your Committee on Studies.
4. Completion of requirements within seven calendar years beginning with your first enrollment in courses counting toward your master’s degree, or date of acceptance into the program, whichever comes first. If you take these courses at any time during the seven-year period, you are considered to have continuous enrollment status. A time extension requires Education department approval.

**Admission of Former Students**

If you previously attended Pacific Union College, you are required to apply for readmission (no application fee).
Center for Continuing and Professional Education

To meet the needs and interests of adult learners who have an associate degree or better but who have work and/or family commitments that preclude attending college as full-time residents, Pacific Union College offers evening degree completion programs in several off-campus settings leading to professional baccalaureate degrees. Currently available are the Bachelor of Science in Management (B.S.M.); the Bachelor of Science in Early Childhood Education (B.S.E.C.E.); and a post-bachelor’s Teacher Credential Program (T.C.P.) leading to the Preliminary Multiple Subject or Single Subject Teaching Credential. Program outlines and course descriptions for these curricula appear in the section of this catalog titled Center for Continuing and Professional Education (CAPE).

Internet-Based Courses

On-line courses are available in a variety of disciplines. Enrollment is open to all interested persons. For further information see the CyberCourses section of this catalog; or visit the Website at http://cybercourses.puc.edu.
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 desire an exception to an academic policy, complete a Special Request form (available at the Records office), ask your academic adviser to endorse your petition, and return it to the Records office.

**Registration**

You are expected to register online through Lantern (accessible from PUC’s web site) for all your courses during the registration periods as announced in this catalog. You have the option of registering for the entire school year prior to the last date to add courses for each quarter.

**Late Registration**

You must complete registration for each quarter before the first day of class meetings. If, at the end of the first day of classes, you have not received financial clearance, your registration will be cancelled. *Failure to complete registration before the first day of class meetings will result in 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 as described above, you may not under any conditions continue attending class 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.”)

**Changes in Registration**

To avoid changes in registration, you should plan your program carefully. You may add courses or withdraw from them before the last date to enter or withdraw. You are responsible for checking your schedule on Lantern to make sure that your schedule is correct.

You are responsible for following the program for which you have registered. You may not attend or receive credit for a course for which you have not registered. Failure to attend a course for which you have registered will result in an “F” in that course.

**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 third 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.”

**Withdrawal from Courses**

To withdraw from a course any time before the last date to withdraw, you must go through Lantern. A course from which you withdraw within the first two weeks of the quarter will be deleted from your record.

**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 adviser, your College employer (if you are employed on campus), the Director of Student Persistence, the residence-hall dean (for residence-hall students), the
Armed Forces Credit

Although “blanket” credit is not awarded for military service, some training courses provided by the armed forces may be recognized as equivalent of college courses. You may obtain credit for such courses by presenting certificates describing the training. Credit is awarded for college-level academic experiences in accordance with the United States Armed Forces Institute that are completed with a satisfactory grade.

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

The maximum credit transferable from a recognized junior (community) college is 108 quarter hours (72 semester hours). Upper-division credit is not allowed for junior college courses or for courses numbered as lower-division credit.

Another senior college or university. Pacific Union College reserves the right to accept or reject credit earned or attempted at other institutions. (See also “Academic Probation,” “Academic Probation, Remedial and Reentry,” “Repeating Courses,” and “Academic Renewal.”) Pacific Union College normally accepts a maximum of 18 semester hours or 18 quarter hours of credit per quarter for all transfer credit for both categories of credits. Credit is allowed for college course work completed before secondary-school graduation if such work has been taken in an accredited college and is shown by transcript as college credit.

Transcripts from unaccredited institutions are given provisional evaluation. After you have completed 16 quarter hours in residence at Pacific Union College with at least a 2.0 grade-point average, the transcript from the unaccredited institution will be analyzed on a course-by-course basis and credit established for those courses that appropriately apply to your program at Pacific Union College.

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

The maximum credit transferable from a recognized junior (community) college is 108 quarter hours (72 semester hours). Upper-division credit is not allowed for junior college courses or for courses numbered as lower-division credit.

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. Failure to file all transcripts may result in delay of registration until the transcripts are received.

Transcripts from institutions accredited by recognized accrediting associations are evaluated to allow equivalent courses from the transfer institution to satisfy specific course requirements at Pacific Union College. Transfer credit is awarded for courses with a grade of C- or higher.

The College reserves the right to require repetition of courses that have been outstanding.
If at the end of three
Written work you present in fulfill-
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 re-
quirement, each instructor has the right to establish specific policies best suited to a given course.

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 produ-
duction of materials for other students, are ordinarily subject to dismissal from the course with a failing grade.

Situations involving academic dis-
Honesty are dealt with by the instructor of the course in consultation with the department chair. A record of any ver-
ifed 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. (A student feeling he or she has been treated unfairly has the right of ap-
peal through established grievance pro-
cedures.) A pattern of serious or habitual dishonesty may lead to academic suspension or dismissal.

Ownership of Written Work

Written work you present in fulfill-
ment of course requirements becomes the property of the College. The teacher 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 teacher. 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.

Grading System

Grades are posted on Lantern at the end of each quarter. These reports are not valid for transfer or certification purposes.

Any corrections and grade changes must be made within two weeks after the grade has been posted. After this date, all grades become final. To raise a grade once it has been recorded, you must repeat the course.

Grades

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

A = 4.0
B+ = 3.3
B = 3.0
C+ = 2.3
C = 2.0
D+ = 1.3
D = 0.7
F = 0.0
IP = Not computed
NR = Not reported
W = Not computed

Withdrawal

Courses from which you withdraw before the end of the second week of the quarter are deleted from the record. A "W" is assigned to a course from which you officially withdraw between the be-
ginning of the third week and the end of the eighth week. A "W" is not computed in the grade-point average. You may not withdraw from a course after the eighth week.

Dean’s List

When you complete a minimum of 12 credits with a grade-point average of at least 3.5, you are honored as a member of the Dean’s List for that term.

Incomplete

A grade of “I” is assigned in excep-
tional situations when unavoidable circumstances prevent completion of a course. An "I" carries no grade points and is not computed in your grade-point average. You must remove an Incomplete by the time your instructor specifies, but no later than six calendar weeks from the time it is assigned. An Incomplete not removed reverts to the grade computed without the missing work. This grade is specified at the time the Incomplete is granted.

At least six weeks before graduation, prospective graduates must have made up all outstanding Incompletes.

IP—in Progress

The “IP” grade is available when the requirements of a course may extend beyond the quarter for which you are registered. For such courses, the IP grade is available only when specified in the course description. Unless otherwise stated, the IP must be completed within three quarters.

Grade Not Reported

The grade "NR" carries no grade points and is not computed in the grade-point average. An "NR" not removed by the end of the second week of the following quarter becomes an “F.”

Academic Suspension

If you have two consecutive quarters with a grade-point average below 2.0, and/or a Pacific Union College cumulative grade-point average below 2.0, you will be placed on academic suspension. The quarter to be evaluated are your most recent three quarters at Pa-
cific Union College, whether or not the period of three quarters was interrupted for any reason by one or more breaks in enrollment.

While on academic suspension, you may not continue your studies at Pacific Union College. You may reapply after you complete at least ten quarter hours of course work (transferable credit) at another accredited college or university for which you earn a grade-point average of at least 2.25. Upon readmission after suspension, if you still have a Pacific Union College grade-point average below 2.0, you must achieve a minimum grade-point average of 2.25 each succeeding quarter until your cumulative grade-point average has reached 2.0. Under such circumstances, failure to maintain a grade-point average of at least 2.25 will normally result in Academic Dismissal. Academic suspension is recorded on the transcript.

Academic Dismissal

If you are readmitted to Pacific Union College following academic suspension and then earn a grade-point average below 2.0 (C) during either of the next two quarters, you will be placed on academic dismissal. After academic dismissal, you may apply for readmission after completing at least 45 hours of course work at another accredited college or university with a grade-point average of at least 2.25. Academic dismissal is recorded on the transcript.

Academic Renewal

Option 1: If at the end of the fourth quarter (at least 36 hours of course work you maintain a grade-point average of 2.0 (C) or better, you as a transfer student are required to first apply to the Records office to have excluded from your transfer record sufficient course work to bring the transfer grade-
point average to at least 2.0. Former students who have failed to maintain a grade-
point average of 2.0 or higher may, after a break in residence of at least one year, be reenrolled on the same basis as transfer students.

Option 2: Under certain circumstances, the College may disregard up to three quarters or two semesters of previous undergraduate course work, taken at any college or university, from all considerations associated with required academic renewal. You create. These circumstances are the following:

1. You have formally requested the action; and
you have presented evidence that work completed in the terms under consideration is substantial and not representative of your current academic ability and level of performance.

The final decision that one or more terms are to be disregarded in determining eligibility for graduation is based upon careful review of evidence by the Academic Standards and General Education Committee 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 PUC at least 15 quarter units with at least a 3.0 GPA.

When such action is taken, your permanent record is annotated so that it is readily evident to all since that record no work taken during the disregarded terms, even if satisfactory, may apply toward baccalaureate requirements. All work must remain legible on the record, ensuring a true and complete academic history.

Option 3: You have accumulated in a grade-point average lower than 2.0, you may petition the Academic Standards and General Education Committee to be admitted to a degree program with no prior college credit and no grade-point average. 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.

If the petition is approved, all prior college courses and grades are retained on the transcript and the notation “admitted without credits or grades by committee action” is recorded. When implemented, this policy waves all previous credits and grades earned in special nondegree status and grades earned in a special nondegree-bound status.

### Repeating Courses

You may repeat a course in which you have earned of C- or above only if you have not taken a more advanced course in the same subject.

If you have a D or F in a major, minor, cognate, or other required course, you may, on the advice of your major adviser, take another course in the same subject. If you have taken another course in the same subject, or you may repeat the course if you have not taken a more advanced course in the same subject.

When repeating a course, you must repeat all the class work; and, if the course includes a laboratory, you may be required to repeat the laboratory requirements as well. Your Pacific Union College grade-point average will be recomputed when you repeat the course at Pacific Union College.

Your permanent record includes a complete account of all courses attempted, and all transcripts are issued on this basis. A course you have repeated to improve your grade-point average is not counted toward the total credit hours earned, and only the higher grade course is included in the grade-point calculation.

### Restriction on Lower-Level Courses After Upper-Level

You may not take lower-level courses after you have earned credit in a more advanced course in the same area. Each department will identify those advanced courses that preclude lower-level courses in its area.

### Correspondence Courses

You may apply, with the approval of the department concerned and approved by the Academic Standards and General Education Committee, to be admitted to a degree program with no prior college credit and no grade-point average. 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.

If the petition is approved, all prior college courses and grades are retained on the transcript and the notation “admitted without credits or grades by committee action” is recorded. When implemented, this policy waves all previous credits and grades earned in special nondegree status and grades earned in a special nondegree-bound status.

Only if approved by the major professor; it cannot be used to raise a grade.

If you are working toward a Californian teaching credential, you should obtain from the Credential Analyst specific current information about the acceptance of credit for correspondence courses.

While in residence, you may pursue correspondence work only with approval, in advance, of Academic Administration.

All transcripts for correspondence courses apply toward the requirements of any degree must be on file in the Records Office for each major graduation.

Correspondence courses are not accepted in first-year language or in speech.

### Concurrent Enrollment

While you are registered at Pacific Union College, you may not earn credit toward graduation from PUC through concurrent enrollment in another college unless you have the prior approval of the Registrar. Transfer credit will not be accepted for courses taken more than three years previously from the date of matriculation.

### Reserving Courses for Pre-Degree or Graduate Credit

You may request that certain upper-division courses be reserved for post-baccalaureate or graduate credit by making arrangements with the Education department and the Records office. If you are credentialed by the California and the SDA denomination, you must complete an approved five year or master’s degree of 45 quarter hours beyond a bachelor’s degree.

### 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, or electives or cognates, but not to meet general education requirements. Cross-disciplinary studies earn split credit in the disciplines represented. You may earn up to twelve hours in Independent Study.

To be eligible for Independent Study in any department, you must have reached junior standing in that major and all departmental prerequisites, and have earned a minimum grade-point average of 3.0 in the proposed area of study.

To register for the course, you must have negotiated 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. It should not be confused with courses offered through Directed Study.

### Credit for Student Missionaries and Taskforce Volunteers

You may earn academic credit in connection with field experience (GNR 350) during enrollment as an Associate Missionary or Task Force volunteer. To qualify, you must have previously taken courses at Pacific Union College, and you must arrange for credit with the Registrar before the experience begins. Credit—elective only—is available on a Satisfactory/ Fail basis. You may earn 6 hours per quarter to a maximum of 12 hours.

### More information about credit for field experience that is gained by applying for a position at the Campus Ministries office or the Registrar.

### Assessment of Outcomes

The College seeks through various means to measure its success in fulfilling its mission. A part of that effort involves examinations to assess outcomes in general education and in each student’s major field. All students are required to participate in this examination program.

### Pre-Examination Week

No of-campus field trips, major examinations, or extracurricular activities requiring student participation may be scheduled during the week prior to the first day of class ("dead week") in order that you may devote full time to completing course projects and preparing for final examinations. Exceptions are made for laboratory courses and for those classes meeting once a week only and for which there is no contact during the normal final exam week.

### AP Tests

You may waive certain course requirements provided that you fulfill one of the following conditions:
1. Present course in substantially equivalent, in purpose, 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.
3. 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 applied toward the degree only if it qualifies to increase the number of elective hours available as part of your degree program.

### CLEP (College-Level Examination Program), DANTES (Defense Activity for Nontraditional Educational Support), Excelsior, and College-prepared tests. Further details are available at the Records office and academic departmental offices. No credit by examination is available for remedial (0-level) courses.

### AP, CLEP and Other Tests

Maximum credit applicable to a four-year degree is 45 hours; maximum credit applicable to a two-year degree is 24 hours.

1. **AP Tests:** Prepared and administered by the College Entrance Examination Board. Advanced Placement Examinations are currently available in several subject-matter areas.
2. **CLEP Tests:** CLEP (College-Level Examination Program) tests are intended as a means of establishing academic credit for persons who through extensive independent study, specialized training, etc., have gained knowledge equivalent to the course in formal college courses. There are two kinds of College-Level Examinations: General Examinations and Subject Examinations.
If you have audited a course, you may petition for permission to register for the test. If supplementary departmental examinations are required, you may take any one CLEP examination only once.

College-Prepared Tests
(Maximum applicable to a four-year degree is 18 hours, maximum applicable to a two-year degree is nine hours). The following regulations apply:

1. An application for permission to attempt credit by examination requires, on the appropriate form available from the Records office, the signatures of the course instructor, the department chair, and the Registrar.

2. 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.

3. To be eligible for credit by examination, you must demonstrate superior competence by such evidence as the following:
   a) A grade-point average 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; and
   d) Work experience sufficient to develop course competencies.

4. You may not earn credit by examination if you have previously taken a similar course or if the course in question is a prerequisite to one in which you have already earned credit.

5. If you have taken or attempted a course, you may not take the grade for that course by examination.

6. Examinations for credit may not be repeated.

7. Examinations for credit are recorded on a Satisfactory/Fail basis. For Satisfactory to be recorded, achievement equivalent to C+ or better on a graded examination is required.

8. If you have audited a course, you may earn credit by examination for the course by paying one-half the regular tuition fee. (See the FINANCIAL INFORMATION section of this catalog for examination and recording fees.)

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.

Classification of Students

- **Regular Student**: A student who has completed all of the entrance requirements and who has been officially enrolled in a degree program.

- **Freshman**: A beginning first-year student or one who has completed fewer than 18 quarter hours of credit.

- **Second-Year Freshman**: A second-year student who has completed at least 18 quarter hours.

- **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 135 quarter hours of credit.

- **M.Ed. Degree Student**: A student who has been accepted into the Master of Education degree program.

- **Uncoded**: A student who does not meet College entrance requirements and/or does not wish to qualify for a degree, but who wishes to take certain courses on either a credit or an audit basis.

Requirements for Undergraduate Degree Graduation

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, however, of qualifying under any catalog in effect during the time you are in continuous residence. If you wish to do so, you may choose the requirements for your major and for general education from separate qualifying catalogs. If you are a transfer student, you may also graduate under the catalog of your admission.

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 are reenrolled to the College, or of a subsequent catalog.

Degree Candidacy

You may become a degree candidate when you begin the academic year during which it will be possible to complete all requirements for graduation.

Four quarters before your expected graduation, you must formally apply for graduation at the Records office. Transfer students planning to meet graduation requirements during the current academic year must file a request at registration.

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.

Residence Requirements for Denominational Teachers

If you have earned 96 quarter hours toward a baccalaureate degree and have established residence at PUC, you may, if continuously employed as a teacher in the Seventh-day Adventist denominational school system, be considered as not having broken residence provided that you complete the work for the degree within seven consecutive summer quarters and provided that you have not during this period enrolled as a student in any other institution of higher education without the authorization of the Academic Standards and General Education Committee.

Graduation Information

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 an autumn or winter quarter, you will receive your degree at the following spring commencement. The date of graduation appearing on the diploma, however, is that of the last day of the quarter during which you actually completed the degree requirements.

Graduation In Absentia

You are expected to participate in Commencement services unless you notify the Records office in advance that you plan to be graduated 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 those who complete the requirements for graduation who also participate in the recognition service unless excused, in writing, by the Chair of the Nursing department. Requests for exemption should be presented in writing during the first week of spring quarter.

Baccalaureate Degree Graduation Recognition

Graduation with Academic Distinction

Students who, one quarter before graduation, have earned both a Pacific Union College and an over-all grade-point average 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.

Honors Program Graduation

The Honors Program is designed to enrich the studies of exceptionally well-prepared students. Only students fulfilling the requirements of the Honors Program will graduate "With Honors," a designation that appears on the graduation program and on the student’s transcript. (See "The Honors Program.") Second Degree

Two degrees may be conferred concurrently or subsequently if you have met all the major and general-education requirements and the requirements for more than one major. (See "The Major and the Minor.")

Transcripts

At your written and signed request, the Records office will provide transcripts of your credits. (See the FINANCIAL INFORMATION section of this catalog transcript fees.) 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 Tuition. Transcripts are issued or copied for release at your written and signed request, in writing, by the Chair of the Nursing department. Requests for exemption should be presented in writing during the first week of spring quarter. 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.
Quarter System

Each quarter has approximately 11 weeks. Quarters are designated as Autumn (A), Winter (W), Spring (S), and Summer (Su).

Credit Hours

“One quarter hour” normally represents one fifty-minute class per week throughout an academic quarter and approximately two hours of preparation for each one-hour session. One laboratory period of approximately three hours is considered equal in credit value to one lecture/discussion period and the expected preparation.

Variations may include independent study, directed study, research laboratory courses, individualized studio instruction, music lessons, special workshops, and perhaps other “nontraditional” academic events.

Prefix

The three- or four-letter prefix to each course number indicates the department or subject area (see page 44).

Numbering and Classification of Courses

Courses are numbered and classified as follows:

001-099 Remedial Courses

For students with inadequate academic skills. No remedial course work may apply toward any degree.

100-299 Lower-division Courses

Normally taken by freshmen and sophomores.

300-499 Upper-division Courses

Normally taken by juniors and seniors. You may not register for upper-division courses unless you have completed any prerequisites. First-year students may register for these courses only with special permission of the registrar and with the approval of the academic adviser and the course instructor.

Some upper-division courses serve the purpose of extending the scholarly background of a graduate student. When approved by the student’s Committee on Studies, such courses may apply toward the graduate degree.

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.

Alternating Courses

The year is defined in terms of the graduating year.

Odd year—2004-2005
Even year—2005-2006

Hyphenated Courses

Course numbers separated by hyphens indicate an integrated sequence. Though they are generally taken consecutively, a student may receive credit for any quarter or quarters without the others provided that any prerequisites have been met.

Directed Group Study

A course is offered under the title 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 096, 296 or 496
3. The title Directed Group Study
4. The credit hours of the course
5. 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 credit hours of the course
5. The name of the course as subtitle

Honors Project

Although not listed in each department, Honors Projects carry the following course designation:

1. Alpha prefix of the course
2. Course number 498
3. The title Honors Project
4. The credit hours of the project
5. A subtitle, identifying the nature of the project

Courses of Instruction
## Courses of Instruction

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

<table>
<thead>
<tr>
<th>Subject</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGT</td>
<td>Accounting</td>
</tr>
<tr>
<td>AGRI</td>
<td>Agriculture</td>
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<tr>
<td>ANTH</td>
<td>Anthropology</td>
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<tr>
<td>ART</td>
<td>Art and Design</td>
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<tr>
<td>ASTR</td>
<td>Astronomy</td>
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<tr>
<td>AUTO</td>
<td>Energy-Power-Transportation Technology</td>
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<td>AVIA</td>
<td>Aviation</td>
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<td>BIOL</td>
<td>Biology</td>
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<td>BUAD</td>
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<tr>
<td>CHEM</td>
<td>Chemistry</td>
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<td>COMM</td>
<td>Communication</td>
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<tr>
<td>CPTB</td>
<td>Computer Science</td>
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<tr>
<td>DRMA</td>
<td>Dramatic Arts</td>
</tr>
<tr>
<td>DRFD</td>
<td>Drafting-Design Technology</td>
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<td>EDED</td>
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<td>EDCU</td>
<td>Education</td>
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<td>ELEC</td>
<td>Electricity-Electronics Technology</td>
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<td>ENGL</td>
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<td>ENNL</td>
<td>English as a Second Language</td>
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<td>ESAC</td>
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<td>ESTH</td>
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<td>FDMT</td>
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<td>FIN</td>
<td>Finance</td>
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<td>FREN</td>
<td>French</td>
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<td>Geology</td>
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<td>GNRL</td>
<td>General Non-departmental Courses</td>
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<td>GNST</td>
<td>General Studies</td>
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<td>GRPH</td>
<td>Graphics Technology</td>
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<td>GRMN</td>
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<td>GSCI</td>
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### Subject

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<td>Health Education</td>
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<td>HNS</td>
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<td>INF</td>
<td>Information Systems</td>
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<td>ITAL</td>
<td>Italian</td>
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<td>JOUR</td>
<td>Journalism</td>
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<tr>
<td>MATH</td>
<td>Mathematics</td>
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<tr>
<td>MIRA</td>
<td>Television and Film Production Technology</td>
</tr>
<tr>
<td>MGMT</td>
<td>Management</td>
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<tr>
<td>MGT</td>
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<tr>
<td>MCR</td>
<td>Microbiology</td>
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<tr>
<td>MUEN</td>
<td>Music Ensemble</td>
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<tr>
<td>MULH</td>
<td>Music History and Literature</td>
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<tr>
<td>MUSP</td>
<td>Music Performance</td>
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<tr>
<td>MUTH</td>
<td>Music Composition and Theory</td>
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<tr>
<td>NURS</td>
<td>Nursing</td>
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<tr>
<td>OFFAD</td>
<td>Office Administration</td>
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<tr>
<td>PHIL</td>
<td>Philosophy</td>
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<td>PHYS</td>
<td>Physics</td>
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<td>PRL</td>
<td>Public Relations</td>
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<tr>
<td>PSYC</td>
<td>Psychology</td>
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<tr>
<td>RELR</td>
<td>Religion, Biblical Studies</td>
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<tr>
<td>RELH</td>
<td>Religion, Historical Studies</td>
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<tr>
<td>RELL</td>
<td>Religion, Biblical Languages</td>
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<tr>
<td>RELP</td>
<td>Religion, Professional Studies</td>
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<td>RELT</td>
<td>Religion, Theological Studies</td>
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<td>SORK</td>
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<tr>
<td>SPAN</td>
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<td>SPAN</td>
<td>Speech Pathology</td>
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<tr>
<td>TCH</td>
<td>Technology</td>
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### Department

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<th>Subject</th>
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<tbody>
<tr>
<td>BHT</td>
<td>History and Social Studies</td>
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<tr>
<td>BHE</td>
<td>Exercise Science, Health and Nutrition</td>
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<td>HNS</td>
<td>Honors Program</td>
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<td>Business Administration and Economics</td>
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<td>ITAL</td>
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<td>JOUR</td>
<td>Communication</td>
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<td>MATH</td>
<td>Mathematics</td>
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<tr>
<td>MIRA</td>
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<tr>
<td>MGT</td>
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<td>Music</td>
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<td>MUEN</td>
<td>Music</td>
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<tr>
<td>MULH</td>
<td>Music History and Literature</td>
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<td>MUSP</td>
<td>Music Performance</td>
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<td>NURS</td>
<td>Nursing</td>
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<td>OFFAD</td>
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<tr>
<td>PHIL</td>
<td>Various departments</td>
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<tr>
<td>PHYS</td>
<td>Physics and Engineering</td>
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<td>POLS</td>
<td>History and Social Studies</td>
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<td>PRL</td>
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<td>PSYC</td>
<td>Behavioral Science</td>
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<td>RELR</td>
<td>Religion</td>
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<td>RELL</td>
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<td>RELT</td>
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<td>SOCI</td>
<td>Behavioral Science</td>
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<td>SORK</td>
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<tr>
<td>SPAN</td>
<td>Modern Languages</td>
</tr>
<tr>
<td>TCH</td>
<td>Communication</td>
</tr>
</tbody>
</table>

### Nondepartmental courses.

#### GNRL 100

**Campus Colloquy**
A weekly meeting of community and spiritual significance required of all full-time undergraduate students each quarter in residence. The colloquy is graded S/F. To pass, a student must attend a minimum of six meetings each quarter.

#### GNRL 104

**Young Scholars Program**
A week-long program of course work, projects, and investigations in science, mathematics, humanities, and the arts. Graded on a Satisfactory/Fail basis. May be repeated for credit. Prerequisite: Admission to the PacificQuest summer program for talented and gifted students.

#### GNRL 204

**Introduction to Dentistry**
Dental anatomy, morphology, and related aspects of dentistry as a career. One lecture and one laboratory weekly.

#### GNRL 350

**Field Experience**
Students in the PUC Student Missionary and Task Force programs may arrange to do academic work in connection with their service appointments and thereby to earn credit applicable toward degree requirements. Credit is available on a 0-3.0-unit per quarter basis. Registration qualifies students to maintain enrolled status at PUC while off campus in these programs. Further information is available at the Campus Ministries office or from the Registrar. Graded S/F.
Faculty
Tom Turner, chair; Jon Carstens, Cheryl Daley, Milbert Mariano, Thomas Morphis, Cliff Rusch
Departmental Office: 254 Fisher Hall; 965-6350

Degrees and Programs
Graphic Design, B.S. ............................................................ 47
Fine Art, B.S. ................................................................. 48
Fine Art, B.A. ................................................................. 48
Photography, B.S. ............................................................ 48
Graphic Design, A.S. .......................................................... 49
Photography, A.S. ............................................................ 49

In the Department of Art and Design, the student has the opportunity to study art either as a vocation or as a means of increasing cultural awareness. The department is keenly interested in students who choose art as their occupation and who want to devote themselves to the period of intensive training necessary for their profession. It is also concerned with those whose interests may be avocational rather than professional, who recognize the cultural advantages to be obtained from the study of art, or who find in artistic experience a high degree of personal enjoyment and satisfaction.

Major in Graphic Design, B.S.
▶ A minimum of 80 hours (43 upper division) including the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ART 121-122</td>
<td>Drawing Fundamentals I-II</td>
<td>2-2</td>
</tr>
<tr>
<td>ART 124-125</td>
<td>Design and Composition I-II</td>
<td>3-3</td>
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<tr>
<td>ART 127</td>
<td>Three-Dimensional Design</td>
<td>2</td>
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<tr>
<td>ART 131</td>
<td>Watercolor Painting</td>
<td>2</td>
</tr>
<tr>
<td>ART 241-242</td>
<td>Photography I-II</td>
<td>3-3</td>
</tr>
<tr>
<td>ART 261-262</td>
<td>Graphic Design I-II</td>
<td>3-3</td>
</tr>
<tr>
<td>ART 263</td>
<td>Typography I</td>
<td>3</td>
</tr>
<tr>
<td>ART 264</td>
<td>History of Graphic Design</td>
<td>2</td>
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<tr>
<td>ART 266</td>
<td>Preprint Production I</td>
<td>3</td>
</tr>
<tr>
<td>ART 268</td>
<td>Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>ART 317</td>
<td>Design: Online</td>
<td>2</td>
</tr>
<tr>
<td>ART 325</td>
<td>Printmaking–Silkscreen</td>
<td>2</td>
</tr>
<tr>
<td>ART 361-362</td>
<td>Graphic Design III-IV</td>
<td>3-3</td>
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<tr>
<td>ART 364</td>
<td>Illustration II</td>
<td>3</td>
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<tr>
<td>ART 365</td>
<td>Package Design</td>
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<td>ART 370</td>
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<td>ART 394</td>
<td>Professional Practices in Art</td>
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<tr>
<td>ART 421</td>
<td>Life Drawing I</td>
<td>2</td>
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<tr>
<td>ART 426</td>
<td>Design and Composition III</td>
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<tr>
<td>ART 446</td>
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<tr>
<td>ART 463</td>
<td>Typography II</td>
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<tr>
<td>ART 464</td>
<td>Preprint Production II</td>
<td>3</td>
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<td>ART 466</td>
<td>Illustration III</td>
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▶ Required Cognate Courses:

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<th>Title</th>
<th>Hours</th>
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<tbody>
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<td>GRPH 253</td>
<td>Publication Technology I</td>
<td>3</td>
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<tr>
<td>GRPH 352</td>
<td>Digital Image Technology</td>
<td>3</td>
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<td>GRPH 354</td>
<td>Color Imaging</td>
<td>3</td>
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<td>MKTG 374</td>
<td>Advertising Management</td>
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<td>(or MKTG 351 Marketing)</td>
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### Recommended Cognate Courses:

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<td>ART 121-122</td>
<td>Drawing Fundamentals I-II</td>
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<td>ART 105</td>
<td>History of Western Art</td>
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<td>ART 107</td>
<td>American Art</td>
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<td>ART 108</td>
<td>Fair Eastern Art</td>
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<td>ART 115</td>
<td>Stained Glass</td>
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<td>Design and Composition I-II</td>
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<td>Three-Dimensional Design</td>
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<td>ART 131</td>
<td>Watercolor Painting</td>
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<td>ART 133</td>
<td>Encaustic Painting</td>
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<td>ART 151</td>
<td>Acrylic Painting</td>
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<td>ART 152</td>
<td>Oil Painting</td>
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<td>ART 141-142</td>
<td>Ceramics I-II</td>
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<td>ART 144</td>
<td>Clay Sculpture</td>
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<tr>
<td>ART 151</td>
<td>Acrylic Painting</td>
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<td>ART 152</td>
<td>Oil Painting</td>
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<tr>
<td>ART 226</td>
<td>Collage and Assemblage</td>
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<tr>
<td>ART 235</td>
<td>Printmaking-Woodcuts and Etchings</td>
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<td>ART 325</td>
<td>Printmaking-Silkcreen</td>
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<td>ART 346</td>
<td>Plaster and Stone Sculpture</td>
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### Major in Fine Art, B.S.

- **Recommended Cognate Courses:**
  - Required Cognate Courses:
    - ART 124-125 Drawing Fundamentals I-II
    - ART 127 Three-Dimensional Design
    - ART 131 Watercolor Painting
    - ART 133 Encaustic Painting
    - ART 151 Acrylic Painting
    - ART 152 Oil Painting
    - ART 141-142 Ceramics I-II
    - ART 144 Clay Sculpture
    - ART 151 Acrylic Painting
    - ART 152 Oil Painting
    - ART 226 Collage and Assemblage
    - ART 235 Printmaking-Woodcuts and Etchings
    - ART 325 Printmaking-Silkcreen
    - ART 352 Monotype
    - ART 346 Plaster and Stone Sculpture
    - ART 370 Modern Art
    - ART 394 Professional Practices in Art
    - ART 421 Life Drawing I
    - ART 422 Life Drawing II
    - ART 426 Design and Composition III
    - ART 499 Baccalaureate Degree Project

### Major in Photography, B.S.

- **Recommended Cognate Courses:**
  - Required Cognate Courses:
    - ART 124-125 Design and Composition I-II
    - ART 241-242 Photography I-II
    - ART 243 Color Photography I
    - ART 261 Graphic Design I
    - ART 277 History of Photography
    - ART 317 Design: Online
    - ART 370 Modern Art
    - ART 394 Professional Practices in Art
    - ART 426 Design and Composition III
    - ART 441 Portrait Photography
    - ART 443 Commercial Photography
    - ART 444 Color Photography
    - ART 446 Digital Photo Imaging

### Associate Degree in Graphic Design, A.S.

- **Required Cognate Courses:**
  - ART 105 History of Western Art
  - ART 124-125 Design and Composition I-II
  - ART 127 Three-Dimensional Design
  - ART 131 Watercolor Painting
  - ART 133 Encaustic Painting
  - ART 151 Acrylic Painting
  - ART 152 Oil Painting
  - ART 141-142 Ceramics I-II
  - ART 144 Clay Sculpture
  - ART 151 Acrylic Painting
  - ART 152 Oil Painting
  - ART 226 Collage and Assemblage
  - ART 235 Printmaking-Woodcuts and Etchings
  - ART 325 Printmaking-Silkcreen
  - ART 352 Monotype
  - ART 346 Plaster and Stone Sculpture
  - ART 370 Modern Art
  - ART 394 Professional Practices in Art
  - ART 421 Life Drawing I
  - ART 422 Life Drawing II
  - ART 426 Design and Composition III
  - ART 499 Baccalaureate Degree Project

### Minor in Art

- **Required Cognate Courses:**
  - ART 124-125 Design and Composition I-II
  - ART 127 Three-Dimensional Design
  - ART 131 Watercolor Painting
  - ART 133 Encaustic Painting
  - ART 151 Acrylic Painting
  - ART 152 Oil Painting
  - ART 235 Printmaking-Woodcuts and Etchings
  - ART 325 Printmaking-Silkcreen

### Minor in Art History

- **Required Cognate Courses:**
  - ART 105 History of Western Art
  - ART 106 History of Far Eastern Art
  - ART 124-125 Design and Composition I-II
  - ART 241-242 Photography I-II
  - ART 243 Color Photography I
  - ART 277 History of Photography
  - ART 394 Professional Practices in Art
  - ART 441 Portrait Photography
  - ART 443 Commercial Photography
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.

Fine Art

LOWER-DIVISION COURSES:

ART 115 2 S
Stained-Glass Design
An introduction to stained-glass design, including copper foiling and leading techniques. One lecture and three hours laboratory weekly.

ART 121-122 2-2 A-W
Drawing Fundamentals I-II
A foundation course developing the student’s ability to communicate and express creative ideas using line, shape, value, and texture. One lecture and two hours laboratory weekly.

ART 124-125 3-3 A-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.

ART 127 2 A
Three-Dimensional Design
The perceptual, spatial, and structural principles of well-ordered three-dimensional forms. Includes assignments introducing techniques of modeling and assemblage.

ART 131 2 A
Watercolor Painting
Fundamentals of watercolor in landscape, still-life, and nonrepresentational painting. Includes work both in studio and on location. One lecture and three hours laboratory weekly. Odd years.

ART 132 2 W
Oil Painting
Introduction to painting with oils. Transparent and opaque techniques are studied in rendering still-lifes and landscapes. One lecture and three hours laboratory weekly. Odd years.

ART 133 2 W
Encaustic Painting
Introduction to 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 three hours laboratory weekly. Odd years.

ART 141 2 A, W, S
Ceramics I
Introduction to materials and techniques in creating hand-built and wheel-thrown ceramic forms. One lecture and three hours laboratory weekly.

ART 142 2 W
Ceramics II
Exploration of ceramics techniques and processes at the intermediate level. One lecture and three hours laboratory weekly. Prerequisite: ART 141. Even years.

ART 144 2 W
Clay Sculpture
A basic study in creating sculptural forms in clay with additive and subtractive techniques. Figurative and abstracted subject matter. One lecture and three hours laboratory weekly. Odd years.

ART 151 2 A
Acrylic Painting
Introduction to painting with acrylics. Exploration of color and brush techniques through a variety of subjects and styles. One lecture and three hours of laboratory weekly. Even years.

ART 152 2 W
Oil Painting
Introduction to painting with oils. Transparent and opaque techniques are studied in rendering still-lifes and landscapes. One lecture and three hours laboratory weekly. Even years.

ART 190 2 S
Student Exhibition
A survey of selected works produced by students enrolled in Art and Design courses. (See also ECED 314.)

ART 226 2 S
Collage and Assemblage
The artistic use of paper, found objects, and other nontraditional media; historical examples and the creation of two- and three-dimensional projects. One lecture and three hours laboratory weekly. Odd years.

ART 235 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 three hours laboratory weekly. Prerequisite: ART 121 or 122. Even years.

ART 241 2 S
Ceramics III
Advanced study in creating ceramic forms, formulating glazes, and firing the kiln. One lecture and three hours laboratory weekly. Prerequisites: ART 141, 142. Even years.

ART 246 2 S
Plaster and Stone Sculpture
Continued study in creating three-dimensional forms, using subtractive methods in stone and plaster. One lecture and three hours laboratory weekly. Odd years.

ART 299 3 A, W, S
Associate Degree Project
An individual project course required of all associate-degree art 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. In-Progress (“IP”) grading system.

ART 341 2 S
Printmaking-Silkscreen
The techniques of silkscreen printing including cut stencil and photostencil. One lecture and three hours laboratory weekly. Prerequisite: ART 121 or 122.

ART 342 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 two hours laboratory weekly. Prerequisite: ART 121 or 122. Odd years.

ART 343 2 S
Portrait Drawing
Advanced drawing course in realistic rendering of the human head and features. One lecture and two hours laboratory weekly. Prerequisites: ART 121 or 122. Even years.

ART 346 2 S
Design and Composition III
Integration and application of basic design principles through a series of comprehensive projects. Prerequisites: ART 124-125.

ART 404 2 W
Metal Sculpture
The materials and techniques of welded metal to create sculptural forms, both representational and nonobjective. One lecture and three hours laboratory weekly. Even years.

ART 421 2 S
Life Drawing I
A course to improve visual skills and accurate portrayal while drawing the human figure. One lecture and two hours laboratory weekly. Prerequisites: ART 121 or 122.

ART 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 two hours laboratory weekly. Prerequisite: ART 121 or 122. Odd years.

ART 498 3 A, W, S
Honors Project
Required of baccalaureate degree art majors in the Honors Program in place of ART 499. (See ART 499 for course description.) In-Progress (“IP”) grading system.

ART 499 3 A, W, S
Honors Project
Required of baccalaureate degree 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 degree do a separate degree project for each degree earned. In-Progress (“IP”) grading system.
An introduction to digital color printing, covering compression of files, color management, ICC profiles, workflow curves, unsharp mask tool, color correction, and color workflow. One lecture and two hours laboratory weekly. Prerequisite: ART 446.

ART 452 The Fine Print I
An advanced photography printing course using large format camera. Refined printing using cold-light enlargers and archival treatments. Ninety minutes lecture and three hours laboratory weekly. Even years.

ART 453 The Fine Print II
Second stage of refined printing with large format negatives. Ninety minutes lecture and three hours laboratory weekly. Even years.

Photography

ART 444 Color Photography II
Professionalism in color photography. Includes use of filters, business of photography, creating publishable photographs, transfers and cross processing. Teaching style is slide critiques. Prerequisite: ART 243.

ART 446 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. Prerequisites: (Mac competency), ART 241.

ART 455 Architectural Photography
Use of 2 1/2" and 4 x 5 cameras to record interior and exteriors of architectural subjects. Lighting techniques blend natural light and flash. Ninety minutes lecture and three hours laboratory/field work weekly. Odd years.

History of Art

ART 105 History of Western Art
Major artists and monuments in Western Civilization from its origins to the present, with particular emphasis on the relationship between art and the epoch during which it was created.

ART 107 American Art
A study of architecture, graphic art, painting, photography, and sculpture in the United States from the colonial period to the present. Odd years.

ART 108 History of Far Eastern Art
An overview of art and architecture created in China, Japan, India, and Southeast Asia. Even years.
**Art and Design**

**ART 264  2 A**
**History of Graphic Design**
The history of graphic design and visual communications from the development of ancient writing of the Sumerians progressing through twentieth-century advances in graphic design: major trends, developments, influences, and directions. Students completing this course will be able to recognize, analyze, and understand important historical and world-wide cultural influences found in graphic design and visual communication. Odd years.

**ART 277  3 A**
**History of Photography**
Analysis of theories and techniques of major photographers in America and Europe from the inception of photography to the present.

**ART 278  3 W**
**Women Artists**
Female artists in the Western World from the Renaissance to the present, with particular focus on the Nineteenth and Twentieth centuries. Even years.

Upper-division courses:

**ART 370  4 S**
**Modern Art**
The Avant-garde in European and American art from Manet to the present. Includes architecture, graphic art, painting, performance, photography, and sculpture. Prerequisite: Art 105.
Major in Psychology, B.A., B.S.

➤ B.A.: A minimum of 50 hours, including all required core and emphasis courses noted below (24 in the upper division). Note: Students getting a B.A. in Psychology must take required cognate courses, but have no elective requirement.

➤ B.S.: A minimum of 61 hours in the core and emphasis (30 in the upper division).

➤ Required Core Courses: (22 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>PSYC 121</td>
<td>General Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 122</td>
<td>Psychology Seminar*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 130</td>
<td>Intro to Psych Major</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 322</td>
<td>Research Design</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 394</td>
<td>Colloquium**</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 444</td>
<td>History and Systems of Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 490</td>
<td>Issues in Religion, Ethics, and the Human Sciences</td>
<td>4</td>
</tr>
</tbody>
</table>

➤ Emphasis (choose one):

1. Psychological Science (28 hours)

➤ Required Courses:

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>PSYC 334</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 334L</td>
<td>Child Development Lab</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 344</td>
<td>Psychology of Personality</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 364</td>
<td>Social Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 436</td>
<td>Physiological Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 445</td>
<td>Learning and Memory</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 323</td>
<td>Introduction to Experimental Psychology</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 499</td>
<td>Systematic Issues in Psychology</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional hours (minimum 11) from upper division PSYC courses.

* PSYC 122 must be taken before the junior year.
** PSYC 394 is required each quarter of the sophomore and junior years.
Bachelor of Social Work, B.S.W.

A minimum of 64 hours in social work (53 upper division)

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 objectives 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 objectives provide the standard by which the quality of education and professional competencies of students may be assessed. The major objectives include the following:

1. To prepare students for beginning generalist professional social work practice. This includes work with individuals, small groups, families, organizations, communities, and administrative and legislative systems.
2. To provide students with an awareness of the relevance to today’s practice of the history and philosophy of the social work profession and an understanding of the current issues and social welfare policies that affect client systems and generalist practitioners.
3. To provide students a strong knowledge base, from an ecological perspective, of the bio-psycho-social, spiritual, and cultural factors that affect human behavior throughout life.
4. To prepare students with a working knowledge of quantitative and qualitative research methodologies at the micro, mezzo, and macro levels of practice, with emphasis on incorporating techniques for systematic evaluation of practice and awareness of technological advances.
5. To guide students in developing values, ethics, standards, and conduct vital to the social work profession and to provide supervised field practicum experiences that allow opportunity for continued growth and application of practice knowledge and skills.
6. To provide social work resources to the community (Napa and Sonoma Valleys, Lake County, the college environment, and the church at large) needing social services, consultation, and practice skills from social work faculty and students.
7. To provide students with a greater appreciation of human diversity, with special attention to the practice knowledge and skills related to the specific populations-at-risk in surrounding communities.
8. To provide students with an understanding of social and economic injustices, including oppression and discrimination, and the skills to promote social change effectively.

9. To prepare students for lifetime learning and critical thinking through an educational process that combines a liberal arts foundation with professional social work.

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, personal statement, and reference letters.
2. Complete the personal admissions interview.

The Program Admissions Committee applies the following criteria in evaluating applications:

• Successful completion of required prerequisite courses
• Satisfactory academic record
• Effective oral-communication skills
• Effective written-communication skills
• Attitudes, behaviors, and ethics appropriate to the social work profession

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, and behavioral standards. (The Social Work Student Handbook contains further information on criteria for admission to the program, continuation in it, and the appeal process.)

> Required Core Courses:

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Research Design</td>
<td>4</td>
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<td>SOCI 355</td>
<td>“Racial” and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 121</td>
<td>Introduction to Social Work</td>
<td>4</td>
</tr>
<tr>
<td>SOWK 232</td>
<td>American Social Problems</td>
<td>4</td>
</tr>
<tr>
<td>SOWK 275</td>
<td>History and Philosophy of Social Welfare Institutions</td>
<td>3</td>
</tr>
<tr>
<td>SOWK 368</td>
<td>Principles of Counseling</td>
<td>4</td>
</tr>
<tr>
<td>SOWK 376</td>
<td>Human Behavior in the Social Environment</td>
<td>3</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>SOWK 382</td>
<td>Practice Theory I</td>
<td>4</td>
</tr>
</tbody>
</table>

SOWK 383 Practice Theory II 4
SOWK 394 Colloquium* 2
SOWK 465 Practice Theory III 4
SOWK 468 Social Welfare Policy and Contemporary Social Issues 4
SOWK 476 Field Experience I 5
SOWK 477 Field Experience II 4
SOWK 478 Field Experience III 6
SOWK 486 Integrative Field Seminar I 1
SOWK 487 Integrative Field Seminar II 1
SOWK 488 Integrative Field Seminar III 1

* SOWK 394 is required each quarter of the sophomore and junior years.

> Electives (8 hours): Electives must be selected in consultation with the Social Work adviser.

> General Education Requirements: The same as for the B.S. degree except that the health requirement (VI-A) is fulfilled by the major.

> Recommended Course: Students who intend to seek employment in California are strongly urged to include Spanish as a second language. See especially SPAN 111-112 Beginning Spanish.

Minor in Psychology

A minimum of 30 hours in psychology (12 hours upper division) including the following:

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</tbody>
</table>
Behavioral Science

Anthropology
Lower-division course:

ANTH 124 4 W, S
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

PSYC 121 3 W, S
Psychology Seminar
An introductory seminar emphasizing the exploration and discussion of psychological issues. Topics include critical analysis of psychological research, professional and occupational roles, and religious, ethical, and social implications of psychological theory and data.

PSYC 122 4 W, S
Human Development
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.

PSYC 227 3 A, W
Conflict Resolution and Relationship Skills
(See SOWK 227.)

Upper-division courses:

PSYC 322 4 W
Research Design
Methods of inquiry in the behavioral sciences from conception of idea to analysis of results. Includes the experiment, survey research, observational methods, and program evaluation. Requires a laboratory that introduces the student to the Statistical Package for the Social Sciences (SPSS). Prerequisite: MATH 222.

PSYC 323 4 S
Introduction to Experimental Psychology
Research design and procedures in the psychological laboratory. Requires a major research project and laboratory. Prerequisites: MATH 222, PSYC 322.

PSYC 334 3 A
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 among innate development and environmental influences. Covers infancy through adolescence. Note: psychology majors must also take PSYC 334L.

PSYC 334L 1 A
Child Development Lab
Review and actual practice of research methods in the study of preschool and elementary school age children.

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.

PSYC 336 4 W
Adult and Geriatric Development
(See also SOWK 368.)
A developmental exploration of early adulthood through the elder years. Focus on the main tasks, milestones, life events, problems, and fulfillments of this aging process. Emphasis on the impact of societal, cultural, racial, and ethnic influences.

PSYC 338 4 A
Abnormal Psychology

PSYC 339 1 A, W, S
Colloquium
(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 344 3 A
Psychopharmacology
The drugs that affect behavior through action on the nervous system. Major psychoactive drug groups include antianxiety, antidepressant, antipsychotic, stimulant, and drugs of abuse. Related issues of drug distribution, administration, dosage, absorption and fate.

PSYC 354 4 A
Social Psychology
The psychological principles underlying group behavior and the effects of the group on individual behavior; attitude change, conformity, aggression, prejudice; and interpersonal attraction, altruism and attribution theory. Three lectures and one laboratory weekly.

PSYC 368 4 W
Principles of Counseling
(See also SOWK 368.)
This practicum course offers an introduction to the work, ethical issues, and theories of counseling. Emphasis on beginning to develop basic helping relationship skills, evaluation of one's personal strengths and weaknesses and establishing a beginning personal philosophy of counseling. Recommended prior course: PSYC 344 or 358; or permission of the instructor.

PSYC 369 3 A
Gender Issues
Topical and current interest in social work and psychology. Includes guest speakers, progress reports on student and faculty research, and presentations on current professional issues. Required of all sophomore and junior majors. Students register once (fall) for the entire year. In-Progress (“IP”) grading system.

PSYC 399 1-2 A-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 for professional presentation. In-Progress (“IP”) grading. Prerequisite: Approval of the instructor.

PSYC 400 3 A
Psychology of Religion
Religious experience, behavior, and development from the perspective of dynamics and research psychologies. Two hours may be applied toward the general education requirement in religion. Odd years.

PSYC 400L 4 S
Psychological Anthropology
The physiological explanations of behavior; brain-behavior relationships; sensory, neural and motor structures significant to human experience.

PSYC 444 4 S
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.

PSYC 445 4 W
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 weekly.

PSYC 450 4 S
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 weekly. Recommended prior course: MATH 222.
Behavioral Science

PSYC 490  4 W
Issues in Religion, Ethics, and the Human Sciences
Explorations 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. Open to senior majors in the Behavioral Science department and to others by permission of the instructor.

PSYC 499  4 A
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. Limited to senior psychology majors.

Social Work

Lower-division courses:

SOWK 121  4 A, W
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 A, W
 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 S
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 A, 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 W
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 275  3 A
History and Philosophy of Social Welfare Institutions
Based upon changing value systems and philosophies, the attempts of society and social welfare institutions to meet human needs. Examination from both historical and current perspectives. Prerequisites: SOWK 121, PLSC 124, HIST 101-102 or permission of the instructor.

Upper-division courses:

SOWK 336  4 W
Adult and Geriatric Development
(See PSYC 336.)

SOWK 368  4 W
Principles of Counseling
(See PSYC 368.)

SOWK 376  3 A
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 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 older 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. Prerequisites: SOWK 376, or permission of instructor.

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 weekly Prerequisites: SOWK 368, 376, 377 or permission of the instructor. Limited to B.S.W. majors.

SOWK 383  4 A
Practice Theory
II
Emphasis on the generalist model of practice with small groups and family systems. The macro level of intervention as it relates to group goals, structure, dynamics and processes. Focus on development of group basic work skills and techniques in working with groups of various composition and age. Prerequisites: SOWK 368, 376, 377 or permission of the instructor. Enrollment limited to B.S.W. majors.

SOWK 390  3 A
Gender Issues
(See PSYC 390.)

SOWK 394  1 A, W, S
Colloquium
(See PSYC 394.)

SOWK 465  4 S
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. Prerequisites: SOWK 382 and 383 or permission of the instructor. Enrollment limited to B.S.W. majors.

SOWK 486  4 S
Social Welfare Policy and Contemporary Social Issues
Emphasis on the philosophical and historical development of welfare policy. Focus on policy analysis, critical thinking and current political issues at the state and federal levels as they impact diverse client populations. The active role of the generalist social worker in this process. Prerequisites: SOWK 272, ECON 261 or permission of the instructor.

SOWK 476  5 A
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. Must be taken concurrently with SOWK 383 and 486. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program.

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. Must be taken concurrently with PSYC 322 and SOWK 487. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program.

SOWK 478  6 S
Field Experience III
A placement of 180 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. Must be taken concurrently with SOWK 465 and 488. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program.

SOWK 486  1 A
Integrative Field Seminar
I
A seminar to facilitate the transition from theory to practice, with particular emphasis on social work values and ethics. Taken concurrently with SOWK 476.

Behavioral Science

Field Experience

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. Must be taken concurrently with SOWK 383 and 486. Enrollment limited to senior B.S.W. majors with full acceptance into the Social Work Program.
Behavioral Science

SOWK 487 1 W
Integrative Field Seminar II
A seminar session to facilitate a continued integration of theory and practice issues, with particular emphasis on agency-based research. Taken concurrently with SOWK 477.

SOWK 488 1 S
Integrative Field Seminar III
A seminar experience 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 agency-based research and team consultation skills. Taken concurrently with SOWK 478.

SOWK 495 1-3 A, W, S
Independent Study
Limited to advanced students wishing to do independent research under direction of the department faculty.

SOCI 214 4 S
The Family
(See SOWK 214.)

SOCI 232 4 A, W
American Social Problems
(See SOWK 232.)

Upper-division courses:

SOCI 355 3 W
“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 A
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 A, W, S
Independent Study
Limited to advanced students wishing to do independent research on a specific topic of current social work interest and its implication for integrative practice.

Sociology

Lower-division courses:

SOCI 121 4 A, 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.
Faculty
Terrence Trivett, chair; John Duncan, Floyd Hayes, Bryan Ness, Robin Vance, Aimee Wyrick
Departmental Office: 121 Clark Hall; 965-6635, 965-6633

Degrees and Programs
Biology, B.S. .................................................................63
Biology, B.A. .................................................................64
Natural Science, B.S. .....................................................64
Teaching Credential .......................................................64

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 Department of Biology 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, law, and veterinary medicine.

On-campus studies may be enriched by field experiences at the Albion Field Station on the Mendocino Coast.

Major in Biology, B.S.
➤ A minimum of 60 hours (30 upper division) including the following:
➤ Required Core Courses:
BIOL 111-112-113 Biological Foundations 5-5-5
BIOL 222 Introduction to Research Methods 2
BIOL 233 Principles of Ecology 4
BIOL 320 Cellular and Molecular Biology 4
BIOL 348 Systems Physiology 5
BIOL 354 Genetics 4
BIOL 396 Seminar (4 quarters) 2
BIOL 450 Philosophy of Origins 3
➤ Electives: 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 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)

➤ Required Cognate Courses:
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

➤ Recommended Cognate Courses:
CHEM 381 Biochemistry I (4)
MATH 131 Calculus I (4)
Premedical and predental students:
The B.S. degree curriculum exceeds all undergraduate science requirements for premedical and predental students.

Major in Biology, B.A.
➤ A minimum of 48 hours (24 upper division)
Core and cognate requirements are the same as those for the B.S. degree. Electives in the major: 9 hours in biology from those listed above for the B.S. degree. BIOL 412 is not applicable toward the B.A. degree.

Major in Natural Science, B.S.
This major satisfies the preconditions for science program subject-matter approval by the California Commission on Teacher Credentialing. The core requirement of 64 quarter hours of course work corresponds to typical science subjects commonly taught in California public schools, and the concentrations available treat the subject matter at a depth more than adequate for teaching the higher level science courses in biology, chemistry, and physics.

➤ Required Core Courses:
ASTR 115 Astronomy 5
ASTR 173 Meteorology 1
BIOL 111-112-113 Biological Foundations 5-5-5
BIOL 331 Marine Science 4
BIOL 450 Philosophy of Origins 3
CHEM 111-112 General Chemistry 5-5-5
GEOI 112-113 Geology 4
GSCI 345 Environmental Science 3
HIST 390 History and Philosophy of Science 3
PHYS 111-112 General Physics 4-4-4
PHYS 112-113 (or PHYS 131-132-133*)
➤ Emphases (choose one):
1. Biology Emphasis (15-16 hours)
BIOL 320 Cellular and Molecular Biology 4
BIOL 233 Principles of Ecology 4
2. Environmental Emphasis (18 hours)
BIOL 348 Systems Physiology 5
BIOL 354 Genetics 4
BIOL 396 Seminar (4 quarters) 2
MICR 134 General Microbiology 5
One of the following courses:
BIOL 323 Vertebrate Biology (4)
BIOL 325 Flowering Plants (3)
Required Cognate Courses:
CHEM 101 Survey of Organic Chemistry (4)
CHEM 103 Survey of Biochemistry (4)
For emphases in chemistry and physics, see under those departments.

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. This program meets the newly established standards of quality and effectiveness and has been approved by the State of California Commission on Teacher Credentialing. A brochure describing the new program and its requirements is available in the Biology department office. Students are invited to discuss the program with the Teacher Education Adviser in the Biology department. Those who plan to teach on the secondary level should consult with the Credential Analyst in the Department of Education 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 Biology
➤ A minimum of 30 hours (12 upper division) including the following:
BIOL 111-112-113 Biological Foundations 5-5-5
BIOL 450 Philosophy of Origins 3

Biology

General Science
(May not be used for major or minor in this department)
GSCI 205 Scientific Revolutions 3 A, S
GSCI 245 Environmental Science 3 A, W, S

Agriculture
Lower-division courses:
(May not be used for a major or minor in Biology)
AGRI 211 Home Fruit Growing 3 A
AGRI 212 Home Greenhouse Gardening 3 W

Geology
Lower-division course:
(May not be used for major or minor in Biology)
GEOI 233 Geology 4 S

Biology

E Life Sciences
Lower-division courses:
(May not be used for major or minor in Biology)
Biol 105 Human Anatomy 5 A, W

Lower-division courses:
(May not be used for major or minor in Biology)
Biol 101 Human Anatomy 5 A, W

* Students electing the physics emphasis must take
PHYS 131-2-3.
Biology

MICR 134  5 A, S
General Microbiology
An introduction to microorgan-isms–the bacteria, viruses, and fungi; the use-fu lness of microorganisms in nature and manufacturing; pathogen es and immunity. Consideration of each major infectious disease with respect to its causative agent, characteristics, diagnosis, transmission, and prevention. Four lectures and one laboratory weekly.

BIOL 232  4 A
Principles of Ecology
The interaction of physical and bio- logical factors in maintaining balance within the ecosystem. Survey of world biomes and aquatic ecosystems. Laboratories examine and compare biotic com-munities and their structure on Howell Mountain. Three lectures and one laboratory weekly. Prerequisite: BIOL 111-112-113 or consent of the instructor.

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 weekly. Prerequisite: BIOL 111-112-113 or consent of the instructor.

BIOL 331  4 A
Marine Science
Introduction to oceanography, marine life, and humanity’s impact on the ma rine environment. Lecture, laboratory, and project. Prerequisites: BIOL 111-112-113 or consent of the instructor.

BIOL 348  5 A
Systems Physiology
Functions of the nervous, muscular, endocrine, cardiovascular, respiratory, renal, and reproductive systems with emphasis on regulatory mechanisms and integration. Experiments and projects use animals in adjusting to their external environment and controlling their internal environment. Laboratories involve first-hand analysis of selected aspects of the major functional systems. Four lectures and one laboratory weekly. Prerequisites: BIOL 111-112-113.

BIOL 354  4 S
Genetics
The genetics of bacteria, plants, and animals. Chromosome mapping, popula-tion and evolutionary genetics, pro karyotic and eukaryotic genetic control, and molecular genetics. Emphasis on the study of modern molecular genetic techniques and concepts. Three lectures and one laboratory weekly. Prerequisites: BIOL 111-112-113, 320.

BIOL 366  5 W
Medical Microbiology
The major groups of bacteria, viruses, and fungi that are pathogens or normal flora of humans. Laboratory work empha-sizes the culture, characterization, and identification of unknown bacteria of medical importance. Three lectures and two laboratories weekly. Prerequisite: BIOL 111-112-113 or MICR 134.

BIOL 419  5 S
Developmental Biology

BIOL 422  4 S
Advanced Human Anatomy
An intensive study of the structure of the human body. The laboratory requires extensive cadaver dissection. Two lectures and two laboratories weekly. Limited to eight students. Prerequisite: BIOL 101 with a grade of B or better.

BIOL 426  5 A
Histology
Microscopic structure of the funda-mental tissues and organs of humans and other mammals with functional correla-tions. Three lectures and two labora-tories weekly. Prerequisite: BIOL 320.

BIOL 430  4 W
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 neuroendo-crine mechanisms. Three lectures and one laboratory weekly. Prerequisite: BIOL 348.

BIOL 445  3 A
Pharmacology
Advanced molecular genetics tech-niques, including isolation of DNA, cloning, PCR, and DNA sequencing. Ethics and policies of genetic testing, cloning, gene therapy, stem cell research, and trans-genic organisms. Two lectures and one laboratory weekly. Prerequisite: BIOL 354.

BIOL 450  3 W
Philosophy of Origins
Historical and current issues relating to creation and evolution models of origins. Data and interpretations from anthropology, geology, biology, and radiometric dating with their philosoph-i-cal, theological, and scientific implica-tions and interactions. Prerequisite: BIOL 111-112-113.

BIOL 459  4 S
Immunology
The lymphoid system and its response to foreign substances by humoral or cellu-lar mechanisms that may protect or injure the host. Immunogens, immuno-globulins, complement, antigen-antibody reactions, phagocytosis, inflammation, immediate and delayed allergy, autoimmunity, and the immunology of trans-plantation, cancer and tolerance. Three lectures and one laboratory weekly. Prerequisites: BIOL 111-112-113, 320.

BIOL 495  1-3 A, W, S, Su
Independent Study
Properly qualified students in biology whose scholarship is of outstanding qual-ity may undertake a limited amount of individual investigation. Maximum of three hours permitted in any quarter, or six hours total.
Faculty
Richard Voth, chair; David Bell, Rodney Hardcastle, Henry Kopitzke, Daniel Madrid, Keith Neergaard, Lary Taylor, Marcia Toledo
Departmental Office: 317 Irwin Hall; 965-6238

Degrees and Programs
Business Administration, B.B.A. ........................................ 70
Business Administration, B.A. ........................................... 72
Business Administration, B.S. ............................................. 72
Teaching Credential ....................................................... 73
Office Administration, A.S. .............................................. 73

Degree-Completion Program
Bachelor of Science in Management, B.S.M. ...................... 195

The degree programs offered by the Department of Business Administration and Economics 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.S. (Bachelor of Science) in Business Administration is 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 for them particularly useful.

The B.A. (Bachelor of Arts) 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 than do the B.B.A. and the B.S.

The Department also offers a two-year A.S. (Associate of Science) degree in Office 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. The first two years of the college program are similar enough, however, 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.

Degree-Completion Program
Pacific Union College also offers an off-campus degree-completion program leading to the Bachelor of Science in Management. See the Center for Continuing and Professional Education (CAPE) section of this catalog.
A minimum of 104 hours from the following: 10

ACCT 343 Taxation for Corporations/Partnerships (4)
ACCT 345 Estate Planning, Gifts & Trust Taxation (3)
ACCT 451 Advanced Accounting (3)
MGMT 328 Management Information Systems (3)
* Additional hours (3 upper division) selected 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 (40 hours)
ACCT 311-312 Intermediate Accounting (3-3)
FIN 380 Capital Markets and Financial InstitutionsInvestments3
FIN 444 Investments3
FIN 463 Financial Planning and Forecasting3
FIN 488 Problems in Finance3
MGMT 466 Business and Society3

A minimum of 12 hours from the following: 12
BUAD 335 Business Law I3
BUAD 325 Business Law II3
BUAD 490 Seminar in Business1
CON 2815 Principles of Economics–Microeconomics
CON 2826 Principles of Economics–Macroeconomics
FIN 341 Finance5
MKTG 351 Marketing4
MATH 106 College Algebra4
MATH 222 Introduction to Statistics4
MATH 322 Statistical Methods3
OFAD 111 Personal/Beginning Keyboarding0-2
OFAD 116 Calculating Machines (1)

A minimum of three courses and 4 hours from the following: 4

INFS 144 PC Operating Systems (1)
INFS 145 PC Spreadsheet (1)
INFS 149 PC Databases (1)
OFAD 201 Word Processing (2 hours maximum) (or OFAD 203)

Recommended supporting courses:
BUAD 118 Personal Management (3)
BUAD 223 Personal Law (2)
OFAD 116 Calculating Machines (1)

Emphasis (choose one):

1. Accounting Emphasis (40 hours)
ACCT 307 Government & Nonprofit Accounting3
ACCT 311-312 Intermediate Accounting (3-3)
ACCT 321 Cost Accounting I3
ACCT 322 Cost Accounting II3
ACCT 341 Taxation for Individuals4
ACCT 461 Accounting Theory4

2. Finance Emphasis (40 hours)
ACCT 311-312 Intermediate Accounting (3-3)
ACCT 321 Cost Accounting I3

3. General Business Emphasis (60 hours)
MGMT 466 Business and Society3
BUAD 434 Entrepreneurship3
INFS 377 Electronic Commerce3

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

A minimum of 9 hours from the following: 9
ACCT 311-312 Intermediate Accounting (3-3)

ACCT 321 Cost Accounting I (3)

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

4. Information Systems Emphasis (40 hours)
ACCT 322 Cost Accounting II3
INFS 149 PC Databases3
INFS 229 Business Programming3
INFS 377 Electronic Commerce3
INFS 380 Database Analysis and Design3
INFS 465 Fundamentals of Data Communication3
INFS 470 Management Science4
INFS 482 Systems Development Life Cycle3
MGMT 328 Management Information Systems3
MGMT 371 Marketing Research3

A minimum of 6 hours from the following:
ACCT 311-312 Intermediate Accounting (3-3)

CPTR 115 Computer Programming (4)
CPTR 131 Computer Science (4)

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

Recommended Course:
ACCT 313 Intermediate Accounting (3)

5. International Business Emphasis (40 hours)
ECON 457 International Economics3
FIN 457 International Finance3
MGMT 417 International Management3
MGMT 466 Business and Society3
MGMT 471 International Marketing3

A minimum of two courses from the following complement, where possible, the foreign language:

ANTH 124 Cultural Anthropology
COMM 330 Intercultural Communication
GEOG 301 World Regional Geography
HIST 306 Europe Since 1314
HIST 364 Modern Asia
HIST 385 America Since 1917

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

ACCT 322 Cost Accounting II (3)
ACCT 341 Taxation for Individuals (4)
ACCT 343 Taxation for Corporations/Partnerships (4)
ACCT 345 Estate Planning, Gifts and Trust Taxation (3)

6. Management Emphasis (40 hours)
MGMT 457 International Management3
MGMT 466 Business and Society3
MGMT 481 Production Management3

A minimum of 32 hours from the following: 32

INFS 470 Management Science
INFS 482 Systems Development Life Cycle
MGMT 328 Management Information Systems
MGMT 472 Human Resources Management
MGMT 473 Labor Law and Legislation
MGMT 486 Purchasing and Inventory Control

A minimum of 9 hours from the following:
ACCT 311-312 Intermediate Accounting (3-3)

A. 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 high school in a non-English-speaking country in which classes were conducted in the language of that country.

A minimum of 9 hours from the following:
ACCT 311-312 Intermediate Accounting (3-3)
ACCT 321 Cost Accounting I (3)
ACCT 322 Cost Accounting II (3)
ACCT 341 Taxation for Individuals (4)
ACCT 343 Taxation for Corporations/Partnerships (4)
ACCT 345 Estate Planning, Gifts and Trust Taxation (3)
ACCT 451 Advanced Accounting (3)

* Additional hours (3 upper division) from the Department of Business and Economics.

A maximum of 9 hours may be applied toward the foreign language course requirements.

B. One-year sequence in college intermediate language course in the country in which classes were conducted in the language of that country.

A minimum of 9 hours from the following:
ACCT 311-312 Intermediate Accounting (3-3)

A maximum of 9 hours may be applied toward the foreign language course requirements.

B. One-year sequence in college intermediate language course in the country in which classes were conducted in the language of that country.

A minimum of 9 hours from the following:
ACCT 311-312 Intermediate Accounting (3-3)
A minimum of 90 quarter hours in the major, core courses and emphasis. (*Note: Courses used to fulfill requirements in these sections may not also fulfill requirements in another emphasis or business program.)

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

| ACCT 121 | Principles of Accounting I | 3 |
| ACCT 122 | Principles of Accounting II | 3 |
| ACCT 123 | Principles of Accounting III | 3 |
| BUAD 297 | Business Communication/Data Presentation | 3 |
| BUAD 325 | Business Law I | 3 |
| BUAD 326 | Business Law II | 3 |
| BUAD 490 | Seminar in Business | 1 |
| ECON 261 | Principles of Economics–Macroeconomics | 4 |
| ECON 265 | Principles of Economics–Microeconomics | 4 |
| FIN 341 | Finance | 1 |
| MGMT 361 | Management | 4 |
| MGMT 465 | Organizational Behavior | 3 |
| MGMT 491 | Strategic Management | 3 |
| MGMT 351 | Marketing | 4 |
| MATH 106 | College Algebra | 4 |
| MATH 322 | Introduction to Statistics | 4 |
| MATH 322 | Introduction to Statistics | 4 |
| OFAD 111 | Personal/Beginning Keyboarding | 0-2 |
| OFAD 111 | Personal/Beginning Keyboarding | 0-2 |
| OFAD 116 | Calculating Machines (1) | |
| OFAD 116 | Calculating Machines (1) | |
| ACCT 123 | Principles of Accounting III | 3 |
| ACCT 391 | Accounting Systems in Small Business | 2 |
| BUAD 297 | Business Communication/Data Presentation | 3 |
| BUAD 325 | Business Law I | 3 |
| BUAD 326 | Business Law II | 3 |
| BUAD 490 | Seminar in Business | 1 |
| ECON 261 | Principles of Economics–Macroeconomics | 4 |
| ECON 265 | Principles of Economics–Microeconomics | 4 |
| FIN 341 | Finance | 1 |
| MGMT 361 | Management | 4 |
| MGMT 465 | Organizational Behavior | 3 |
| MGMT 491 | Strategic Management | 3 |
| MGMT 351 | Marketing | 4 |
| MATH 131** | Calculus** | 4 |
| MATH 222 | Introduction to Statistics | 4 |
| MATH 322 | Statistical Methods | 4 |
| OFAD 111 | Personal/Beginning Keyboarding | 0-2 |
| ACCT 123 | Principles of Accounting III | 3 |
| ACCT 391 | Accounting Systems in Small Business | 2 |
| BUAD 297 | Business Communication/Data Presentation | 3 |
| BUAD 325 | Business Law I | 3 |
| BUAD 326 | Business Law II | 3 |
| BUAD 490 | Seminar in Business | 1 |
| ECON 261 | Principles of Economics–Macroeconomics | 4 |
| ECON 265 | Principles of Economics–Microeconomics | 4 |
| FIN 341 | Finance | 1 |
| MGMT 361 | Management | 4 |
| MGMT 465 | Organizational Behavior | 3 |
| MGMT 491 | Strategic Management | 3 |
| MGMT 351 | Marketing | 4 |
| MATH 131** | Calculus** | 4 |
| MATH 222 | Introduction to Statistics | 4 |
| MATH 322 | Statistical Methods | 4 |
| OFAD 111 | Personal/Beginning Keyboarding | 0-2 |
| OFAD 116 | Calculating Machines (1) | |

**Associate Degree in Office Administration, A.S.**

| ACCT 114 | Small Business Accounting | 3 |
| ACCT 121 | Principles of Accounting I | 3 |
| ACCT 122 | Principles of Accounting II | 3 |
| BUAD 223 | Personal Law | 2 |
| BUAD 279 | Business Communication/Data Presentation | 3 |
| ECON 265 | Principles of Economics–Microeconomics | 4 |
| ECON 328 | Small Group Communication | 3 |
| ENGL 134 | Review of English Syntax | 1 |
| GRPH 253 | Publication Technology | 3 |
| INFS 144 | PC Operating Systems | 1 |
| INFS 148 | PC Spreadsheets | 1 |
| INFS 149 | PC Databases | 1 |
| MATH 106 | Intermediate Algebra | 3 |
| MATH 106 | Calculating Machines (1) | |

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**General Education Requirements:**

- 3-4* Additional hours (4 upper division) from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).

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**General Education Requirements:**

- 3-4* Additional hours (4 upper division) from ACCT, BUAD, ECON, FIN, INFS, MGMT, and MKTG courses to total at least 104 hours in the major (core courses and emphasis).
Business Administration and Economics

MGMT 261 Introduction to Management 3
MGMT 328 Management Information Systems 3
OFAD 116 Calculating Machines 1
OFAD 121 Intermediate Keyboarding 2
OFAD 201 Word Processing - Microsoft 2
OFAD 203 Word Processing - Word Perfect 2

Courses selected from OFAD, ACCT, BUAD, ECON, FIN, INF5, MGMT, MKTG, and to total at least 36 hours in the major.

General-Education Requirements:

General-education requirements for the A.S. degree are as listed in the General Studies section of this catalog, excluding ENGL 100, ENGL 101 College English, COMM 105 Speech.

Business Administration

Lower-division courses:

BUAD 118 3 A, S

Introduction to the various aspects of real estate, including buying and selling property, negotiation 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; fire, marine, casualty, liability, life, and health insurance. Odd years.

BUAD 223 2 A, S

Personal Law

Topics include dealing with an attorney, the court system, 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 W

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. Recommended prior courses: ENGL 101, COMM 105.

Business Administration

Upper-division courses:

BUAD 325 3 A

Business Law I

A study of the legal system, with emphasis on common-law contracts, sales under Article II of the Uniform Commercial Code, secured transactions, personal property, and bailments.

BUAD 335 3 W

Business Law II

The legal system in the United States, emphasizing agency relationships, partnerships, corporations, and other economic units, beyond specific courses offered in the department. The project must be approved by the chair of the department. Maximum of three hours.

Business Administration

Lower-division courses:

BUAD 118 3 A, 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 A, S

Personal Law

Topics include dealing with an attorney, the court system, 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 W

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. Recommended prior courses: ENGL 101, COMM 105.

Accounting

Lower-division courses:

ACCT 114 3 W

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 A, W

Principles of Accounting I

Accounting practices and procedures needed in various types of ownership entities for financial reporting. Assumes prior accounting knowledge.

ACCT 122 4 W, S

Principles of Accounting II

A continuation of ACCT 121 with particular emphasis on the partner and on the corporate form of organization; income statement and balance sheet analysis. Three lectures and a three-hour computer laboratory weekly. Prerequisite: ACCT 121.

ACCT 307 3 A

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 A-W-S

Intermediate Accounting

Accounting theory and practice relating to valuation and presentation of assets, liabilities, net worth, revenue, and expense accounts. Prerequisites: ACCT 121, 122.

ACCT 321 3 S

Cost Accounting I

Introduction to cost accounting data for managerial planning, control, and decision-making. Particular emphasis on methods which produce a product. Prerequisite: ACCT 121.

ACCT 322 3 W

Cost Accounting II

Theories and practices of cost accumulation and analysis for management planning and control. Job order and process costing, activity-based cost systems, indirect-cost allocation, standard costs, variance analysis, direct vs. full costing, joint and by-product, and quality issues. Prerequisite: ACCT 121, 122, 123. MATH 222.

ACCT 341 4 W

Taxation for Individuals

Federal income taxation and tax planning for individuals. Course is designed for nontax professionals as well as for business majors and minors.

ACCT 345 3 A

Advanced Accounting

Specialized topics including partnerships, branches, consolidated statements, segment reporting. Recommended prior courses: ACCT 311-312. Odd years.

ACCT 349 4 S

Independent Study

A course designed for students qualified to undertake an advanced and independent project. (Advanced is to be understood as being beyond specific courses offered in the department.) The project must be approved by the chair of the department. Maximum of three hours.

Upper-division courses:

ACCT 343 4 S

Taxation for Corporations and Partnerships

Federal taxation and tax planning in relationship to corporations and partnerships. Even years.

ACCT 345 3 A

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. Practices sets illustrate single-entry, double-entry, cash-basis, and hybrid cash-accrual-based accounting systems; periodic financial statements, payroll, sales, and income-tax returns. Prerequisites: ACCT 121, 122.

ACCT 451 3 S

Principles of Accounting III

Analysis of accounting cost data for management planning, control, and decision-making. Cost behavior concepts, variable and relevant costing, inventory planning and control, budgeting, performance measurement and evaluation, transfer pricing, capital budgeting, and quality control. Prerequisites: ACCT 121, 122, 123, 124; MATH 222.

MATH 222, 322.

MATH 222, 322.

BUAD 118 3 A, 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. Prerequisites: ACCT 121, 122, 123; BUAD 326; ECON 361, 265; FIN 341; INF5 348; MATH 221, 222; MGMT 361; MKTG 351.

BUAD 325 3 W

Business Law II

The legal system in the United States, emphasizing agency relationships, partnerships, corporations, and other economic units, beyond specific courses offered in the department. The project must be approved by the chair of the department. Maximum of three hours.

BUAD 335 3 W

Business Law III

A study of the legal system, with emphasis on common-law contracts, sales under Article II of the Uniform Commercial Code, secured transactions, personal property, and bailments.

BUAD 371 3 A

Insurance and Risk Management

Risks 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; fire, marine, casualty, liability, life, and health insurance. Odd years.

BUAD 424 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. Prerequisites: ACCT 121, 122, 123; BUAD 326; ECON 361, 265; FIN 341; INF5 348; MATH 221, 222; MGMT 361; MKTG 351.

Upper-division courses:

BUAD 325 3 A

Business Law I

A study of the legal system, with emphasis on common-law contracts, sales under Article II of the Uniform Commercial Code, secured transactions, personal property, and bailments.

BUAD 335 3 W

Business Law II

The legal system in the United States, emphasizing agency relationships, partnerships, corporations, and other economic units, beyond specific courses offered in the department. The project must be approved by the chair of the department. Maximum of three hours.

BUAD 371 3 A

Insurance and Risk Management

Risks 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; fire, marine, casualty, liability, life, and health insurance. Odd years.

BUAD 424 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. Prerequisites: ACCT 121, 122, 123; BUAD 326; ECON 361, 265; FIN 341; INF5 348; MATH 221, 222; MGMT 361; MKTG 351.

Upper-division courses:

BUAD 325 3 A

Business Law I

A study of the legal system, with emphasis on common-law contracts, sales under Article II of the Uniform Commercial Code, secured transactions, personal property, and bailments.

BUAD 335 3 W

Business Law II

The legal system in the United States, emphasizing agency relationships, partnerships, corporations, and other economic units, beyond specific courses offered in the department. The project must be approved by the chair of the department. Maximum of three hours.

BUAD 371 3 A

Insurance and Risk Management

Risks 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; fire, marine, casualty, liability, life, and health insurance. Odd years.

BUAD 424 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. Prerequisites: ACCT 121, 122, 123; BUAD 326; ECON 361, 265; FIN 341; INF5 348; MATH 221, 222; MGMT 361; MKTG 351.
BUAD 490
Seminar in Business
Preparing to meet the demands of the job market: resume development, interviewing approaches, cover letters. Should be taken during the student’s last autumn quarter at PUC before graduation.

BUAD 493
Special Topics
An enrollment 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.

BUAD 495
Independent Study
Designed for students who are qualified to undertake an advanced and independent project. (Advanced is understood as being beyond specific courses offered in the department.) The project must be approved by the chair of the department. Maximum of three hours.

Economics

LOWER-DIVISION COURSES:

ECON 261 4 A, S
Principles of Economics—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
Principles of Economics—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.

ECON 266 4 A, W, S
Principles of Economics—International
The theory and principles of international trade and monetary and fiscal policies. Topics include comparative advantage, standard theory, H-O theory, imperfect competition, tariff and non-tariff barriers, protectionism, and economic integration. Prerequisites: ECON 261, 265 or permission of instructor. Even years.

ECON 290 3 A
Economics of Information
An economic analysis of the role of information in the decision-making process of agents in the economy. Prerequisite: ECON 261 or permission of instructor. Odd years.

ECON 342 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 A
International Economics
The theory and principles of international trade and monetary and fiscal policies. Topics include comparative advantage, standard theory, H-O theory, imperfect competition, tariff and non-tariff barriers, protectionism, and economic integration. Prerequisites: ECON 261, 265 or permission of instructor. Even years.

ECON 495 1-3 A, W, S
Independent Study
Designed for students who are qualified to undertake an advanced and independent project. (Advanced is understood as being beyond specific courses offered in the department.) The project must be approved by the chair of the department. Maximum of three hours.

Finance

UPPER-DIVISION COURSES:

FIN 321 5 A
Managerial Economics
Uses of primarily microeconomic theory in managerial decision making. Prerequisite: ECON 265. Odd years.

FIN 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.

FIN 370 3 A
Capital Markets and Financial Institutions
Evolution, structure, role, regulation and deregulation of financial institutions in the U.S. economy. Prerequisites: ECON 261, 265; FIN 341. Even years.

FIN 419 3 A
Personal Financial Planning
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. Prerequisite: ACCT 341 and FIN 341, or permission of the instructor. Odd years.

FIN 436 3 S
Real Estate Finance
Principles and methods of investing and financing in real estate. Sources of funds, qualifications of investors, property analysis, and settlement procedures. Prerequisites: ECON 261 or permission of instructor. Odd years.

FIN 444 3 S
Investments
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 prior courses: ECON 261, FIN 241 or 341. Even years.

FIN 457 3 S
International Finance
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. Prerequisite: FIN 341 or permission of instructor. Odd years.

FIN 457 3 S
International Finance
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. Prerequisite: FIN 341 or permission of instructor. Odd years.

FIN 457 3 S
International Finance
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. Prerequisite: FIN 341 or permission of instructor. Odd years.

Lower-Division Courses:

FIN 144 1 W, S
PC Operating Systems
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.

FIN 148 3 W
Problems in Finance
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. Prerequisites: FIN 341. Even years.

INFS 148 1 A, W
Information Systems
Various methods of data communication: networking, telephony, communication, various methods of data communication: networking, telephony, communication, various methods of data communication: networking, telephony, communication, various methods of data communication: networking, telephony, communication, various methods of data communication: networking, telephony, communication, various methods of data communication: networking, telephony, communication.
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 361 4 W, S
Management
The basic concepts and theory of management with particular emphasis on planning, organizing, staffing, leading, and controlling.

MGMT 363 4 W, S
Management Information Systems
Basic concepts of using information systems in organizations; the role of data processing; fundamental design considerations. Odd years.

MGMT 367 3 S
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 448 3 A
Production Management
Optimal approaches to the production of goods and services. Planning, scheduling, plant layout, production standards, quality, and cost controls. Even years.

MGMT 449 3 S
Purchasing and Inventory Control
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 450 3 A
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 459 3 W
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 460 3 A
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: ACC 321, 122, 123; ECON 261, 265; FIN 341; INF 148; MATH 222, 322; G Scott 361; MKT 143.

MGMT 465 3 W
Operational Behavior
Emphasis on the human aspects in organizations, including motivation, power, job enrichment, interperson and intergroup processes and relationships, perception, leadership, and organizational change and design.

MGMT 466 3 A
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 480 3 S
Entrepreneur 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.

MGMT 481 4 W, S
International 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.

MGMT 482 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.

Marketing

UPPER-DIVISION COURSES:

MKTG 350 4 A, 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 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 A
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.

Office Administration

LOWER-DIVISION COURSES:

OFAD 111 2 A, W
Personal/Beginning Keyboarding
For beginners and non-users. For those with little or no keyboarding skill, covers 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 116 1 A
Calculating Machines
Instruction and practice in improving speed and accuracy in the use of electronic display and printing calculators for business applications.

Business Administration and Economics
**OFAD 121** 2 W  
**Intermediate Keyboarding**  
Designed to develop and enhance the typewriting skills of speed, accuracy and proofreading 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.

**OFAD 201** 2 A, S  
**Microsoft Word**  
Applications designed to increase knowledge of word processing concepts and working skills with the Microsoft Word software. One lecture and one three-hour laboratory weekly.

**OFAD 203** 2 W  
**Word Perfect**  
Applications designed to increase knowledge of word processing concepts and working skills with the Word Perfect software. One lecture and one three-hour laboratory weekly.

**OFAD 495** 1-3 A, W, S  
**Independent Study**  
Designed for students qualified to undertake an advanced and independent project. *(Advanced is understood as being beyond specific courses offered.)* Projects must be approved by the department chair. Maximum of three hours.
Degrees and Programs

Chemistry, B.S. ................................................................. 81
Chemistry, B.A. .............................................................. 82
Chemistry, with an Emphasis in Biochemistry, B.S. ........ 82
Natural Science, B.S. ....................................................... 82
Teaching Credential ....................................................... 83

The Department of Chemistry serves students who have an interest in chemical sciences and those planning careers in various medical areas. The department has the following objectives:

- To give a thorough grounding in the principles of chemistry, both in theory and in practical experience within 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 cherished and the use of the intellect is integrated into the learning experience.

The department offers several degree options. The B.S. with a major in chemistry should be selected by the student intending to enter chemistry as a profession. The chemistry major with an emphasis in biochemistry is appropriate for those who intend to enter a professional program in one of the medical sciences. This major will also prepare the student for a career in chemistry with electives chosen in consultation with the advisor.

Students more interested in the liberal arts and languages may choose the B.A. program in chemistry. Those interested in a primary- or secondary-school teaching career may choose the B.S. with a major in natural science.

Major in Chemistry, B.S.

➤ A minimum of 60 hours (40 upper division) including the following:

- CHEM 111-112-113 General Chemistry 5-5-5
- CHEM 324 Analytical Chemistry I 3
- CHEM 324L Analytical Chemistry I Laboratory 2
- CHEM 325 Analytical Chemistry II 3
- CHEM 371-372-373 Organic Chemistry 4-4-4
- CHEM 373L Advanced Organic Chemistry Laboratory 1
- CHEM 396 Seminar .5-.5-.5-.5
- CHEM 414 Inorganic Chemistry 3
- CHEM 451-452-453 Physical Chemistry 3-3-3
- CHEM 499 Introduction to Research 1
- 2 hours from the following: 2
  - CHEM 325L, 344L, 451L, 482L

Additional upper-division hours in chemistry to be chosen in consultation with the major adviser.

➤ Required Cognate Courses:

- MATH 131-132-133 Calculus 4-4-4
- MATH 265 Elementary Linear Algebra 4
- (or MATH 267 Multivariable Calculus;
- or MATH 269 Elementary Differential Equations;
- or MATH 375 Numerical Analysis)
- PHYS 111-112-113 General Physics 4-4-4
- (or PHYS 211-212-213 Physics)

➤ Recommended Cognate Courses:

- CPTR 115 Computer Programming (4)
- PHYS 234 Elementary Modern Physics (4)
Major in Chemistry, B.A.
- A minimum of 49 hours (29 upper division) including the following:
  - CHEM 111-112-113 General Chemistry 5-5-5
  - CHEM 324 Analytical Chemistry I 3
  - CHEM 324L Analytical Chemistry I Laboratory 2
  - CHEM 325 Analytical Chemistry II 3
  - CHEM 371-372-373 Organic Chemistry 4-4-4
  - CHEM 373L Advanced Organic Chemistry 1
  - CHEM 396 Seminar .5-.5-.5
  - CHEM 414 Inorganic Chemistry 3
  - CHEM 453-454 Physical Chemistry 3-3
  - 2 hours from the following: 2
    - CHEM 325L, 344L, 431L, 482L

- Required Cognate Courses:
  - MATH 131-132 Calculus 4-4
  - PHYS 111-112-113 General Physics 4-4-4

- Recommended Cognate Courses:
  - CPTR 115 Computer Programming (4)
  - MATH 133 Calculus (4)
  - PHYS 234 Elem. Modern Physics (4)

Major in Chemistry with an Emphasis in Biochemistry, B.S.
- A minimum of 60 hours (40 upper division) including the following:
  - CHEM 111-112-113 General Chemistry 5-5-5
  - CHEM 324 Analytical Chemistry I 3
  - CHEM 324L Analytical Chemistry I Laboratory 2
  - CHEM 351-352 Physical Chemistry for Life Sciences 3-3
  - CHEM 371-372-373 Organic Chemistry 4-4-4
  - CHEM 373L Advanced Organic Chemistry Lab 1
  - CHEM 381 Biochemistry I 1
  - CHEM 386 Seminar .5-.5-.5
  - CHEM 482 Biochemistry II 4
  - CHEM 482L Biochemistry II Laboratory 1
  - 1 hour from the following: 1
    - CHEM 325L, 344L, 431L

Additional hours may be selected from BIOL 320 and upper-division chemistry courses in consultation with the major adviser.

- Required Cognate Courses:
  - BIOL 111-112-113 Biological Foundations 5-5-5
  - MATH 131-132 Calculus 4-4
  - PHYS 111-112-113 General Physics 4-4-4

- Premedical and preprofessional students: See adviser for recommended cognates.

Major in Natural Science, B.S.
This major satisfies the preconditions for science program subject-matter approval by the California Commission on Teacher Credentialing. The core requirement of 64 quarter hours of course work corresponds to science subjects commonly taught in California public schools, and the concentrations available treat the subject matter at a depth more than adequate for teaching the higher secondary science courses in biology, chemistry, and physics.

- Required Core Courses:
  - ASTR 113 Astronomy 3
  - BIOL 111-112-113 General Chemistry 5-5-5
  - BIOL 331 Marine Science 4
  - BIOL 345 Philosophy of Origins 3
  - CHEM 111 General Chemistry 5-5-5
  - CHEM 112-113 Geology 4
  - CHEM 451-452 Physical Chemistry 3-3
  - CPTR 115 Computer Programming (4)
  - MATH 131-132 Calculus 4-4
  - MATH 133 Calculus (4)
  - PHYS 111-112-113 General Physics 4-4-4

- Required Cognate Courses:
  - CHEM 381 Biochemistry I 1
  - CHEM 386 Seminar .5-.5-.5

Chemistry

Service courses:
- (May not be used for major or minor in this department)

CHEM 101
- Introductory Chemistry
  An elementary course designed to give an introduction to fundamental principles of general inorganic chemistry. Primarily for students preparing to enter an allied health or related field and/or to enroll in CHEM 102 and 111. Three lectures and one laboratory weekly. Prerequisite: Algebra I, MATH 019 or permission of the instructor.

CHEM 102
- Survey of Organic Chemistry
  A survey of the chemistry of living organisms emphasizing the normal processes occurring in the human body. Three lectures and one laboratory weekly. Prerequisite: CHEM 101.

CHEM 103
- Survey of Biochemistry
  A survey of the chemistry of living organisms emphasizing the normal processes occurring in the human body. Three lectures and one laboratory weekly. Prerequisite: CHEM 101.

Upper-division courses:

CHEM 324
- Analytical Chemistry I 3

An introduction to 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 111.

CHEM 324L
- Analytical Chemistry Laboratory 2

CHEM 351
- Physical Chemistry for Life Sciences
  (or CHEM 451 Physical Chemistry (3))

CHEM 371-372-373
- Organic Chemistry 4-4-4

CHEM 381
- Advanced Organic Chemistry Lab 1

CHEM 386
- Seminar .5-.5-.5

Those who plan to teach on the secondary level should consult with the Credential Analyst in the Department of Education 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 Chemistry:
- A minimum of 30 hours (15 upper division) including the following:
  - CHEM 111-112-113 General Chemistry 5-5-5
  - CHEM 324 Analytical Chemistry I 3
  - CHEM 324L Analytical Chemistry Laboratory 2
CHEM 324L  2 W  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; course emphasis, however, is on laboratory technique. Six hours of laboratory weekly. Prerequisite: CHEM 324.

CHEM 325  3 S  Analytical Chemistry II
The theoretical basis of chemical analysis using electrochemical, spectrophotometric and chromatographic methods. Introduction to principles of operation of current analytical instrumentation. Concurrent enrollment in CHEM 32JL strongly recommended. Prerequisites: CHEM 324L, 373, MATH 132 or permission of the instructor. Odd years.

CHEM 325L  1 S  Analytical Chemistry II Laboratory
A series of laboratory experiments coordinated with CHEM 325. Prerequisite or corequisite: CHEM 325. Odd years.

CHEM 324  3 S  Nuclear Physics and Chemistry
Properties of radioactive nuclides, nuclear structure, nuclear reactions, nuclear fission, interactions of radiations with matter and the Mossbauer effect with applications to chemistry and the cosmos. Prerequisites: MATH 131, PHYS 111-112. Concurrent enrollment in CHEM 344L strongly recommended. Even years.

CHEM 334L  1 S  Nuclear Physics and Chemistry Laboratory
A series of laboratory activities coordinated with CHEM 344. Even years.

CHEM 335-352  3-3 A-W  Physical Chemistry for the Life Sciences
The laws of thermodynamics, physical equilibria, and transport phenomena. Applications of Gibbs’ free energy, chemical equilibria, and electrochemistry to biochemical systems; chemical and enzyme kinetics and mechanisms; quantum biochemistry. Prerequisites: CHEM 324, PHYS 113, MATH 132 or equivalent. Credit may not be earned in both CHEM 331-332 and CHEM 451-452.

CHEM 371-372  4-4 A-W  Organic Chemistry
An introduction to 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 four-hour laboratory weekly. Prerequisite: CHEM 113.

CHEM 373  4 S  Organic Chemistry
A continuation of CHEM 372 and an introduction to biochemistry (carbohydrates, proteins, and lipids). Four lectures weekly. Concurrent enrollment in CHEM 373L required of all chemistry majors. Prerequisite: CHEM 372.

CHEM 373L  1 S  Advanced Organic Chemistry Laboratory
A series of lab activities coordinated with CHEM 373. Required of all chemistry majors.

CHEM 381  4 A  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 396  .5 A, W, S  Seminar
(See BIOL 396)
Some topics of current interest in mathematics and natural sciences are presented by guest lecturers. The course is graded S/F. To pass, a student must be on time and attend four of five course sessions. Prerequisite: CHEM 373. Enrollment limited to upper-division students.

CHEM 416  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. Three lectures weekly. Prerequisite: CHEM 372 and MATH 132. Even years.

CHEM 419L  1 S  Biochemistry Laboratory
A series of laboratory activities coordinated with CHEM 381. Even years.

CHEM 451L  1 A  Physical Chemistry Laboratory
A series of laboratory activities coordinated with CHEM 451.

CHEM 453  3 S  Physical Chemistry
An introduction to the Schroedinger wave equation with applications to chemical systems. Prerequisite: CHEM 452. Odd years.

CHEM 470  3 S  Natural Products
A web-based course that reviews the historical “named reactions” of organic chemistry followed by strategic planning in approaching the synthesis of complex molecules focusing primarily on retrosynthetic analysis, stereochemical control, and modern synthetic methods. Prerequisite: CHEM 373.

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, rearrangements, linear free energy relationships, and photochemistry. Prerequisite: CHEM 373. Even years.

CHEM 480  3 W  Information Metabolism
An introduction to 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 381.

CHEM 482L  1 S  Biochemistry II Laboratory
A series of laboratory activities coordinated with CHEM 482.
**Faculty**
Fred Kinsey, chair; James Chase, Rosemary Collins, Victoria Mukerji
Departmental Office: 324 Irwin Hall; 965-6437

**Degrees and Programs**

Communication, B.S. ............................................................ 87
Public Relations/Journalism, B.S. ........................................... 88
International Communication, B.A. ................................... 88
Speech Pathology (pre-professional) ................................... 89

The Department of Communication 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 also provides curricula leading to a variety of communication-related careers, with specific preparation for careers in public relations, journalism, international communication and speech pathology. The curriculum in communication is also of value to those preparing for careers in business, law, medicine, pastoral or evangelistic ministry, broadcasting, and others.

**Major in Communication, B.S.**

➤ A minimum of 60 hours (30 upper division) including the following:

- COMM 134 Media Communication Careers 3
- COMM 223 Interpersonal Communication 3
- COMM 225 Oral Interpretation 3
- COMM 226 Public Speaking 3
- COMM 327 Argumentation 3
- COMM 328 Small Group Communication 3
- COMM 329 Organizational Communication 3
- COMM 330 Intercultural Communication 3
- COMM 340 Visual Communication and Semiotics 3
- COMM 423 Communication Theory 2
- COMM 424 Communication Research I 2
- COMM 425 Communication Research II 2
- COMM 427 Persuasive Communication 3
- COMM 450 Senior Seminar in Communication Disciplines 2
- COMM 494 Communication Internship 3
- JOUR 141 Newswriting and Reporting 3
- JOUR 244 Copy Editing 2
- JOUR 434 Media Law and Ethics 3
- PREL 231 Public Relations I: Introduction 3
- PREL 337 Fund Raising 3

To complete the major, select five credit hours from courses designated COMM, PREL, or JOUR.

➤ **Required Cognate Courses:**
- GRPH 253 Publication Technology I 3
- MDIA 158 Media Production Concepts 2
This major requires one full academic year abroad to develop fluency in one of the following language emphases:

1. French Emphasis
   - A minimum of 12 hours of advanced-level French (courses numbered 300 and above) at Seminar Adventista del Salve, Collonges, France.
   - Required PUC Courses:
     - FREN 385 Business French 4
     - FREN 441 Readings in 19th Century French Literature or FREN 442 Readings in 20th Century French Literature or FREN 443 Contemporary Francophone Literature (4)
   - Required Core Courses:
     - FREN 367 French Culture and Civilization

2. Spanish Emphasis
   - A minimum of 12 hours of advanced-level Spanish (courses numbered 300 and above) at College Adventista de Sagunto, Spain; or at Universidad Adventista del Plata, Villa Libertador St. Martin, Argentina.
   - Required PUC Courses:
     - SPAN 385 Business Spanish 4
     - SPAN 441 or 442 Readings in Latin-American Literature I or II or III

3. German Emphasis
   - A minimum of 12 hours of advanced-level German (courses numbered 300 and above) at Seminar Schloss Bogenhofen, Austria, and complete a minimum of 12 upper-division hours of German while there.
   - Required Core Courses:
     - HIST 358 Americans ca. 1937 (4)
     - HIST 364 Modern Asia (4)
     - HIST 434 The History of Modern Russia (5)
   - Recommended Cognate Courses:
     - FREN 151-2-3 Intermediate French (3-4, 3-4, 3-4)
     - SPAN 151-2-3 Intermediate Spanish (3-4, 3-4, 3-4)
     - GRMN 151-2-3 Intermediate German (3-3-3)

Minor in Communication
- A minimum of 30 hours (12 upper division) including the following:
  - COMM 134 Media Communication Careers 3
  - COMM 225 Interpersonal Communication 3
  - COMM 226 Public Speaking 3
  - COMM 328 Small Group Communication 3
  - COMM 340 Visual Communication and Semiotics 3
  - COMM 423 Communication Theory 2
  - COMM 427 Persuasive Communication (or COMM 327/328 Argumentation)
  - COMM 450 Senior Seminar in Communication Disciplines 2
  - JOUR 244 Copy Editing 2
  - To complete the minor select 6 credit hours from courses designated COMM, JOUR or PRL (except COMM 105)

Minor in Public Relations/Journalism
- A minimum of 30 hours (12 upper division) including the following:
  - COMM 134 Media Communication Careers 3
  - COMM 427 Persuasive Communication 3
  - COMM 450 Senior Seminar in Communication Disciplines 2
  - JOUR 141 Newswriting and Reporting I 3
  - JOUR 244 Copy Editing 2
  - PRL 231 Public Relations I: Introduction 3
  - PRL 337 Fund-Raising 3
  - Select from the following to complete the minor: 11
    - Any course designated PRL
    - JOUR 242 Photojournalism (3)
    - JOUR 253 Publication Technology I (3)
    - JOUR 256 Publications: Design Techniques (3)
    - JOUR 343 Magazine and Feature Article Writing (3)
    - JOUR 434 Media Law and Ethics (3)

Speech Pathology
- A preprofessional program in Speech Pathology is offered for those beginning their study of Speech Pathology at Pacific Union College. This program is affiliated with the School of Allied Health at Loma Linda University. The Speech Pathology faculty at LLU provide regular assistance and counseling to the PUC Communication Department and to students interested in this program.
- The first two years of a baccalaureate degree in Speech Pathology, taken on the Pacific Union College campus, include the following course:
  - SPPA 164 Introduction to Speech Pathology 4
  - Approved courses in general education complete the preprofessional curriculum.
COMM 215 Speech Communication
A general education course that develops skill in oral communication, surveys the human communication process, and encourages responsible speaking and listening. Focuses on interpersonal, small group, and public communication. Required in the freshman or sophomore year to fulfill the general education requirement in Communication.

COMM 216 Oral Interpretation
Development of 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 217 Public Speaking
Instruction and skill development in composing and delivering speeches to diverse audiences. Covers general education requirement in communication for juniors and seniors. (Nondepartment-major freshmen and sophomores take COMM 195.)

COMM 218 Fundamentals of Dramatic Performance (See DRMA 229.)

COMM 219 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 220 Small Group Communication
Effective use of communication in small groups; analysis of the nature of group productivity, cohesiveness, and organization; experience in group discussion and problem-solving.

COMM 221 Organizational Communication
Study of and practice in communicating in work settings, emphasizing leadership, decision-making, conflict resolution, and the management of behavior in human organizations. Focuses on communication problems and variables unique to the organizational environment, and reviewing traditional and current theories.

COMM 222 Interpersonal Communication
Variables and effects of both verbal and nonverbal communication between cultures. Practical applications for careers in education, mission service, international business, social work, and foreign relations. Prerequisite: ANTH 124

COMM 223 Fundamentals of Visual Communication and Semiotics
Examination of the visual, symbolic, classificatory, and meaning-making practices at the heart of all cultural production, consumption, and communication.

COMM 224 Communication Research I
Development of skills in planning communication research and designing research instruments. Includes overview of current research topics, procedures, and findings.

COMM 225 Practicum in Communication
Study of and practice in communication in the work setting, emphasizing leadership, decision-making, conflict resolution, and the management of behavior in human organizations. Focuses on communication problems and variables unique to the organizational environment, and reviewing traditional and current theories.

COMM 226 Communication Research II
Supervised experience on a specific project under the direction of a communication professional in speech, drama or broadcasting. 30 clock hours of experience required for each hour of academic credit. Department approval in advance of project initiation required. May be repeated to a maximum of three credit hours.

COMM 227 Persuasion 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. COMM 327 may be substituted for this course.

COMM 228 Persuasion
Supervised work experience in a communication-related area. Skills in the practice of communication are used. Enrollment limited to department majors. Approval of department required. May not be taken before the end of the sophomore year. Prerequisites: COMM 134, 226; JOUR 141; PREL 251.

COMM 229 Senior Seminar in Communication Disciplines
Capstone course emphasizing professional skills, ethics, creation of portfolio, and career planning.

COMM 230 Classroom Communication
Effective teacher-student interaction in both verbal and nonverbal areas. Communication research findings applied to such topics as student motivation, self-concept, sequencing of instruction, small group processes, classroom environments, and parent/student conferences.

COMM 231 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 232 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 233 Communication Theory
Conceptual foundation for understanding the human communication process. Includes theories of models and models used in communication research. Explores variables relevant to human communication behavior. Applies theory to the scientific method in communication research. Prerequisites: COMM 134, 223.

COMM 234 Communication Research II
Supervised experience on a specific project under the direction of a communication professional in speech, drama or broadcasting. 30 clock hours of experience required for each hour of academic credit. Department approval in advance of project initiation required. May be repeated to a maximum of three credit hours.

COMM 235 Communication
Supervised experience on a specific project under the direction of a communication professional in speech, drama or broadcasting. 30 clock hours of experience required for each hour of academic credit. Department approval in advance of project initiation required. May be repeated to a maximum of three credit hours.

COMM 236 Interpersonal Communication
Variables and effects of both verbal and nonverbal communication between cultures. Practical applications for careers in education, mission service, international business, social work, and foreign relations. Prerequisite: ANTH 124.

COMM 237 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 238 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 239 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 240 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 241 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 242 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 243 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 244 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 245 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 246 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 247 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 248 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 249 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 250 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 251 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 252 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 253 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 254 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 255 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 256 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 257 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 258 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 259 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 260 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.

COMM 261 Argumentation
Exploration of logical reasoning models, fallacies in reasoning, the structure of arguments, and methods of analyzing and evaluating arguments. Two debates are held during the quarter providing experience in team preparation and delivery of persuasive arguments. Extensive research in a topic is required.
**JOUR 494**  
3 A, W, S, Su  
**Journalism Internship**  
Supervised experience in journalism. The student accrues direct experience in a professional journalistic setting as approved by the department. Enrollment restricted to department majors. Prerequisites: JOUR 141, 244; PREL 231, 232; GRPH 253.

**JOUR 495**  
1-3 A, W, S, Su  
**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 PR opportunities created by crisis situations. Prerequisite: PREL 231.

**Upper-division courses:**

**PREL 339**  
3 A  
**Public Relations III: Campaigns and Practices**  
The media of public relations and their incorporation into a public-relations plan. The elements, development, and structuring of a public-relations plan. Prerequisite: PREL 232.

**PREL 350**  
3 S  
**Media Uses and Applications**  
Principles of and practice in journalistic writing for the electronic and printed media. Exploration of principles guiding appropriate media selection and usage. Consideration given to media scheduling, marketing analysis, and demographic research. The application of specific software programs helpful in public relations is also presented. Prerequisites: JOUR 141, 244; PREL 231, 232; GRPH 253; or permission of the instructor.

**PREL 490**  
1-3 A, W, S, Su  
**Issues in Communication**  
(See COMM 490.)

**PREL 492**  
1-3 A, W, S, Su  
**Practicum in Public Relations**  
Supervised experience under the direction of a public-relations professional, usually involving work on a specific project. Approval of the department required in advance. May be repeated to a maximum of three hours. Thirty clock hours of experience required for each hour of credit. Prerequisites: JOUR 141, 244; PREL 231, 232; GRPH 253.

**PREL 494**  
3 A, 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; GRPH 253.

**PREL 495**  
1-3 A, W, S, Su  
**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 courses:**

**SPPA 164**  
4 A  
**Introduction to Speech Pathology**  
Introduction to speech and language disorders, their etiology and treatment. A survey course for majors 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.

**SPPA 250**  
3 S  
**Speech and Language of Young Children**  
(See also ECED 250.)

Faculty
Lloyd Best, chair
Departmental Office: 238 Chan Shun Hall; 965-7260

Degrees and Programs

Computer Science, B.S. ....................................................93
Computer Science, B.A. ...................................................94

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. Students whose main interest is the discipline of computer science, perhaps leading to graduate study, choose the B.S. in Computer Science. This degree is also appropriate for those wanting careers in systems or application programming. The B.A. in Computer Science prepares students for careers applying computers to other fields of interest. The department also offers a minor in computer science.

Major in Computer Science, B.S.

➤ A minimum of 60 hours (36 upper division) including the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPTR 115</td>
<td>Introduction to Computer Programming</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 131</td>
<td>Survey of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 132</td>
<td>Data Structures and Algorithms I</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 224</td>
<td>Assembly Programming</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 246</td>
<td>Object-Oriented Design</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 326</td>
<td>Computer Languages</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 346</td>
<td>Data Structures and Algorithms II</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 347</td>
<td>Database Systems</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 357</td>
<td>Computer Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 396</td>
<td>Seminar (2 quarters)</td>
<td>.5-.5</td>
</tr>
<tr>
<td>CPTR 398</td>
<td>Indiv. Programming Language Study</td>
<td>2</td>
</tr>
<tr>
<td>CPTR 426</td>
<td>Software Engineering</td>
<td>4</td>
</tr>
<tr>
<td>CPTR 447</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 455</td>
<td>Theory of Computing</td>
<td>3</td>
</tr>
<tr>
<td>CPTR 466</td>
<td>Senior Project</td>
<td>3</td>
</tr>
</tbody>
</table>

The remaining hours may be selected from the following:

Other CPTR courses
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 265</td>
<td>Elementary Linear Algebra (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 331-332</td>
<td>Probability and Statistical Theory I-II (3-3)</td>
<td></td>
</tr>
<tr>
<td>MATH 351-352</td>
<td>Introduction to Abstract Algebra I-II (3-3)</td>
<td></td>
</tr>
<tr>
<td>MATH 354</td>
<td>Number Theory (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 375</td>
<td>Numerical Analysis (4)</td>
<td></td>
</tr>
</tbody>
</table>

➤ Required Cognate Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 131-132</td>
<td>Calculus I, II</td>
<td>4-4</td>
</tr>
<tr>
<td>MATH 275</td>
<td>Logic and Sets</td>
<td>4</td>
</tr>
<tr>
<td>MATH 355</td>
<td>Discrete Methods</td>
<td>4</td>
</tr>
<tr>
<td>OFAD 111</td>
<td>Personal/Beginning Keyboarding*</td>
<td>0-2</td>
</tr>
</tbody>
</table>

* See footnote, next page.
This program permits an emphasis in the computer-science field and is designed to prepare one to be a knowledgeable user of computers in business or other applications. An alternative for a business major is to include a minor in computer science. For continuing with graduate studies, or for a greater emphasis in computer science, a student should choose the B.S. option.

Minor in Computer Science

A minimum of 30 hours (15 upper division) including the following:

- CPTR 115 Introduction to Computer Programming
- CPTR 131 Survey of Computer Science
- CPTR 132 Data Structures and Algorithms I
- CPTR 224 Assembly Programming
- CPTR 326 Computer Languages
- CPTR 346 Data Structures and Algorithms II
- CPTR 347 Database Systems
- CPTR 396 Seminar (2 quarters)
- Other CPTR or INFS courses

The remaining hours may be selected from the following:

- MATH 263 Elementary Linear Algebra
- MATH 275 Logic and Sets
- MATH 331 Probability and Statistical Theory I
- MATH 331-352 Introduction to Abstract Algebra I-II
- MATH 355 Discrete Methods
- MATH 356 Numerical Analysis
- Other Required Cognate Course:
- OFAD 111 Personal/Beginning Keyboarding

Required Cognate Courses:

- MATH 131 Calculus I
- MATH 275 Logic and Sets
- MATH 355 Discrete Methods
- OFAD 111 Personal/Beginning Keyboarding

- MATH 132 Calculus II-III
- PHYS 211-212-213
- PHYS 4-4-4

Upper-division courses:

- CPTR 336 Computer Languages
- CPTR 346 Data Structures and Algorithms II

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. Prerequisite: CPTR 132. Odd years.

- CPTR 347 Database Systems

- CPTR 348 Programming for the Internet

- CPTR 349 Introduction to Computer Program-
CPT 357 4W
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: CPT 224. Even years.

CPT 367 3A
Communications and Networking
Topics include: network topologies, routing, reliability, security, data transmission, communications protocols, error detection/correction, and the Internet. Three lectures per week. Prerequisite: CPT 132. Even years.

CPT 396 .5A, W, S
Seminar
(See BIOL 396)
Single topics of current interest in mathematics and natural sciences are presented by guest lecturers. Graded on S/F basis. To pass, a student must be on time and attend four of five course sessions. Some quarters there is a computer science-specific seminar that is independent from the joint sciences seminar. Maximum of two hours.

CPT 398 1-3 A, 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. May be repeated for additional credit. Prerequisites: CPT 132, 224.

CPT 426 4A
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. Prerequisites: CPT 132, 246. Even years.

CPT 395 1-3 A, W, S
Independent Study
With the approval of the department chair, qualified students majoring in computer science may undertake independent, directed study of a problem suited to their background and experience. Maximum of three hours.

CPT 455 3W
Theory of Computation
Theoretical models of computation. Topics include: grammars, languages, automata, the Church-Turing thesis, and computability. Three lectures per week. Prerequisite: MATH 355. Odd years.

CPT 466 3S
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.

CPT 485 1-4, Arr.
Special Topics in Computer Science
A short course on a selected computer science-related topic of interest to the general student. Course 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.
Faculty
Jean Buller, chair; Sandra Balli, Jane Berry, Lynal Ingham, Marvin Mitchell, Jim Roy
Marsha Crow, Credential Analyst
Departmental Office: 203 Education Building; 965-7265

Degrees and Programs
Early Childhood Education, B.S. ........................................ 98
Early Childhood Education, A.S. ........................................ 98
General Requirements for Credentials ............................... 98
Liberal Studies, B.S. ......................................................... 101
Non-Degree Fifth-Year Program ...................................... 102
Education, M.Ed. .......................................................... 102
Off-Campus Teacher Credential Programs (CAPE) .......... 183

Degree-Completion Program
Early Childhood Education Degree Completion .............. 185

The Early Childhood Education major prepares individuals for teaching or directing in a center for children from infancy to six years of age. Combining this major with prescribed courses in education can qualify the candidate for a California State preliminary teaching credential.

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. An SDA Basic Certificate and a California Preliminary Credential may be earned by the completion of the credential requirements described on the following pages. The Credential Analyst can provide additional information.

The second stage of credentialing to earn professional credentials may be met by an approved 45-quarter-hour fifth year or by a Master of Education degree, which can be completed in four quarters. A Master of Education in Instructional Leadership is available to students who would like to earn a master's degree in the certification process (see “Master of Education Degree” in this catalog). The 45-quarter-hour non-degree fifth year includes professional education core courses and approved post-baccalaureate electives (see page 107). Students must consult the Credential Analyst in the Education department prior to enrollment in either the fifth-year or M.Ed.

Off-Campus Credential Programs
In an off-campus program the Education department offers multiple-subject and single-subject preliminary credential programs approved by the California Commission on Teacher Credentialing. These programs of coursework are available evenings in Napa. The programs are designed for adults who hold bachelor’s degrees from accredited institutions. Student teaching is arranged at the end of the coursework. Information about admissions requirements and program schedule and location is available at the Education department or CAPE office. See Center for Continuing and Professional Education (CAPE) in this catalog.

Degree-Completion Program
Pacific Union College also offers an off-campus degree-completion program leading to the Bachelor of Science in Early Childhood Education (B.S.E.C.E.). See the Center for Continuing and Professional Education (CAPE) section of this catalog for further information.
Major in Early Childhood Education, B.S.

This major meets the course requirements for the California Child Development Permit Matrix. Students interested in a B.S. in Early Childhood Education and also wishing to obtain the California and SDA Credentials in Elementary Education may do so by combining the Early Childhood Education requirements with those for Elementary Education. See the Credential Analyst for further information.

In addition to the requirements for the A.S. degree in Early Childhood Education, a minimum of 33 hours (30 upper division) including the following:

ECED 314 Art for Children 3
ECED 330 Literature for Children 4
ECED 350 Exceptional Children in the Classroom 3
ECED 361 Administration and Supervision of Early Childhood Programs 3-3-3
ECED 366 Child, Family and Community 3
ECED 480-481 Strass Teaching Seminar 1-1
ECED 482L Directed Teaching, Early Childhood 6
EDUC 238 Computer Technology for Teachers 2
EDUC 238L Computer Technology for Teachers Lab 1
MGMT 261 Introduction to Management 3

Required Cognate Courses:

BOIE 227 Natural History of California 4
COMM 105 Speech Communication 3
FDNT 235 Nutrition 4
PSY 121 General Psychology 2
A valid American Red Cross Standard First Aid certificate
A valid certificate in Basic Life Support Cardiopulmonary Resuscitation

General Requirements for both Elementary and Secondary Credentials:

The Education Department at Pacific Union College offers a teacher education program which leads to the following credentials:

1) SDA Basic Elementary and/or Secondary certificate
2) California Preliminary Multiple Subject and/or Single Subject Credential
3) California Preliminary Multiple Subject and/or Single Subject Credential. To be eligible for a teaching credential, candidates must hold a bachelor's degree from an accredited institution, and have completed all the course work, field work, and examinations required by the professional education program.

Steps to a Teaching Credential:

1. Select a bachelor's degree that meets the subject matter competency requirements. If the degree does not meet subject matter competency requirements, then the candidate must pass the California Subject Examinations for Teachers (CSET).
2. For elementary credentials: All candidates are required to pass the CSET: Multiple Subjects exam to meet the subject matter competency requirement. It is highly recommended that candidates for the Multiple Subject credential 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.
3. For Secondary credentials: Complete one of the subject matter programs listed below (approved by the Commission on Teacher Credentialing to meet the subject matter competency requirement), OR pass CSET in the content area designated on the credential.


2. Complete EDUC 100: Classroom Observations and EDUC 101: Introduction to Teaching prior to making application to the program. These courses should be completed during the freshman and sophomore year as they are prerequisites to program admission. These courses may be taken concurrently (recommended) or in different quarters.

3. For formal application to the admission program, candidates must have either officially started an approved subject matter preparation program or have registered for, attempted, or passed the subject matter competency examinations.
4. Pass the California Basic Educational Skills Test (CBEST).
5. Complete the following professional education fieldwork, field experiences and exams. These requirements must be met by all candidates for the California Preliminary or SDA Basic credentials.

Additional Requirements for Multiple Subject/Elementary Candidates:

1. Select a bachelor’s degree that meets the requirements for the California Child Development Permit Matrix. A minimum of 33 hours including the following:
2. EDUC 184: Health, Safety and Nutrition 2
3. EDUC 182: Creative Activities for Early Childhood 3
4. EDUC 238: Computer Technology for Teachers 2
5. EDUC 482L: Directed Teaching, Early Childhood 6
6. EDUC 485L: Full-Time Student Teaching 13

Associate Degree in Early Childhood Education, A.S.

A two-year program designed to meet the requirements for the California Child Development Permit Matrix.

ECED 181 Introduction to Early Childhood Education 3
ECED 182 Creative Activities for Early Childhood 3
ECED 183 Play and Environments 3
ECED 184 Health, Safety and Nutrition 2
ECED 189 Behavior Management of Young Children 2
ECED 220 Speech and Language of Young Children 3
ECED 255 Curriculum Planning 3
ECED 260 Field Experiences Practicum (6 quarters)* 6
ECED 262 Music and Movement for Early Childhood 2
ECED 265 Child Study 1
ECED 266 Field Observation in Early Childhood Education 1
ECED 267 Observation and Evaluation 1

ECED 280 Infant/Toddler Care 3
ECED 334 Child Development** 4

*Fulfills the work-experience requirement for the Permit Matrix.
**Qualifies as a general education elective course.

Additional Requirements for Multiple Subject/Elementary Candidates:

Lesson Planning Seminar (taken at time of first methods course)
EDUC 408 Social Studies and the Arts 2
EDUC 485L: Full-Time Student Teaching 13

Additional Requirements for Single Subject/Secondary Candidates:

Lesson Planning Seminar (taken at time of first methods course)
EDUC 353 Beginning Reading and Writing 4
EDUC 356 Intermediate Reading and Writing 3
EDUC 408 Social Studies and the Arts 2
EDUC 436 Secondary Content Area Teaching Strategies 4
EDUC 483 Student Teaching Seminar 3
EDUC 485L Middle School Field Experience 1
EDUC 485L High School Field Experience 1
Pre-Session Student Teaching 0
EDUC 485L Full-Time Student Teaching 13

Additional Requirements for Candidates for a Seventh-day Adventist Certificate:

1. EDUC 390 K-12 Bible (required for Elementary, optional for Secondary)
2. 16 hours of religion, including the following specific courses:
   - RELT 331 or 332 or 333 (choose one) 3
   - HIST 340 (4) or RELT 381 and RELT 382 (2-2) 4
   - U.S. Constitution requirement (Take HIST 134-135 or PLSC 124 or HIST 356 or pass constitution examination available in the Credential Office)
Criteria for Admission to the Teacher Education Program

Preliminary Admission Status
1. A minimum grade point average of 2.5
2. Completion of EDUC 100-Classroom Observations and EDUC 101-Introduction to Teaching
3. Residence requirement: One quarter at PUC or acceptance from another teacher education program
4. Submission of complete application packet:
   a) Application form
   b) Verification of Credential Analyst Interview
   c) Verification of Education Department Advisor Interview
   d) Personal Statement
   e) Recommendation
   f) Verification of Subject Matter Competency
   g) Verification of Computer Skills
   h) Official transcripts from all high school and college work
   i) SDA church membership verification (SDA only)

Regular Admission Status
In addition to the above:
1. CBEST verification card on file in Credential Office
2. Criminal Record Clearance on file in Credential Office

Candidates must hold Regular Admission status before they will be admitted to methods courses or field experiences.

Prerequisites for Student Teaching
1. Regular acceptance into the credential program
2. Minimum cumulative GPA of at least 2.5
3. GPA of 2.7 in upper-division subject preparation program courses or passage of the appropriate CSET exams
4. Clearance from Vice-President for Student Life
5. Satisfactory completion of subject matter competency requirement:
   • Multiple Subject/Elementary: Passage of CSET-Multiple Subjects, Subtests 1, 2, 3
   • Single Subject/Secondary: 80% of approved subject matter program or passage of CSET in content area of specialty
6. Complete the following coursework and field experience requirements:
   • Single Subject/Elementary: EDUC 345, EDUC 353, EDUC 356, EDUC 480, ENGL 337, EDUC 482L-Math, EDUC 482L-Reading, Pre-Session Student Teaching
   • Single Subject/Secondary: EDUC 358 and 358L, EDUC 360-361-362, EDUC 480, ENGL 337, EDUC 485L-Middle School, EDUC 485L-High School, Pre-Session Student Teaching
7. Successful passage of the Teaching Performance Assessments 1, 2, 3

Restrictions on Accepted Courses
1. 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.
2. Methods courses without fieldwork may be taken by correspondence or directed study if approved by the department. Limit of one approved course.
3. Limit of 12 approved hours for transfer toward a master's degree.
4. All core courses in the fifth-year program must be taken at Pacific Union College with the following exceptions: EDUC 359 and EDUC 538L.

General Education Foundation Courses
The courses listed below fulfill general education requirements for all B.S. degree programs. The specified GE courses listed should be taken as part of the B.S. in Liberal Studies. Courses or course options required by general education are listed by course number. The 96 hour total assumes that the following have been completed at the secondary level: a full year each of biology, chemistry, and physics; two years of a foreign language and Algebra I and Algebra II. Students lacking these college-preparatory courses will have to use elective hours to make up the deficiencies in their foundational course work.

I. Foundations of Learning

ENGL 101-102 College English (8)
One of the following Communication courses:
COMM 103 Speech Communication (3)
COMM 225 Oral Interpretation (3)
COMM 226 Public Speaking (3)
COMM 336 Advanced Public Speaking (3)
COMM 327 Argumentation (3)
COMM 427 Persuasive Communication (3)
MATH 222 Introduction to Statistics (4)

II. Human Identity in Cultural Contexts
HIST 101-102 History of World Civilizations (8)
PHIL 101 Introduction to Philosophy (4)
PSYC 121 General Psychology (4)
PLSC 124 Introduction to American Government (3)

III. Insights of the Imagination

Literature: ENGL 301 Great Books (4)
Art history course (one of the following):
ART 105 History of Western Art (4)
ART 101 American Art (3)
ART 108 History of Far Eastern Art (3)
ART 279 Women Artists (3)
Music history course (one of the following):
MUED 105 Survey of Music (3)
MUHL 331 Music from Antiquity Through the Baroque (3)
MUHL 332 Music of the Classic and Romantic Eras (3)
MUHL 333 Contemporary Music (3)
MUHL 336 Popular Music in America (3)

IV. The Natural World

Scientific inquiry: GSC101 Scientific Revolutions (3)
CHEM 102 Survey of Organic Chemistry (4)
Science, Technology, and Culture (one of the following):
BIOL 345 Environmental Science (3)
BIOL 355 Philosophy of Biology (3)
HIST 390 History and Philosophy of Science (3)

V. Revelation, Belief, and Action
Eighteen hours of religion distributed as follows:
A minimum of 6 hours of courses with RELB prefixes
Doctrinal Studies: RELT 331 or 332 or 333
SDA Church history: RELT 381 and 382 or HIST 340
Ethics (one of the following):
RELB 315 Biblical Ethics (3)
RELB 216 Intro to Christian Ethics (3)
RELT 355 Christian Social Ethics (3)
RELT 410 Christian Bioethics (3)

Any REL. (2)

VI. Health and Fitness

twelve hours in any religion

Health and Fitness
HLED 166 Health Education (2)
ESTH 476 Physical Education for Children (3)
3 P.E. courses, including 1 aeroics (3)

VII. Skills for Daily Living

Applied Arts:
ART 314 Art for Children (3)
Personal Management Skills:
EDUC 238 Computer Technology for Teachers (2)

EDUC 238L Comp. Tech. for Teachers Lab (1)

Total General Education Hours

86

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 accomplish two objectives:
1. Provide a strong content knowledge base in the various subject areas
2. Prepare the elementary credential candidate to pass the California Subject Exam for Teachers: Multiple Subjects, passage of which is required of all candidates for the California Multiple Subject credential.

Students in the Liberal Studies major should work closely with their Education Department advisor to develop their program of studies. General education requirements, major courses, and professional education courses must be carefully scheduled if one is to complete the graduation requirements and qualify for both the California Preliminary and SDA Basic credentials within the normal four-year bachelor's degree program.

Specific general education courses must be completed as part of the Liberal Studies major. These specific requirements are outlined below, as are the requirements for the Liberal Studies major.

A minimum of 86 hours (44 in the upper division) including (1) course work in four areas, (2) one interdisciplinary or integrative course, and (3) courses used to satisfy general education requirements may not be used to satisfy requirements in the three subject areas.

1. Arts and Humanities (24 hours in major)
   Art, Drama, Ethics, Foreign Language, Linguistics, Literature, Music, Philosophy, Religion, and Rhetoric
   • ART 124 Design and Composition I (3)
   • ART 125 Design and Composition II (3)
   • DRMA 229 Fundamentals of Dramatic Performance (3)
   • ENGL 330 Literature for Children (4)
   • ENGL 335 Survey of Linguistics (4)
   • ENGL 337 ESL Teaching Methodology (4)
   • SPAA 230 Speech and Language of Young Children (4)

2. Natural Science and Mathematics (24 hours in major)
   Astronomy, Biology, Chemistry, Computer Science, Geology, Mathematics, and Physics
General requirements for program completion include:

1. Hold a bachelor’s degree from an accredited institution
2. Hold a teaching credential
3. Have a satisfactory interview with the chair of the Education department
4. Submit an application for program admission
5. Have two satisfactory recommendations on file
6. Have a satisfactory interview with the chair of the Education department

Non-Degree Fifth-Year Program

A program leading to professional certification is available as a nondegree fifth year. The fifth-year program results in SDA bachelor’s degree credit from an accredited college or university. Specific requirements are listed below:

**Professional education core requirements (17 hours; 7-year residency requirement):**

- EDUC 350 Exceptional Children in the Classroom (3)
- EDUC 351 Advanced Learning Theory (3)
- EDUC 355 Educational and Psychological Evaluation (3)
- EDUC 356 Curriculum and Instruction: Historical Perspectives (3)
- EDUC 357 Current Issues in Education (2)
- EDUC 538/L Computers in the Classroom/Lab (2+1)

Electives (28 hours; no recency requirement)

Approved upper-division/graduate electives chosen in consultation with departmental adviser

Health Education + Infant/Child/Adult CPR

**Interdisciplinary or Integrative Courses:** (3-5 hours in major)

Select one course of at least three hours which involve the examination of relationships between two or more disciplines, the synthesis of major themes, and the comparison of various forms of inquiry: ENGL 152, HIST 340, HIST 367, HIST 485, ESTH 490, PHIIL 483, PSYC 490, MUCD 435.

Master of Education Degree

A program leading to a Master of Education in Instructional Leadership is available. Students interested in this degree should see the section in this catalog describing the Master’s Degree Program. Specific questions should be referred to the Chair of the Department of Education.

**Early Childhood Education**

**LOWER-DIVISION COURSES:**

- **ECED 181** Introduction to Early Childhood Education
  - A general overview of the field of Early Childhood Education. Includes history, types of programs, facilities, teacher qualifications and duties, career opportunities, and current issues. At least 1 quarter credit of ECED 260 required concurrently.

- **ECED 182** Creative Activities for Early Childhood
  - Provides an understanding of the importance of creative and aesthetic activities in the development of young children. Includes planning and implementation of activities that promote this development, and practical experiences with various materials used in art centers. Two lectures and one laboratory weekly. At least 1 quarter credit of ECED 260 required concurrently.

- **ECED 183** Play and Environments
  - The importance of play in the learning and development of the young child. Methods explored in setting up materials in the preschool environment, creating centers, and leading projects which facilitate cognition. At least 1 quarter credit of ECED 260 required concurrently.

- **ECED 184** Health, Safety, and Nutrition
  - Prepares students working in a childcare setting to assist young children to develop good habits and attitudes affecting their health and safety. Helps meet State requirements for specified training in preservative health practices. Odd years.

- **ECED 189** Field Experience Practicum
  - An supervised field experience in the early childhood classroom with direct involvement with children and a variety of teaching experiences in the College’s child-care centers. 1-2 credit hours are taken during the first six quarters of the program. The final quarter consists of at least one day per week of teaching in the classroom’s child-care centers. At least 1 quarter credit of ECED 260 required concurrently. Prerequisites: ECED 183 and ECED 260 (3 quarter credits).

**UPPER-DIVISION COURSES:**

- **ECED 260** 1-2 A, W, S
  - Field Experience Practicum
  - The environment, curriculum, and management of infant/toddler programs. Includes observation of children between the ages of birth and three years. Even years.

- **ECED 261** Child Study
  - Knowledge of the young child’s behavior and growth that can help the teacher meet the needs of each child. Practice in different methods of observation.

- **ECED 265** 1 S
  - Field Observation in Early Childhood Education
  - Analytical observation of a variety of off-campus preschool environments.

- **ECED 267** Observation and Evaluation
  - Evaluation techniques for charting a child’s development and using this information to build a developmentally appropriate curriculum.

- **ECED 280** 1 A
  - Infant/Toddler Care
  - The environment, curriculum, and management of infant/toddler programs. Includes observation of children between the ages of birth and three years. Even years.

- **ECED 314** 2 W
  - Art for Children
  - (See ART 314.)

- **ECED 330** 4
  - Literature for Children
  - (See ENGL 330.)
ECED 334 4 A  
Child Development  
(See PSYC 334.)

ECED 350 3 S  
Exceptional Children in the Classroom  
(See EDUC 310.)

ECED 361-362-363 3-3-3 A-W-S  
Administration and Supervision of Early Childhood Programs  
An in-depth study of the administra- 
tive and supervisory responsibilities of the early childhood program director. Odd years.

ECED 366 3 S  
Child, Family, and Community  
Explores the value and necessity of 
forming a partnership between parents, teachers, and the community in sup-
porting early childhood development. 
Creative ideas are presented for working 
cooperatively toward political awareness 
and child advocacy in our heterogeneous 
culture.

ECED 480-481 1-1 A-W, A-S  
Student Teaching Seminar  
See EDUC 480-481.

ECED 482L 6 S  
Directed Teaching, Early Childhood  
Full-time participation in an off-campus 
early childhood classroom. Appli-
cation and arrangements must be made 
at least one quarter before registering for 
the course. Students must have transpor-
tation to and from teaching assignment. 
Graded S/F. Prerequisites: A minimum 
overall GPA of 2.25 and upper-division 
GPA of 2.5.

Education  
General Courses:

EDUC 100 1 A, W, S  
Classroom Observations  
A 25-hour field experience that pro-
vides practical information about class-
room 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 ad-
imitted 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 bet-
ter. This requirement may be waived on 
experience. Contact the Credential Ana-
lyst for more information.

EDUC 101 1 A, W, S  
Introduction to Teaching  
Designed to provide a general overview 
of the teaching profession. The student 
will receive information on the history of 
teaching, teaching as a profession, and 
the characteristics of successful teachers. 
The program admission process begins in 
this class.

EDUC 238L 2 A, S  
Computer Technology for Teachers  
An introduction to the use of comput-
ers in the elementary and secondary 
classroom. The course is designed to 
develop skills in using technology to 
support teaching and learning, and to 
distinguish between technology as an 
“add-on” in the classroom and technol-
gy as an integral part of the learning.

EDUC 238L Computer Technology for 
Teachers Lab  
Concurrent enrollment required in 
EDUC 238.

EDUC 333 3 A  
Educational Psychology  
The purpose of this course is to ex-
amine how children and adolescents learn 
and think in the classroom. Examines 
how characteristics such as intelligence, 
personality, cognitive and moral develop-
ment, and diversity impact student learn-
ing. Includes the study of learning theo-
ries, motivation, cooperative learning, 
assessment, and managing a classroom.

EDUC 335 2 S  
Ethical Dimensions of Teaching  
Probes the ethical and moral situations 
that teachers and students face on a regu-
lar basis. The history and development of 
current practice are examined. Emphasis 
on ideals and principles of Christian edu-
cation and their application in Seventh-
day Adventist schools.

Philosophy of American and Adventist 
education compared and contrasted. 
Emphasis on integrating faith and 
learning.

EDUC 336 2 A  
The Multicultural Classroom  
Addresses the preparation of teachers 
for the wide diversity of students they 
will encounter in their classrooms. In-
cludes an emphasis on developing meth-
ods for involving the family in the educa-
tional process. Addresses the legal basis 
for desegregation and multiculturalism in 
American Education. Also emphasizes 
the knowledge and skills needed to help 
students be better informed and proac-
tive in a multicultural society.

EDUC 350 3 S  
Beginning Reading and Writing  
A balanced, comprehensive approach to 
teaching reading and writing in pre-
kindergarten through grade three, in-
cluding 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 
efficacy and assessment. Emphasis on 
classroom prevention of failure in literacy 
for at-risk children. Prerequisites: Regular 
program admission. EDUC 336. Concur-
rent enrollment: EDUC 482L-Beginning 
Reading Field Experience.

EDUC 355 3 A  
Exceptional Children in the 
Classroom  
Introduces prospective teachers to the 
major categories of disabilities and gift-
edness, and provides strategies to meet 
the needs of these children in the general 
classroom. Students gain information 
about federal and state laws pertain-
ing to disabilities and how to write and 
implement an IEP.

EDUC 480 2 W  
Classroom Management  
Focuses on prominent classroom 
management models and helps students 
clarity their own philosophy of student 
discipline. The course is intended to as-
sist future teachers in developing their 
own management plan based on a review 
of the “best practice” models already 
being used successfully at various edu-
cational levels. Prerequisite: Preliminary 
program admission.

Elementary Methods 
Coursework:

EDUC 340 2 S  
Teaching Math and Science in 
the Elementary School  
Through interrelated activities in 
classwork and fieldwork, this course 
addresses the preparation of pre-service 
elementary teachers in science, health, 
and mathematics instruction. California 
state content standards in science, health, 
and mathematics are emphasized, as are 
the planning and implementation of ef-
f ective lessons for each area. Prerequisite: 
Regular program admission. Concurrent 
enrollment: EDUC 482L-Math Field Ex-
perience.

EDUC 353 4 W  
Teaching K-12 Bible  
A course designed to develop teaching 
objectives, materials, and strategies in 
Biblical education. Emphasis is given to 
methods of course teaching whereby Bible 
curriculum can be harmonized with the 
spiritual development of the K-12 student. 
Fulfillment of the spiritual development 
of K-12 students is also emphasized. In 
addition, special interest is given to the 
exploration and analysis of the Seventh-
day Adventist Bible curriculum. Required 
for candidates for the SDA teaching cer-
cificate.

EDUC 408 2 W  
Student Teaching, Elementary  
Elementary student teaching is divided 
into four components:  
a) EDUC 482L-Student Teaching, Begin-
ning Reading Experience (1): This 25-
hour experience must be completed in 
a K-2 classroom. It involves observing, 
assisting, and actually teaching in the 
area of beginning reading and writing 
under the direction of an experienced 
primary grade teacher. This experience 
counts as 1 hour of Student Teaching 
and is supervised and evaluated. Prerequisite: 
EDUC 356. Concurrent enrollment: 
EDUC 353.  
b) EDUC 482L-Student Teaching, Math 
Field Experience (1): This 25-hour field 
experience is completed in an upper-
grade elementary school classroom. It 
Involves observing, assisting, and actu-
ally teaching in the area of math under 
the direction of an experienced elemen-
tary grade teacher. This experience 
counts as 1 hour of Student Teaching and
is supervised and evaluated. Prerequisite: Regular program admission. Concurrent enrollment: EDUC 345.

c) Pre-Session Student Teaching: This is a two-week experience at the beginning of a school year. It 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 the student completes full-time student teaching. Prerequisite: Completion of the middle and senior high short-term field experiences. Pre-Session Student Teaching should be completed in the summer prior to the year in which full-time student teaching takes place.
d) EDUC 482L—Student Teaching, Full-Time, Elementary (13): The full-time student teaching experience occurs at the conclusion of the program. The experience lasts for 12 weeks, and is a full-time, full-day commitment. It is not possible for the student teacher to hold a day job during this experience. By the end of the experience, the student will have complete responsibility for all classroom management, instructional planning, and teaching. If the candidate is employed full-time on a Long-Term Emergency Permit, at a grade level covered by the credential, then in-service student teaching may be requested from the Education Department.

**EDUC 358L-Beginning Reading, EDUC 482L-Math, 353, 356, 408, ENGL 337, EDUC 485L:**

Beginning Reading and math field experiences—Pre-Session Student Teaching should be completed in the summer prior to the year in which full-time student teaching takes place.

d) EDUC 482L—Student Teaching, Full-Time, Elementary, or EDUC 482L—Student Teaching, Full-Time, Middle/Secondary.

**SECONDARY METHODS COURSEWORK:**

EDUC 358 **Literacy in the Content Areas**

3 A

Examinates the literacy skills that are essential for middle and secondary school students, including English Language Learners. Students explore instructional strategies for improving reading and comprehension of written materials in all content areas. In addition, students explore the process approach to writing with the goal of implementing effective writing assignments in all content areas. Prerequisites: Regular program admission, Sophomore class standing. Concurrent enrollment: EDUC 358L—Literacy Tutoring Experience.

EDUC 358L **Literacy Tutoring Experience**

1 A

Prepares and supervises 25-30 hours of tutoring a middle or high school student who is having difficulty with reading and language arts. Includes the application of tutoring strategies that have been developed in EDUC 358. The experience does not count as part of student teaching. Concurrent enrollment: EDUC 358.

EDUC 360 **Introduction to Secondary Teaching Strategies**

2 A

The first in a series of courses (including EDUC 361 and 262) designed to prepare pre-service teachers for the secondary classroom. Classroom management and lesson design are presented with adolescent characteristics in mind. Special emphasis is placed on issues related to human motivation. Prerequisites: Regular program admission, Junior or Senior class standing.

EDUC 361 **Middle School Teaching Strategies**

2 W

Examines middle school education (grades 6-8), emphasizing the need to respond in appropriate educational ways to the developmental characteristics of diverse young adolescents (ages 10-14). Students explore middle school learning, authentic assessment, block scheduling, and small schools alternating curriculum. Prerequisites: Regular program admission, EDUC 360, Junior or Senior class standing. Concurrent enrollment: EDUC 485L—Student Teaching, Middle School.

EDUC 362 **Secondary Content Area Teaching Strategies**

4 S

Addresses the preparation of single subject pre-service teachers to plan and deliver content-specific classroom instruction, state of California curriculum frameworks and/or academic standards are emphasized to help pre-service teachers understand the basic principles and primary values of their chosen discipline. Prerequisites: EDUC 360, EDUC 361, EDUC 485L—Middle School Field Experience, Junior or Senior class standing. Concurrent enrollment: EDUC 485L—Student Teaching, Senior High.

EDUC 390 **Teaching K-12 Bible**

2 A

See description under "Elementary Methods Coursework".

EDUC 483 **Student Teaching Seminar**

1 A-W-S

See description under "Elementary Methods Coursework".

EDUC 485L **Student Teaching, Middle and Senior High School**

1-15 A-W-S

Student teaching is divided into four components:

a) EDUC 485L—Student Teaching, Middle School Field Experience (1): This experience involves 25 hours of observation and teaching in the specific content area of the credential in a middle school classroom (grades 6-8). This experience counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: Regular program admission, 50% of subject matter program or passage of CSET. Concurrent enrollment: EDUC 361.

b) EDUC 485L—Student Teaching, Senior High School Field Experience (1): This experience involves 25 hours of observation and teaching in the specific content area of the credential in a senior high school classroom (grades 9-12). This course counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: EDUC 485L—Middle School Field Experience, 50% of subject matter program or passage of CSET. Departmental Review #1. Concurrent enrollment: EDUC 362.

c) Pre-Session Student Teaching: This is a two-week experience at the beginning of a school year. It 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. Prerequisite: Completion of the middle and senior high short-term field experiences. Pre-Session Student Teaching should be completed in the summer prior to the year in which full-time student teaching takes place.

d) EDUC 485L—Student Teaching, Full-Time, Middle or Senior High School (13): The full-time student teaching experience occurs at the conclusion of the program. The experience lasts for 12 weeks, and is a full-time, full-day commitment. It is not possible for the student teacher to hold a day job during this experience. By the end of the experience, the student will have complete responsibility for all classroom management, instructional planning, and teaching.

**EDUC 383, 390, 485L:**

Student Teaching-Senior High.

Concurrent enrollment: EDUC 485L—Student Teaching, Full-Time, Middle or Senior High School.

**EDUC 383L, 390L, 485L:**

Student Teaching, Middle School Field Experience, 50% of subject matter program or passage of CSET. Concurrent enrollment: EDUC 361.

**EDUC 360, 361, 362, 361, 362, 360, ENGL 337, EDUC 485L—Middle School Field Experience, EDUC 485L—Senior High Field Experience, Departmental Review #2, Pre-Session Student Teaching.**

**GRADUATE COURSE:**

Prerequisite: Admission to M.Ed., fifth-year program, or departmental approval.

**EDUC 510 **Leadership in Education**

2 A

Prerequisite: Admission to M.Ed.

**EDUC 513, 514, 515, 516:**

Advanced Learning Theory and Instructional Strategies

An in-depth examination of major theories of learning and their application to a wide variety of instructional strategies available to the classroom teacher. Analysis of instructional strategies based on the theories, identification of strategies that fit the student’s personal teaching style, and application of the major theories and assessment in evaluation of case studies. Prerequisite: EDUC 333 or permission of the instructor.

**EDUC 515 **Educational Assessment and Evaluation**

3 A, 3 Su

A multifaceted study emphasizing (a) the process of collecting information as an aid in understanding and making educational plans for pupil development, (b) integrated processes for determining the nature and extent of pupil learning and development. In addition to authentic assessment, commonly used teacher-made and standardized tests are studied.

**EDUC 515 **Curriculum and Instruction: Historical Perspectives**

3 W

Analysis and interpretation of events and issues in curriculum and instruction that have shaped American schools from the nation’s founding until the present. Course emphasizes philosophical bases of education; how diverse ideologies influence policy-making decisions.
EDUC 517  2 W, Su
Current Issues in Education
Contemporary controversial issues in public and private education. Students are challenged to understand controversial educational issues better, to become aware of possible alternatives in handling the issues, and to use their creativity to search for alternate solutions.

EDUC 523  2 Su
Strategies for Authentic Literacy Assessment and Instruction
Principles and practices of selecting methods and materials for literacy instruction and ongoing assessment for all ages. Prerequisites: teaching credential or permission of the instructor. Corequisite: Concurrent enrollment in EDUC 523L.

EDUC 523L  1 Su
Fieldwork

EDUC 524  2 Su
Seminar in Language and Literacy Instruction
A critical analysis and development of learner-centered language and literacy instructional techniques, including evaluation and selection of printed materials and computer software. Prerequisite: EDUC 523. Corequisite: Concurrent enrollment in EDUC 524L.

EDUC 524L  1 Su
Fieldwork

EDUC 530  3 W, Su
Brain Research and Learning
A critical examination of current investigations of cognitive aspects of learning.

EDUC 538  2 S, Su
Computers in the Classroom
This hands-on course uses 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. Corequisite: EDUC 538L. Prerequisite: EDUC 238L or permission of the instructor.

EDUC 538L  1 S, Su
Computers in the Classroom Lab
Students use cutting-edge technologies to enhance teaching and learning. Applications include Hyperstudio, Powerpoint, web-page design, videoconferencing, and desktop publishing. Corequisite: EDUC 538.

EDUC 595  1-3 A, W, S, Su
Independent Study
Individual studies open to students with adequate preparation in the area of proposed study. Maximum of three hours credit.

EDUC 596  1 A, 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  1-6 A, W, S
Graduate Project Practicum
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 presented at the beginning of the winter quarter. After receiving formal project approval, students implement the project and, upon completing the implementation, prepare a formal written report to be shared orally with the Education faculty and other graduate students during the spring or summer quarter. Prerequisite or corequisite: EDUC 596. In-Progress (“IP”) grade until completion of the course.
Faculty
Nancy Lecourt, chair; Linda Gill, Marilyn Glaim, Isaac Johnson, John McDowell, Janet Borisevich Mezenov, Judy Vance, Cynthia Westerbeck, Resident Artist: Mei Ann Teo
Departmental Office: Stauffer Hall; 965-7550; Fax 965-7559

Degrees and Programs
English, B.A.................................................................109
TESOL Certificate .........................................................110
Teaching Credential.......................................................110

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: recent critical approaches, history of ideas, classical studies, and Christianity and literature. They develop and refine their writing in both critical and creative writing courses.

English majors may select one of five emphases: British and American Literature, Writing, English Education, Drama, and Teaching English to Speakers of Other Languages.

Major in English, B.A.
A minimum of 54 hours, except for the Emphasis in English Education, which must meet State requirements:

➤ Required core courses for all majors in English (36 hours):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 224</td>
<td>Literary Theory</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 335</td>
<td>Survey of Linguistics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(Prerequisite: ENGL 134)</td>
<td></td>
</tr>
<tr>
<td>ENGL 346</td>
<td>Creative Writing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(nonfiction, poetry, screenwriting, short story, or writing for children)</td>
<td></td>
</tr>
</tbody>
</table>

These two courses in British and American literature:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 465</td>
<td>English Medieval and Renaissance</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 355</td>
<td>American Colonial and Romantic Periods</td>
<td>4</td>
</tr>
</tbody>
</table>

Three of the following period courses, including one American Literature course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 356</td>
<td>American Realism and Naturalism (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 357</td>
<td>American Modernism (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 466</td>
<td>The Enlightenment (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 467</td>
<td>The Romantic Age (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 468</td>
<td>The Victorian Age in Britain (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 469</td>
<td>The Modern Age in Britain (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 470</td>
<td>Contemporary Literature (4)</td>
<td></td>
</tr>
</tbody>
</table>

One of the following context courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 484</td>
<td>Literature of the Bible (4)</td>
<td></td>
</tr>
<tr>
<td>ENGL 485</td>
<td>The Classical World (4)</td>
<td></td>
</tr>
</tbody>
</table>

➤ Emphases (choose one):

1. **Emphasis in British & American Literature** (18 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 389</td>
<td>Junior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 474</td>
<td>Shakespeare</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 490</td>
<td>Senior Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

To complete the 18 hours, select from upper-division literature courses in British periods, American periods, or genre and theme courses; at least one genre or theme course is required.
2. Emphasis in Writing (18 hours)

ENGL 389 Junior Seminar 1
ENGL 490 Senior Seminar 2
Optional alternative to ENGL 389 and 490:
ENGL 494 Writing Internship (3)
Additional selections from the following (at least nine hours from courses with ENGL prefix):
ENGL 445 Creative Writing (4-16)
ENGL 348 Literary Genres (4)
GRPH 253 Publication Technology I (3)
JOUR 141 Newswriting and Reporting I (3)
JOUR 244 Copy Editing (2)
JOUR 443 Investigative Reporting (3)
(Note: Some journalism courses list JOUR 141 as a prerequisite.)

3. Emphasis in English Education (37-38 hours)

ENGL 101-102 College English 4-4
ENGL 141 Newswriting and Reporting I 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
ENGL 474 Shakespeare 4
ENGL 493 Senior Education Seminar 1
COMM 225 Oral Interpretation* 3
JOUR 141 Newswriting and Reporting I 3

4. Emphasis in Drama (18 hours)

DRMA 141 Dramatic Arts Society 1-1-1
DRMA 229 Fundamentals of Dramatic Performance 3
DRMA 239 Techniques of Stage Production 3
ENGL 348 Literary Genres: Drama 4
ENGL 352 Literary Theme: Bay Area Theater Season 3
ENGL 473 Shakespeare in Performance 3

5. Emphasis in Teaching English to Speakers of Other Languages (18 hours)

ENGL 336 Second Language Acquisition 4
ENGL 337 ESL Teaching Methodology 4
ENGL 443 ESOL Curriculum Development and Classroom Management 4
ENGL 444 ESOL Testing 2

ENGL 445 Cultural & Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2

TESOL Certificate (26-31 hours)

ENGL 336 Second Language Acquisition 4
ENGL 337 ESOL Teaching Methodology 4
ENGL 443 ESOL Curriculum Development and Classroom Management 4
ENGL 444 ESOL Testing 2
ENGL 445 Cultural and Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2
From the following courses, 8 hours:
ENGL 291 ESOL Tutoring Practicum (1)
ENGL 434 Advanced English Syntax (4)
ANTH 124 Cultural Anthropology (4)
COMM 330 Intercultural Communication (3)
SPAR 264 Phonetics and Speech Science (3)

Students seeking the TESOL Certificate but not majoring in English will also take ENGL 144 Review of English Syntax (3) and ENGL 335 Survey of Linguistics (4).

Teaching Credential
Students desiring to enter a program of studies leading to a California teaching credential in English should take the English Education Emphasis. This program meets established standards of quality and effectiveness and has been approved by the State of California Commission on Teacher Credentialing. A brochure describing the new program and its requirements is available in the English department.

Those planning to teach English on the secondary level should consult with the Credential Analyst in the Department of Education 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 English
> A minimum of 30 hours (12 upper division) including the following:
ENGL 224 Literary Theory 4
ENGL 335 American Colonial and Romantic Periods 4
ENGL 465 English Medieval and Renaissance 4
ENGL 336 American Realism and Naturalism 4

ENGL 357 American Modernism 4
ENGL 466 The Restoration & the Eighteenth Century 4
ENGL 467 The Romantic Age 4
ENGL 468 The Victorian Age in Britain 4
ENGL 469 The Modern Age in Britain 4
ENGL 470 Contemporary Literature 4

Minor in Writing
> A minimum of 30 hours (12 upper division) including the following:
ENGL 346 Creative Writing 12-20
ENGL 347 Literary Themes 2
ENGL 443 ESOL Curriculum Development and Classroom Management 4
ENGL 444 ESOL Testing 2

ENGL 356 American Realism and Naturalism 4
ENGL 445 Cultural & Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2

ENGL 346 Creative Writing 12-20
ENGL 347 Literary Themes 2
ENGL 443 ESOL Curriculum Development and Classroom Management 4
ENGL 444 ESOL Testing 2

ENGL 356 American Realism and Naturalism 4
ENGL 445 Cultural & Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2

ENGL 444 ESOL Testing 2

ENGL 445 Cultural & Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2

TESOL Certificate (26-31 hours)

ENGL 336 Second Language Acquisition 4
ENGL 337 ESOL Teaching Methodology 4
ENGL 443 ESOL Curriculum Development and Classroom Management 4
ENGL 444 ESOL Testing 2
ENGL 445 Cultural and Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2
From the following courses, 8 hours:
ENGL 291 ESOL Tutoring Practicum (1)
ENGL 434 Advanced English Syntax (4)
ANTH 124 Cultural Anthropology (4)
COMM 330 Intercultural Communication (3)
SPAR 264 Phonetics and Speech Science (3)

Students seeking the TESOL Certificate but not majoring in English will also take ENGL 144 Review of English Syntax (3) and ENGL 335 Survey of Linguistics (4).

Teaching Credential
Students desiring to enter a program of studies leading to a California teaching credential in English should take the English Education Emphasis. This program meets established standards of quality and effectiveness and has been approved by the State of California Commission on Teacher Credentialing. A brochure describing the new program and its requirements is available in the English department.

Those planning to teach English on the secondary level should consult with the Credential Analyst in the Department of Education 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 English
> A minimum of 30 hours (12 upper division) including the following:
ENGL 224 Literary Theory 4
ENGL 335 American Colonial and Romantic Periods 4
ENGL 465 English Medieval and Renaissance 4
ENGL 336 American Realism and Naturalism 4

ENGL 357 American Modernism 4
ENGL 466 The Restoration & the Eighteenth Century 4
ENGL 467 The Romantic Age 4
ENGL 468 The Victorian Age in Britain 4
ENGL 469 The Modern Age in Britain 4
ENGL 470 Contemporary Literature 4

Minor in Writing
> A minimum of 30 hours (12 upper division) including the following:
ENGL 346 Creative Writing 12-20
ENGL 347 Literary Themes 2
ENGL 443 ESOL Curriculum Development and Classroom Management 4
ENGL 444 ESOL Testing 2

ENGL 356 American Realism and Naturalism 4
ENGL 445 Cultural & Psychological Learner Differences 2
ENGL 491 ESOL Teaching Practicum 2

English as a Second Language

Service course:
Not applicable toward a major or minor in this department

ENSL 100 1-2 A, W, S
English for Special Purposes
Practical language application for ESL and other international students. Customization in response to student needs and interests in the following areas: advanced ESL composition, academic skills, foundational general education, professional pronunciation, American culture and institutions, and understanding the Christian culture. May be repeated for credit under different subtitles.

ENGL 357 American Modernism 4
ENGL 466 The Restoration & the Eighteenth Century 4
ENGL 467 The Romantic Age 4
ENGL 468 The Victorian Age in Britain 4
ENGL 469 The Modern Age in Britain 4
ENGL 470 Contemporary Literature 4

English Service courses:
Not applicable toward a major or minor in this department

Course Placement
The Department of English places students according to ACT scores and reserves the right not to place a student without ACT scores.

International students with a score of at least 525 on the TOEFL will be placed in English by means of a placement test given by the department. Placement may be in either ENGL or ENSL courses. In either placement, students with language difficulties may need to take more than one English course each quarter, since College policy requires completion of ENGL 102 by the end of the sophomore year (see page 24).

ENSL 102 4 A, W, S
Developmental Reading
Emphasis is on reading for significant details, reading for the main idea, scanning, critical reading, rate flexibility, and vocabulary development.

ENGL 357 American Modernism 4
ENGL 466 The Restoration & the Eighteenth Century 4
ENGL 467 The Romantic Age 4
ENGL 468 The Victorian Age in Britain 4
ENGL 469 The Modern Age in Britain 4
ENGL 470 Contemporary Literature 4

ENGL 389 Junior Seminar 1
ENGL 490 Senior Seminar 2
Optional alternative to ENGL 389 and 490:
ENGL 494 Writing Internship (3)
Selections from the following:
ENGL 348 Literary Genres (4)
ENGL 349 Poetry (4)
ENGL 357 American Modernism (4)
ENGL 466 The Restoration & the Eighteenth Century (4)
ENGL 467 The Romantic Age (4)
ENGL 468 The Victorian Age in Britain (4)
ENGL 469 The Modern Age in Britain (4)
ENGL 470 Contemporary Literature (4)

English Developmental Language Skills
This course is designed for students who need to strengthen structural language skills in preparation for College English. Emphasis is on syntax, mechanics, and basic editing.

ENGL 100 Introduction to Composition
For students by national test scores, secondary-school grades, and diagnostic testing to need strengthening in their command of basic reading and writing skills. Emphasis on analytical reading, writing, and usage. Required of students who do not meet minimum standards for admission to ENGL 101.

ENGL 101-102 4-4 A-W, W-S, S
College English
An integrated course in composition and reading. ENGL 101 emphasizes critical reading 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. Course includes study of one full-length book in addition to other readings. 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. ENGL 101 or equivalent is prerequisite to ENGL 102.

ENGL 291 Great Books

Thematicaly organized courses in 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. May be repeated for credit under different subtitles. Prerequisites: ENGL 102 or equivalent; enrollment limited to juniors and seniors.

Current subtitles include the following:

Class and Gender

Global Perspectives**

Heroes and Scapegoats

Literature and Film**

Ventures in Science

Wit and Humor

LOWER-DIVISION COURSES:

ENGL 224

4 A

Literary Theory

Major literary theories of the twentieth century and their application to selected texts. Students begin developing a writing portfolio that is continued throughout the major and is presented during the Senior Seminar, ENGL 490.

ENGL 291

ENGL Tutoring Practicum

Methods in assisting English language learners one-on-one in listening, speaking, pronunciation, reading, vocabulary, grammar, writing and American customs.

ENGL 307

3 A

Composition Theory

Emphasizes 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. Odd years.

ENGL 330

4 W

Literature for Children

Offered each odd semester. (See also ECED 330.)

ENGL 337

4 S

TESOL Methodology

Overview of current methods of teaching English to Speakers of Other Languages. Concentrates on practical, innovative techniques that foster development of listening, speaking, pronunciation, grammar, reading, writing, and vocabulary.

ENGL 346

4 A, W, S

Creative Writing

(See also JOUR 346 and MDIA 346.)

ENGL 352

3 Theme Courses

Courses with an interdisciplinary focus, which may be repeated for credit under different subtitles, such as drama, poetry, and the novel. Each course includes representative works from the genre under study. (May not be available every year. See each year’s Class Schedule for current offerings.)

ENGL 355

4 A

American Colonial and Romantic Periods

A survey of American authors from colonial times through the romantic era, emphasizing historical context.

ENGL 356

4 S

American Realism and Naturalism

Selected authors from American realists and naturalists. Even years.

ENGL 357

4 W

American Modernism

Selected second century American authors to 1950. Odd years.

ENGL 358

4 S

Introduction to Screenwriting* Nonfiction

Writing for Children**

ENGL 365

3 W

Seminar in American Slavery and Freedom

(See HIST 365.)

Even years.

ENGL 389

1 S

Junior Seminar

Techniques of literary research; choice of research topic for completion in ENGL 490 Senior Seminar.

ENGL 434

4 S

Advanced English Syntax

A review of traditional English grammar, with an introduction to transformational-generative techniques. Prerequisites: ENGL 134, 335, or permission of the instructor. Odd years.

ENGL 443

4 W

ESOL Curriculum Development and Classroom Management

Assessing and adapting current ESOL teaching materials that meet specific learner needs. Includes techniques in successful ESOL classroom management. Prerequisites: ENGL 336, 337. Odd years.

ENGL 444

2 W

ESOL Testing

Techniques for assessing all language skill areas. While general proficiency tests are examined, emphasis is on the development of classroom achievement tests. Prerequisites: ENGL 336, 337. Even years.

ENGL 445

2 W

Cultural and Psychological Learner Differences

Effects of language learning of customs, values, language aptitude, motivation, learner strategies, personality, and interaction between learner characteristics and types of instruction. Even years.

ENGL 465-470

These courses 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 466

4 W

The Enlightenment

Selected British writers from the Restoration and Neoclassical tradition. Odd years.

ENGL 467

4 S

The Romantic Age

Selected British writers of the first third of the nineteenth century. Odd years.

ENGL 468

4 S

The Victorian Age in Britain

Selected British writers from 1830 to 1880. Even years.

ENGL 469

4 S

The Modern Age in Britain

Selected British writers from 1880 to 1950. Even years.

ENGL 470

Contemporary Literature

Selected literature in English since 1950. Even years.
**English**

**ENGL 473  2-3 S**  
**Shakespeare in Performance**  
Provides 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.

**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 S**  
**Literature of the Bible**  
A study of the literary forms and themes in the Bible. Odd years.

**ENGL 485  4 S**  
**The Classical World**  
(See HIST 485.)

**ENGL 490  2 A**  
**Senior Seminar**  
Research and writing begun in ENGL 389 is completed during the fall quarter of the student’s senior year. Senior majors in English also complete and present the writing portfolios begun in ENGL 224 and continued throughout their major courses. In-Progress (“IP”) grading system.

**ENGL 491  2**  
**ESOL Teaching Practicum**  
Guided exposure to the ESL classroom through observation and supervised teaching. Prerequisites: ENGL 336 and 337.

**ENGL 493  1 A**  
**Senior Education Seminar**  
Senior majors with a concentration in English Education prepare an edited portfolio of papers written for their major courses.

**ENGL 494  3**  
**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. This course may substitute for ENGL 389 and 489 (Junior and Senior Seminars) in the Writing Emphasis.

**ENGL 495  1-3 A, W, S**  
**Independent Study**  
Maximum of three hours.

**DRMA 229  3 W, S**  
**Fundamentals of Dramatic Performance**  
(See also COMM 229.)  

**DRMA 239  3**  
**Techniques of Stage Production**  
Students will be responsible for directing, producing, and designing scenes for one-act plays, culminating in a final performance.

**DRMA 341  1 A, W, S**  
**Dramatic Arts Society**  
(See DRMA 141)

**Drama**

**Lower-division courses:**

**DRMA 141  1 A, W, S**  
**Dramatic Arts Society**  
Study and performance of dramatic texts. Students audition for parts and are assigned a variety of roles and functions, including technical.
Faculty
Charles Evans, chair; Michael Hellie, Elaine Neudeck, Robert Paulson
Departmental Office: 114 Pacific Auditorium; 965-6796

Degrees and Programs
Physical Education with Teacher Education
    Emphasis, B.S. ............................................................... 115
Exercise Science, B.S. ............................................................ 116
Teaching Credential ............................................................ 116

The Department of Exercise Science, Health and Nutrition 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 has the required cognate courses for the pre-med package 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.
➤ 68 hours of professional and theory courses (39 upper division):
➤ Required Core Courses:
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 182  Theory and Technique of Gymnastics  2
ESTH 183  Theory and Technique of Track and Field  2
ESTH 186  Theory and Technique of Football  2
ESTH 187  Theory and Technique of Volleyball  2
ESTH 188  Theory and Technique of Basketball  2
ESTH 189  Theory and Technique of Softball  2
ESTH 271-272-  Theory and Technique of Officiating  2-2-1
ESTH 287  Theory and Technique of Individual Sports  2
ESAC 365  Outdoor Experience  3
ESTH 371  Kinesiology  3
ESTH 372  Physiology of Exercise  3
ESTH 373  Corrective Physical Education  3
ESTH 374  Motor Learning  3
ESTH 381  Theory and Technique of Racquet Sports  2
ESTH 384  Theory and Technique of Rhythmic Activities  2
ESTH 470  Management of Physical Education Programs  3
ESTH 471  Evaluation in Physical Education  3
ESTH 476  Physical Education for Children  3
ESTH 461  Coaching I  2
ESTH 461L  Coaching  1
ESTH 483  Theory and Technique of Weight Training and Developmental Physical Education  2
ESTH 490  Ethics in Physical Education  2
A minimum of 97 hours of professional and theory courses

Required Cognate Courses:
- CHEM 371
- PHYS 111
- PHYS 112
- PHYS 113
- CHEM 111
- CHEM 112
- CHEM 113
- CHEM 371

Students majoring in physical education are expected to choose a minor in consultation with their major professor.

Major in Exercise Science, B.S.
- A minimum of 97 hours of professional and theory courses (40-42 upper division) including the following:
  - ESTH 166: Historical Foundations of Physical Education
  - ESTH 170: Care and Prevention of Athletic Injuries
  - ESTH 381: Basic Movement
  - ESTH 265: Theory and Technique of Aquatic Fitness
  - ESTH 371: Kinesiology
  - ESTH 372: Physiology of Exercise
  - ESTH 373: Corrective Physical Education
  - ESTH 374: Motor Learning
  - ESTH 483: Theory and Technique of Weight Training
  - ESAC 100: Lifeguard Training
  - BIO 101: Human Anatomy
  - BIO 102: Human Physiology
  - HLED 166: Health Education

Minor in Physical Education
- A minimum of 30 hours (12 upper division) including the following:
  - ESTH 166: Historical Foundations of Physical Education
  - ESTH 170: First Aid and Personal Safety/CPR
  - ESTH 470: Management of Physical Education Programs
  - ESTH 471: Evaluation in Physical Education
  - ESTH: Theory and Technique courses chosen in consultation with ESHN department adviser

Teaching Credential
- The State of California Commission on Teacher Credentialing mandates that all teacher-education programs in Physical Education meet established standards of quality and effectiveness. The Department Exercise Science, Health and Nutrition maintains its physical education program for the secondary credential in harmony with the mandated standards.
- Students are invited to discuss the requirements for a teaching credential with the Teacher-Education Adviser in the department. Those who plan to teach on the secondary level should consult the Credential Analyst in the Department of Education and should become acquainted with specific requirements outlined in the Education section of this catalog.

Health
- HLED 162: Fitness for Life
  - An introduction to the philosophy of health, aimed at lasting nutritional and physical conditioning patterns that promote 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.

Noncredit Courses:
- HLED 166: Health Education
- ESTH 166: Historical Foundations of Physical Education
- ESTH 170: First Aid and Personal Safety/CPR
- ESTH 470: Management of Physical Education Programs
- ESTH 471: Evaluation in Physical Education
- ESTH: Theory and Technique courses chosen in consultation with ESHN department adviser

Aerobics
- ESTAC 101A: Jogging
- ESTAC 103A: Physical Fitness
- ESTAC 105A: Fitness for Women
- ESTAC 107A: Swim and Stay Fit
- ESTAC 109A: Hydro-Aerobics

Noncredit Work Activity
- Supervised vigorous outdoor work such as woodcutting, rock hauling, etc. Satisfactory completion satisfies one quarter of the general-education activity requirement.

Aerobics
- ESTAC 155: Elementary Swimming
- ESTAC 358: Intermediate Swimming
- ESTAC 360: Advanced Swimming
- ESTAC 368: Water Safety Instructor

Individual and Dual Sports
- ESTAC 362A: Road Racing

Lower-division courses:
- ESAC 304A: Cycling
- ESAC 305A: Intermediate Mountain Biking

Even years.
- ESAC 308A: Aerobics

Aquatics
- ESAC 458: Noncredit Work Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESTAC 171: Pickleball
- ESAC 133: Mountain Biking

ESAC 304A: Cycling
ESAC 305A: Intermediate Mountain Biking
Even years.
ESAC 308A: Aerobics
- AEQTC: Lower-division course:
- ESAC 155: Elementary Swimming
- ESAC 358: Intermediate Swimming
- ESAC 360: Advanced Swimming
- ESAC 368: Water Safety Instructor
- ESAC 370: Lifeguard Training
- ESAC 380: Hydromassage
- ESAC 390: Athletic Training
- ESAC 458: Noncredit Work Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 459: Noncredit Recreational Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 133: Mountain Biking
- ESAC 171: Pickleball

- ESAC 155: Elementary Swimming
- ESAC 358: Intermediate Swimming
- ESAC 360: Advanced Swimming
- ESAC 368: Water Safety Instructor
- ESAC 370: Lifeguard Training
- ESAC 380: Hydromassage
- ESAC 390: Athletic Training
- ESAC 458: Noncredit Work Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 459: Noncredit Recreational Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 133: Mountain Biking
- ESAC 171: Pickleball

- ESAC 155: Elementary Swimming
- ESAC 358: Intermediate Swimming
- ESAC 360: Advanced Swimming
- ESAC 368: Water Safety Instructor
- ESAC 370: Lifeguard Training
- ESAC 380: Hydromassage
- ESAC 390: Athletic Training
- ESAC 458: Noncredit Work Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 459: Noncredit Recreational Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 133: Mountain Biking
- ESAC 171: Pickleball

- ESAC 155: Elementary Swimming
- ESAC 358: Intermediate Swimming
- ESAC 360: Advanced Swimming
- ESAC 368: Water Safety Instructor
- ESAC 370: Lifeguard Training
- ESAC 380: Hydromassage
- ESAC 390: Athletic Training
- ESAC 458: Noncredit Work Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 459: Noncredit Recreational Activity
- Supervised independent participation in a variety of recreational activities arranged in consultation with the physical education faculty. Satisfactory completion satisfies one quarter of the general-education activity requirement.
- ESAC 133: Mountain Biking
- ESAC 171: Pickleball

- ESAC 155: Elementary Swimming
- ESAC 358: Intermediate Swimming
- ESAC 360: Advanced Swimming
- ESAC 368: Water Safety Instructor
- ESAC 370: Lifeguard Training
- ESAC 380: Hydromassage
- ESAC 390: Athletic Training
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- ESAC 459: Noncredit Recreational Activity
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- ESAC 133: Mountain Biking
- ESAC 171: Pickleball
ESAC 174  
**Elementary Badminton**  
1  
119

ESAC 176  
**Elementary Weight Training**  
1  
118

ESAC 178  
**Canoeing**  
1  
118

ESAC 180  
**Elementary Golf**  
1  
119

ESAC 190  
**Elementary Self-Defense Activities**  
1  
118

ESAC 192  
**Elementary Skiing**  
1  
119

ESAC 194  
**Elementary Tennis**  
1  
119

ESAC 196  
**Advanced Beginning Tennis**  
1  
118

ESAC 199  
**Elementary Tumbling**  
1  
118

**Exercise Science, Health & Nutrition**  
118

**Intermediate Tennis**  
1  
119

**Intermediate Weight Training**  
ESAC 376  
1  
119

**Intermediate Self-Defense Activities**  
ESAC 380  
1  
119

**Intermediate Tennis**  
ESAC 394  
1  
119

**Team Sports**  
1  
119

**Lower-division courses:**  
1  
119

**Elementary Basketball**  
ESAC 120  
1  
119

**Elementary Basketball-Men**  
ESAC 123  
1  
119

**Elementary Golf**  
ESAC 130  
1  
119

**Elementary Weight Training**  
ESAC 176  
1  
119

**Elementary Badminton**  
ESAC 174  
1  
119

**Elementary Weight Training**  
ESAC 176  
1  
119

**Elementary Personal Training**  
ESAC 180  
1  
119

**Elementary Self-Defense Activities**  
ESAC 180  
1  
119

**Canoeing**  
ESAC 178  
1  
119

**Elementary Weight Training**  
ESAC 176  
1  
119

**Elementary Badminton**  
ESAC 174  
1  
119

**Elementary Tennis**  
ESAC 192  
1  
119

**Elementary Weight Training**  
ESAC 176  
1  
119

**Elementary Badminton**  
ESAC 174  
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119

**Elementary Tennis**  
ESAC 192  
1  
119

**Elementary Tennis**  
ESAC 192  
1  
119

**Elementary Tumbling**  
ESAC 199  
1  
119

**Elementary Weight Training**  
ESAC 176  
1  
119

**Elementary Tennis**  
ESAC 192  
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119

**Elementary Tumbling**  
ESAC 199  
1  
119

**Elementary Weight Training**  
ESAC 176  
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119

**Elementary Tennis**  
ESAC 192  
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119

**Elementary Tumbling**  
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**Elementary Weight Training**  
ESAC 176  
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119

**Elementary Weight Training**  
ESAC 176  
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119

**Elementary Tennis**  
ESAC 192  
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119
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTH 381</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>Theory and Technique of Racquet Sports</td>
<td></td>
<td></td>
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<tr>
<td>Analysis of and practice in strokes and tactics; rules, history and skill progression for various levels of instruction. Odd years.</td>
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<tr>
<td>ESTH 384</td>
<td>2</td>
<td>W</td>
</tr>
<tr>
<td>Theory and Technique of Rhythmic Activities</td>
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</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
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<tr>
<td>ESTH 461</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Coaching I</td>
<td></td>
<td></td>
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<tr>
<td>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. Odd years.</td>
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<td></td>
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<tr>
<td>ESTH 461L</td>
<td>1</td>
<td></td>
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<tr>
<td>Coaching I Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESTH 467</td>
<td>1</td>
<td>W</td>
</tr>
<tr>
<td>CPR Instruction</td>
<td></td>
<td></td>
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<tr>
<td>Meets the American Red Cross requirements for Instructor of Cardiopulmonary Resuscitation. Odd years.</td>
<td></td>
<td></td>
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<tr>
<td>ESTH 470</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td>Management of Physical Education Programs</td>
<td></td>
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<tr>
<td>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.</td>
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<tr>
<td>ESTH 471</td>
<td>3</td>
<td>W</td>
</tr>
<tr>
<td>Evaluation in Physical Education</td>
<td></td>
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<tr>
<td>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.</td>
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<tr>
<td>ESTH 476</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td>Physical Education for Children</td>
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<tr>
<td>Activity interests of children and appropriate materials for different age levels; selection of materials and methods of presentation. Satisfies one quarter of the general-education activity requirement. Two lectures and one laboratory weekly.</td>
<td></td>
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</tr>
<tr>
<td>ESTH 483</td>
<td>2</td>
<td>S</td>
</tr>
<tr>
<td>Theory and Technique of Weight Training and Developmental Physical Education</td>
<td></td>
<td></td>
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<tr>
<td>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 373 or permission of instructor. Even years.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESTH 490</td>
<td>2</td>
<td>W</td>
</tr>
<tr>
<td>Ethics in Physical Education</td>
<td></td>
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</tr>
<tr>
<td>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.</td>
<td></td>
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</tr>
<tr>
<td>ESTH 495</td>
<td>1-3</td>
<td>A, W, S, Su</td>
</tr>
<tr>
<td>Independent Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open by permission of the department chair to advanced students with adequate background and experience. Maximum of three hours.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDNT 235</td>
<td>3</td>
<td>A, W, S</td>
</tr>
<tr>
<td>Nutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
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</tr>
</tbody>
</table>
Faculty
Eric Anderson, chair; Lorne Glaim, Paul McGraw, Amy Rosenthal
Departmental Office: 209 Irwin Hall; 965-6405

Degrees and Programs
History, B.A................................................................. 121
Social Studies, B.S. ..................................................... 121
Teaching Credential: Subject Matter Program in
Social Science.............................................................. 122

Students in the Department of History and Social Studies 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.

Major in History, B.A.
➤ A minimum of 50 hours (30 upper division) including the following:

Basic Courses:

HIST 101-102  A History of World Civilizations  4-4
HIST 134-135  History of the United States  4-4
(Majors planning to take the sequence
HIST 355, 356, 357, and 358 do not
register for HIST 134-135.)
HIST 290  Seminar in the Study of History  2
HIST 320  Christian History: To 1500  3
(or HIST 321 Christian History: 1500
to the Present)
HIST 490  Seminar in Philosophy of History  3
HIST 499  Senior Seminar  2-2

Additional selections from courses offered by the department.
• A minimum of eight hours in upper-division World history  8
• A minimum of eight hours in upper-division American history  8
• Courses in geography and political science may apply toward the major after consultation with and approval by a faculty adviser.

Major in Social Studies, B.S.
➤ A minimum of 62 hours (27 upper division) including the following:

HIST 290  Seminar in the Study of History  2
HIST 490  Seminar in Philosophy of History  3
HIST 499  Senior Seminar  2-2

• Twenty-seven additional hours of history  27
• Six hours each from three other areas of social studies:
  (economics, geography, history, political science and sociology)  18
• Electives for those interested in social work, law, teaching, or medicine should be chosen in counsel with the major adviser.
Teaching Credential; Subject Matter Program in Social Science

The program leading to the teacher education credential in Social Science, which follows, satisfies the standards mandated by the Department of Education, State of California. The program includes a basic core of at least 53 quarter hours of course work in history and social science subjects that are commonly taught in California public schools (history and geography of the world, the United States and California; government, economics; and the behavioral sciences), and at least 34 additional quarter hours to provide breadth and perspective, for a minimum of 87 hours. Students completing the program will also have met the requirements for the B.S. degree in Social Studies offered by the department.

Subject-Matter Program in Social Science

➤ Required core courses: a minimum of 53 quarter hours:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 261</td>
<td>Principles of Economics - Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 301</td>
<td>World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 327</td>
<td>Geography of the Americas</td>
<td>3</td>
</tr>
<tr>
<td>HIST 101-102</td>
<td>A History of World Civilizations</td>
<td>4-4</td>
</tr>
<tr>
<td>HIST 134-135</td>
<td>History of the United States</td>
<td>4-4</td>
</tr>
<tr>
<td>HIST 290</td>
<td>Seminar in the Study of History</td>
<td>2</td>
</tr>
<tr>
<td>HIST 337</td>
<td>History of California</td>
<td>3</td>
</tr>
<tr>
<td>HIST 490</td>
<td>Seminar in the Philosophy of History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 499</td>
<td>Seminar in the Study of History</td>
<td>3</td>
</tr>
</tbody>
</table>

➤ Additional selections from courses offered by the Department.

Additional Requirements for the Subject Matter Program in Social Science:

In addition to the specific courses that meet the requirements mandated by the State of California for single subject-matter programs in Social Science, the teacher-education program in Social Science includes teaching experience and the development of a portfolio.

While the first two years of the program each student must complete EDUC 101 Introduction to Teaching. Throughout the course of study each student under departmental supervision develops a portfolio demonstrating his or her knowledge and work in social science. The portfolio includes a research essay from HIST 290 Seminar in the Study of History, a critical essay from HIST 490 Seminar in the Philosophy of History; a research paper from HIST 499 Seminar in History; a project from GEOG 301 World Regional Geography; and other selected work.

Minor in History

➤ A minimum of 30 hours (12 upper division) including the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>HIST 101-102</td>
<td>A History of World Civilizations</td>
<td>4-4</td>
</tr>
<tr>
<td>HIST 134-135</td>
<td>History of the United States</td>
<td>4-4</td>
</tr>
<tr>
<td>HIST 290</td>
<td>Seminar in the Study of History</td>
<td>2</td>
</tr>
<tr>
<td>HIST 490</td>
<td>Seminar in Philosophy of History</td>
<td>3</td>
</tr>
</tbody>
</table>

Economics

(See Business Administration and Economics for course descriptions.)

Geography

Upper-division courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 301</td>
<td>World Regional Geography</td>
<td>3 W</td>
</tr>
</tbody>
</table>

History

Lower-division courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 101-102</td>
<td>A History of World Civilizations</td>
<td>4-4 A-W, W-S</td>
</tr>
</tbody>
</table>

History and Social Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 290</td>
<td>Seminar in the Study of History</td>
<td>2 A</td>
</tr>
</tbody>
</table>

History Since 1914

The contemporary world with Europe as the focal point. Problems of ideology and power politics in relation to the two world wars, as well as efforts at international organization and the impact of the Cold War. Even years.

History of California

An introduction to geographic, economic, social, and historical factors which have contributed to the development of California. Even years.

Adventist History and the Ministry of Ellen G. White

An interdisciplinary course covering theological and historical issues important to an understanding of the Advent Movement and the ministry of Ellen G. White. Special treatment of an adequate hermeneutic for the writings of Ellen G. White. Meets the requirement in Prophetic Guidance and Denominational History for SDA teaching credentials.

Colonial America

A survey of 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. Even years.

The New Nation: 1763-1845

A survey of the formative period of American national identity between 1763 and 1845. Includes intensive study of the creation and development of the U.S. Constitution. Odd years.
**History and Social Studies**

**HIST 357  4 A**  Division and Reunion: 1845-1917
The basic issues of the nature of the Union and of slavery, the immediate and permanent effects of the Reconstruction on America’s society and government, industrialization, and the close of the frontier. Even years.

**HIST 358**  4 S  America Since 1917
A study of the rapid changes in American society, economy, and politics in the modern era, emphasizing the nation’s emergence as a world power. Odd years.

**HIST 364**  4 A  Modern Asia
A survey of historical, political, social, and cultural developments, emphasizing the nineteenth and twentieth centuries and the rise and decline of European imperialism. Odd years.

**HIST 365**  3 W  Seminar in American Slavery and Freedom
(See also ENGL 363.)
A cultural and political study of African-Americans in the history of the United States. Primary texts, including novels, essays, poetry, and biography, are used to examine the impact of slavery, emancipation, and segregation upon American democracy. Even years.

**HIST 366**  4 S  Modern Latin America
A history of Latin America since the early nineteenth century. Emphasis on cultural, political, and economic trends. Odd years.

**HIST 390  3 S**  History and Philosophy of Science
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. Meets in part the college-level Science/Mathematics general-education requirement and is one of the electives of the Honors Program. Prerequisites: PHYS 105 or CHEM 105, or equivalent, and PHIL 103 or permission of the instructor. Even years.

**HIST 420**  4 S  Renaissance and Reformation Europe
An outline of the major periods and important events in the history of the period from 1300 to 1600. Odd years.

**HIST 423**  4 W  Medieval Europe
The vital period from 300 to 1500 saw the creation of Europe. The priorities and characteristics of the civilization were determined in the emergence of a multi-faceted medieval society, a discrete historical entity, and ancestor of the modern world. Even years.

**HIST 425**  4 W  Reason and Revolution
European history 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. Even years.

**HIST 434**  4 S  The History of Modern Russia
A survey of Russian political, social, and intellectual development in the nineteenth and twentieth centuries. Odd years.

**HIST 440**  4 S  Religion in American Culture
A survey of American religious history and its impact on American culture. Emphasis on how religious belief and practice have influenced and been influenced by the development of American identity. Odd years.

**HIST 445**  4 A  Modern Britain
A survey of the political, social, and economic history of Britain in the nineteenth and twentieth centuries. Treats such major themes of the period as imperialism, the Irish question, the reform of parliamentary government, and the secularization of Britain. Even years.

**HIST 485**  4 S  The Classical World
(See also ENGL 485.)
Ancient Greece and Rome studied through primary texts, including Greek and Roman epics, dramas, histories, and philosophical works. Even years.

**HIST 490**  3 W  Seminar in the Philosophy of History
A survey of various approaches to interpreting history and social studies. Designed to assist in the development of a Christian philosophy of history. Required for departmental majors. Two hours of credit may be applied toward the general-education requirement in religion. Odd years.

**HIST 495**  1-3 A, W, S
Independent Study
An individual research course open by permission of the department chair to advanced students with an adequate background. Maximum of three hours.

Upper-division courses:

**PLSC 328**  3 S  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 country’s world view and the realities of policy-making. May be repeated for credit when a new issue is studied. Even years.

**PLSC 333**  3 W  History of Political Thought I
A study of selected ancient and medieval political thinkers. Prerequisite: PLSC 274. Odd years.

**PLSC 335**  3 S  History of Political Thought II
A study of the political philosophy of selected modern political thinkers. Prerequisite: PLSC 274. Odd years.

**PLSC 344**  3 W  Modern Comparative Government
The theory and function of typical governments, with special attention to their effects upon their citizens and the relative success with which they meet the needs of their societies. Even years.

Sociology

(See Behavioral Science, Sociology area, for course descriptions.)

**PLSC 444**  4 A  Constitutional Development of England
The growth of British institutions from Roman times to the present, with special emphasis on the development of parliamen-tary and legal systems. Odd years.

**PLSC 485**  3 A  Foreign Relations of the United States
A study in depth of episodes selected from the history of American foreign relations to illustrate the development of U.S. foreign policy. Odd years.

**PLSC 495**  1-3 A, W, S
Independent Study
An individual research course open only by permission of the department chair to advanced students with an adequate background. Maximum of three hours.
Faculty
Lloyd Best, chair; Roy Benton, George Hilton, Richard Rockwell, Steve Waters
Departmental Office: 238 Chan Shun Hall; 965-6590

Degrees and Programs
Actuarial Certification .......................................................... 127
Teaching Credential ............................................................ 127
Mathematics, B.S. ............................................................... 128

Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth. Modern mathematics is a creative counterpoint of computation and deduction, rooted in data while unfolding in abstraction.

The Department of Mathematics provides courses for future mathematicians, teacher education, general education, and programs in other departments. A common goal of each course is that each student, through mathematical reasoning, will solve problems with confidence.

Students majoring in mathematics will have experience with mathematical modes of thought which include modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. They will be prepared to solve mathematical problems, analyze abstract arguments, synthesize and write careful proofs, and apply mathematical reasoning to other settings.

Actuarial Certification
Students interested in passing the examinations for actuarial certification should confer with departmental faculty. The following courses are recommended: MATH 131-132-133, 222, 265, 267, 322, 331-332, 371-372, and INFS 470.

Teaching Credential
The State of California Commission on Teacher Credentialing mandates that all teacher-education programs in mathematics meet newly established standards of quality and effectiveness. The Mathematics department has received approval for its revised teacher-education program in mathematics. Students desiring to enter a program of studies leading to a California teaching credential in mathematics should take the Mathematics Education Emphasis. Students are invited to discuss the requirements for a teaching credential with the Teacher Education Adviser in the Mathematics department. A brochure describing the program and its requirements is available upon request.

Students who plan to teach on the secondary level should consult with the Credential Analyst in the Department of Education 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.
Required Cognate Courses:

A minimum of 60 hours (30 upper division) in mathematics and related electives including the following:

- MATH 131-132-133 Calculus I-II-III 4-4-4
- MATH 222 Introduction to Statistics 4
- MATH 265 Elementary Linear Algebra 4
- MATH 269 Elementary Differential Equations 4
- MATH 275 Logic and Sets 4
- MATH 331 Probability and Statistical Theory I 3
- MATH 351 Introduction to Abstract Algebra I 3
- MATH 390 Seminar 1
- MATH 421 Real Elementary Analysis I 3
- MATH 490 Senior Seminar

Elective hours may be selected from mathematics courses and upper division computer science courses. In addition, hours exceeding the minimum cognate requirement (below) may be applied to the degree requirement of the major.

Required Cognate Courses:

CPTR 115 Introduction to Computer Programming 4

A minimum of 4 hours from the following courses, which use mathematical methods in other disciplines:

- BIOL 354 Genetics (4)
- BIOL 396 Seminar (may be repeated) (5)
- CHEM 351-352 General Chemistry for Life Sciences (3-3)
- CHEM 396 Seminar (may be repeated) (5)
- CHEM 451-452-453 Physical Chemistry (3-3-3)
- ENGR 211-212-213 Engineering Mechanics (3-3-3)
- FIN 341 Finance (5)
- INPS 4/70 Management (4)
- MKTG 371 Marketing Research (3)
- PHYS 211-212-213 Physics (4-4-4)
- PHYS 396 Seminar (may be repeated) (5)
- PSYC 322 Research Design (4)
- PSYC 323 Intro. to Experimental Psychology (4)

Emphasis Choose one:

1. Pure Mathematics Emphasis

This emphasis provides a theoretical background for ad- vanced studies in mathematics and related areas, such as sta- tistics, computer science, and physics. Such advanced studies serve as preparation for graduate study as well as for work as a mathematician or as a mathematics teacher.

- MATH 267 Vector Calculus 4
- MATH 352 Introduction to Abstract Algebra II 3
- MATH 422 Elementary Real Analysis II 3

Two of the following courses:

MATH 332 Probability and Statistical Theory II (3)
MATH 425 Complex Variables (4)
MATH 465 Linear Algebra (4)

2. Applied Mathematics Emphasis

This emphasis is designed for mathematics-related careers in government, business, and industry. It provides approp- riate background for further study leading to specialties in actuarial science, operations research, and applied statistics. Highly recommended: Completion of a minor in Biology, Busi- ness Administration, Chemistry, Computer Science, Physics, or Psychology.

- MATH 322 Statistical Methods (3)
- MATH 332 Probability and Statistical Theory II (3)
- MATH 335 Discrete Methods (4)
- MATH 375 Numerical Analysis (4)
- MATH 385 Mathematical Modeling (4)

3. Mathematics Education Emphasis

This emphasis satisfies the mathematics course requirements for a California secondary teaching credential. (For additional credential requirements, refer to the Teacher Education Program as outlined in the Education section of this catalog).

- MATH 341-342 Geometries I-II 3-3
- MATH 354 Number Theory 3
- MATH 355 Discrete Methods 4
- MATH 385 Mathematical Modeling 4
- MATH 451 History of Mathematics 3

Minor in Mathematics

A minimum of 30 hours (6 upper division) including the following:

- MATH 131-132-133 Calculus 4-4-4
- MATH 265 Elementary Linear Algebra 4

The following elective courses are especially recommended for those planning on secondary level teaching:

- MATH 275 Logic and Sets (4)
- MATH 341-342 Geometries I-II 3-3
- MATH 351 Introduction to Abstract Algebra (3)

The following elective courses are especially recommended for those majoring in engineering or a physical science:

- MATH 267 Vector Calculus (4)
- MATH 269 Elementary Differential Equations (4)

Mathematics

Service Courses

(May not be used for major or minor in this department)

- MATH 019 Introductory Algebra
- MATH 021 Intermediate Algebra
- MATH 106 College Algebra

Mathematics

Service Courses

(May not be used for major or minor in this department)

- MATH 019 Introductory Algebra
- MATH 021 Intermediate Algebra
- MATH 106 College Algebra

College Algebra

Begins with a quick review of inter- mediate algebra, including rational expo- nents and radicals, complex numbers, and inequalities. Also includes polynomial and rational functions, binomial the- orem, composition and inverse of func- tions, exponential and logarithmic, systems of equations, arithmetic and geometric progressions. Topics may include further study of polynomials and/or linear programming. Prerequisite: Algebra II in high school or MATH 096.

Mathematics

Precalculus

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 treat- ment of the six trigonometric functions and their inverses. Prerequisite: MATH 106 or a strong background in algebra.

Foundations of School Mathematics

The logic and structure underlying school mathematics. Concepts, proce- dures, problem-solving and applications at concrete, pictorial, and abstract levels. MATH 211 includes problem-solving techniques, sets, logic and deductive rea- soning, the arithmetic of whole numbers, fractions, decimals, integers, rational and real numbers, ratio and proportion, and percent. Prerequisite: Algebra II in high school or MATH 096. MATH 212 includes geometry and measurement. Prerequisite: MATH 211.

Lower-division courses:

- MATH 131-132-133 Calculus 4-4-4
- MATH 211-212-213 Calculus I-II-III

Matrix Algebra

Prerequisite: MATH 131-132-133 Calculus I-II-III

Introduction to the tech- niques of differentiation and integration. Includes the chain rule, fundamental theorem and maximizing/minimizing applications. Graphing calculators and mathematical software tools are used extensively. Prerequisite: MATH 130 or a strong background in algebra and trigonometry.

MATH 132: Further skills in inte- gration and its applications. Includes general substitutions, integration by parts, applications to geometry and physics, infinite series, and Taylor expan- sions. Prerequisite: MATH 131.

MATH 133: Includes special curves, parametrizations, polar coordinates, solid analytic geometry, partial deriva- tives, and multiple integrals. Prerequisite: MATH 132.

MATH 222 Introduction to Statistics

Descriptive statistics, graphical meth- ods, basic concepts of probability, bi- nomial and normal probability distribu- tions, central limit theorem, hypothesis testing involving means, confidence intervals, introduction to correlation and regression, and chi-square testing. Ex- amples from a wide variety of disciplines, including business, the social sciences, and the life sciences, to prepare students to analyze data with varying backgrounds and interests to become intelligent consumers and users of statistics. Prerequisites: Algebra II in high school (C- or above) or MATH 096, ENGL 101.

MATH 265 Elementary Linear Algebra

Matrix algebra and determinants, applications to solving systems of linear equations, vector spaces, linear transfor- mations, eigenvalues, and eigenvectors. Prerequisite: MATH 131.

MATH 267 Vector Calculus

Functions of more than one variable including the general chain rule, line and surface integrals, divergence, curl, gra- dient, and Stokes’ theorem. Prerequisite: MATH 133.

MATH 131: Introduction to the tech- niques of differentiation and integration. Includes the chain rule, fundamental theorem and maximizing/minimizing applications. Graphing calculators and mathematical software tools are used extensively. Prerequisite: MATH 130 or a strong background in algebra and trigonometry.

MATH 132: Further skills in inte- gration and its applications. Includes general substitutions, integration by parts, applications to geometry and physics, infinite series, and Taylor expan- sions. Prerequisite: MATH 131.
MATH 260 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. Prerequisites: MATH 132, 265.

MATH 275 4 W
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 322 3 W, S, Su
Statistical Methods
Linear and multiple regression and correlation, analysis of variance, time series analysis and forecasting, and nonparametric methods. Prerequisites: MATH 222.

MATH 341-342 3-3 W-S
Geometry I-II
A two-quarter study of the development and history of Euclidean geometry, the discovery of non-Euclidean geometry and the subsequent reformulation of the foundations of geometry. MATH 341 reviews basic Euclidean geometry, introduces non-Euclidean geometries, and investigates geometric applications through problems and projects. MATH 342 focuses on the axiomatic method, logic, various axiom sets for Euclidean geometry, neutral geometry, history of the parallel postulate, discovery of non-Euclidean geometry, hyperbolic geometry, and philosophical implications. Prerequisites: MATH 275 or permission of the instructor. Even years.

MATH 351-352 3-3 A-W
Introduction to Abstract Algebra I-II
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 of MATH 351 that stresses applications. Topics studied include polynomials, elementary Galois theory, geometric constructions, algebraic geometry, lattices, and Boolean algebras. Prerequisite: MATH 275. Odd years.

MATH 354 3 S
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. Odd years.

MATH 355 4 A
Discrete Methods
Introduction to the theory and applications of combinatorics (counting methods) and graph theory. Topics included are permutations, combinations, generating functions, recurrence relations, principle of inclusion and exclusion, pigeonhole principle, Euler and Hamiltonian paths, chromatic number, trees, network flows, and optimization. Optimization algorithms include shortest distance, minimal spanning tree, maximal matching, and maximum flow. Prerequisite: MATH 275. Even 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. Some knowledge of computer programming would be helpful. Even years.

MATH 385 4 A
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. Prerequisite: MATH 269 or permission of the instructor. Odd 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. Prerequisites: upper-division standing. Graded S/F.

MATH 421-422 3-3 A-W
Elementary Real Analysis I-II
The fundamental definitions and theorems underlying single-variable calculus and related topics. MATH 421 introduces the completeness property, limits of sequences and functions, and continuity. MATH 422 is a continuation that covers derivatives, the Riemann integral, and infinite series. Prerequisites: MATH 132, 275. Even years.

MATH 425 4 S
Complex Variables
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 3 S
History of Mathematics
A survey of major developments in mathematics from antiquity to modern times. The course involves historical relevant problem sets, videos, class discussions, and presentations by students. Prerequisite: MATH 131. Odd years.

MATH 465 4 S
Linear Algebra
A study of linear algebra in much greater depth 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 S
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. May be repeated for credit. General course offered every other year. 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 A, W, S
Independent Study
Properly qualified students may, with the approval of the department chair, undertake research projects in one or more fields. Under supervision of departmental faculty, each student prepares and presents a paper on a topic of interest. Avaialble at the departmental office.

History of Mathematics
A survey of major developments in mathematics from antiquity to modern times. The course involves historical relevant problem sets, videos, class discussions, and presentations by students. Prerequisite: MATH 131. Odd years.

MATH 465 4 S
Linear Algebra
A study of linear algebra in much greater depth 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 S
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 Gödel's Theorem, Topology, Chaos and Fractals. May be repeated for credit. Generally offered every other year. 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 A, W, S
Independent Study
Properly qualified students may, with the approval of the department chair, undertake research projects in one or more fields. Under supervision of departmental faculty, each student prepares and presents a paper on a topic of interest. Available at the departmental office.
Faculty
Sylvia Rasi Gregorutti, chair; Charo Caballero-Chambers, Carolyn Snipes-Hoyt
Departmental Office: 212 Irwin Hall; 965-6574
Chair’s Office: 965-6510

Degrees and Programs
Spanish, B.A. .............................................................. 133
French, B.A................................................................. 134
Teaching Credential ..................................................... 134
Adventist Colleges Abroad.............................................. 134

The Department of Modern Languages offers instruction in French, German, Italian, and Spanish. Majors are available in Spanish and French, 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, Hong Kong, Italy, Spain, and Ukraine. Hebrew is taught at the Greek campus.

It will be necessary for a student majoring in French to spend one year in the Adventist Colleges Abroad Program in France and to take the courses prescribed by the major adviser.

A student majoring in Spanish will be asked to 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 adviser.

Major in Spanish, B.A.
➤ A minimum of 48 hours (30 upper division)

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 and a minor in any field.

A student may choose from the following courses, all of which apply toward the major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 132</td>
<td>Intensive Intermediate Spanish</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 133</td>
<td>Intensive Intermediate Spanish</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 151</td>
<td>Intermediate Spanish</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 152</td>
<td>Intermediate Spanish</td>
<td>4</td>
</tr>
<tr>
<td>(or SPAN 132 Intensive Intermed. Spanish)</td>
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<td></td>
</tr>
<tr>
<td>SPAN 153</td>
<td>Intermediate Spanish</td>
<td>4</td>
</tr>
<tr>
<td>(or SPAN 133 Intensive Intermed. Spanish)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 251</td>
<td>Spanish Conversation and Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 252</td>
<td>Spanish Conversation and Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 253</td>
<td>Spanish Conversation and Composition</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 367</td>
<td>Spanish and Latin-American Culture and Civilization</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 382</td>
<td>Applied Spanish Linguistics</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 385</td>
<td>Business Spanish</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 441</td>
<td>Readings in Spanish Literature</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 442</td>
<td>Readings in Latin-American Literature I</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 443</td>
<td>Readings in Latin-American Literature II</td>
<td>4</td>
</tr>
<tr>
<td>SPAN 495</td>
<td>Independent Study</td>
<td>1-6</td>
</tr>
<tr>
<td>SPAN 496</td>
<td>Directed Group Study</td>
<td>2-4</td>
</tr>
</tbody>
</table>

Upper-division electives taken at ACA Campus*

* See section entitled “Adventist Colleges Abroad (ACA)."
**Modern Languages**

**Recommended Cognate Courses:**
A full-year course in beginning French or German (12)

**ART 105** History of Western Art (4)

**HIST 366** Modern Latin America (4)

**MCGT 457** International Management (3)

**PLSC 485** Foreign Relations of the United States (3)

In Spain or Argentina a student may select a program from a variety of courses that apply toward the major in Spanish. See the current *Adventist Colleges Abroad Bulletin*, available in the Modern Languages department office, or online at www.nadadventist.org/aca for descriptions of these courses.

**Major in French, German, Italian, and Spanish**

**A minimum of 30 hours at the intermediate level or higher**

A student desiring a minor in German or Italian usually spends one year studying abroad. French and Spanish minors usually require one or 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. Those unsure of what course to enroll in may take a Spanish Language Placement test after consulting with the department faculty.

**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 and other aspects of the world. The following institutions are affiliated with ACA offering academic year programs of study:

**Argentina:** Universidad Adventista del Plata, Libertador San Martin: Spanish Language and Latin American Culture

**Austria:** Seminar Schloss Bogenhofen, Sr. Peter am Hart: German Language and Culture

**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, Segovia: Spanish Language and Culture

In addition to academic-year programs, ACA offers six-week summer terms in the following international study centers:

**Austria:** Seminar Schloss Bogenhofen, Sr. Peter am Hart: German

**Brazil:** Instituto Adventista de Ensino, São Paulo: Portuguese

**France:** Centre Universitaire et Pédagogique du Salève, Collonges-sous-Salève: French Language and Composition

**Greece:** La Sierra University Study Center, Athens: Intermediate New Testament Greek

**Hong Kong:** Hong Kong Adventist College, Chinese (Mandarin)

**Israel:** Jerusalem Center: Beginning Biblical Hebrew

**Italy:** Istituto Avventista Villa Aurora, Florence: Italian Language and Composition

**Spain:** Colegio Adventista de Sagunto, Sagunto: Spanish Language and Composition

**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. Those carefully planning their academic programs with PUC advisers 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 Language Department. Deadline for summer applications is April 1; for the academic year, May 1.

For further information:
Adventist Colleges Abroad 12501 Old Columbia Pike Silver Spring, MD 20904-6600 (301) 680-6444 FAX (301) 680-6461 E-mail: 104474.304@compuserve.com Website: www.nadadventist.org/aca

**Modern Languages**

**Recommended Cognate Courses:**
A full-year course in beginning French or German (12)

**ART 105** History of Western Art (4)

**HIST 366** Modern Latin America (4)

**MCGT 457** International Management (3)

**PLSC 485** Foreign Relations of the United States (3)

In Spain or Argentina a student may select a program from a variety of courses that apply toward the major in Spanish. See the current *Adventist Colleges Abroad Bulletin*, available in the Modern Languages department office, or online at www.nadadventist.org/aca for descriptions of these courses.

**Major in French, German, Italian, and Spanish**

**A minimum of 48 hours (30 in the upper division)**

Students majoring in French must complete residence at Angwin at least three upper-division French courses (twelve hours minimum). Selections are made from the following courses, all of which apply toward the major:

- **FREN 153** Intermediate French (4)
- **FREN 152** Intermediate French (4)
- **FREN 267** French Culture and Civilization (4)
- **FREN 381** Applied French Linguistics (4)
- **FREN 385** Business French (4)
- **FREN 441** Readings in 19th Century French Literature (4)
- **FREN 442** Readings in Contemporary French Literature (4)
- **FREN 443** Contemporary Francophone Literature (4)
- **FREN 496** Divisional Elective (1-4)
- **FREN 497** Upper-division electives at ACA Campus (1-6)

**Recommended Cognate Courses:**
A beginning full-year course in Spanish, German, or Italian (12)

**ART 105** History of Western Art (4)

**HIST 335** Europe Since 1914 (4)

**MCGT 457** International Management (3)

**PLSC 485** Foreign Relations of the United States (3)

In France or Germany a student may select a program from a variety of courses that apply toward the major in French. See the current *Adventist Colleges Abroad Bulletin*, available in the department office, or at www.nadadventist.org/aca for descriptions of these courses.

**Teaching Credential**
The State of California Commission on Teacher Credentialing mandates that all teacher education programs in languages other than English meet newly established standards of quality and effectiveness. The Modern Languages Department has received State approval of the new program. Students desiring a California secondary teaching credential are invited to discuss the teacher education program with the Credential Analyst in the Education department and with the Teacher Education Adviser in the Modern Languages Department.

Courses are taken at both PUC and the appropriate ACA campus in Spain, Argentina, or France (see “Adventist Colleges Abroad” below).

**Majors in French, German, Italian, and Spanish**

**A minimum of 30 hours at the intermediate level or higher**

A student desiring a minor in German or Italian usually spends one year studying abroad. French and Spanish minors usually require one or 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. Those unsure of what course to enroll in may take a Spanish Language Placement test after consulting with the department faculty.

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**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, Segovia: Spanish Language and Culture

In addition to academic-year programs, ACA offers six-week summer terms in the following international study centers:

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**Brazil:** Instituto Adventista de Ensino, São Paulo: Portuguese

**France:** Centre Universitaire et Pédagogique du Salève, Collonges-sous-Salève: French Language and Composition

**Greece:** La Sierra University Study Center, Athens: Intermediate New Testament Greek

**Hong Kong:** Hong Kong Adventist College, Chinese (Mandarin)

**Israel:** Jerusalem Center: Beginning Biblical Hebrew

**Italy:** Istituto Avventista Villa Aurora, Florence: Italian Language and Composition

**Spain:** Colegio Adventista de Sagunto, Sagunto: Spanish Language and Composition

**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. Those carefully planning their academic programs with PUC advisers 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 Language Department. Deadline for summer applications is April 1; for the academic year, May 1.

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French

Service Course: (Not applicable toward a major or minor in this department)

FREN 111-112-113 4-4-4 A-W-S
Beginning French
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. Individual laboratory work provides additional opportunity to practice and develop the communicative skills that can be expanded in subsequent study and use of the language. Introduction to selected elements of the cultures in countries where the language is used. (This course is not for students who have had two or more years of secondary French.)

Lower-division courses:

FREN 151-152-153 4-4-4 Intermediate French A-W-S
Designed to increase proficiency in speaking, listening, reading, and writing in 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. Prerequisites: FREN 111-112-113, its equivalent, or permission of the instructor.

Upper-division courses:

(Faught in French)

FREN 357 4 A
French Culture and Civilization
Contemporary French culture and civilization dealing with social, political, and economic trends. Even years.

FREN 381 4 A
Applied French Linguistics
Introduces principles of phonetics, phonology, morphology, and syntax. Special reference to foreign language teaching methodology and the particular problems of teaching French. Odd years.

FREN 385 4 W
Business French
Practice and vocabulary-building in French as used in business, commerce, finance, and economics. Even years.

FREN 441 4 W
Readings in 19th-Century French Literature
Readings in representative poets, novelists, and playwrights. Odd years.

FREN 442 4 S
Readings in Contemporary French Literature
Readings in representative poets, novelists, and playwrights. Odd years.

FREN 443 4 S
Contemporary Francophone Literature
Readings in representative French-speaking authors from around the world. Even years.

Spanish

Service Courses:

(FMay not be used for major or minor in this department)

SPAN 111-112-113 4-4-4 A-W-S
Beginning Spanish
See course description under French 111-112-113. (This course is not for students who have had two or more years of secondary Spanish.)

SPAN 131 5 A
Intensive Spanish Review
An intensive "bridge" course 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 high school Spanish.

Lower-division courses:

SPAN 132-133 5-5 W-S
Intensive Intermediate Spanish
Continuation of SPAN 131, providing intensive study of Intermediate Spanish (see course description under FREN 151-152-153). Prerequisite: Passing grade in SPAN 131 or equivalent.

SPAN 151-152-153 4-4-4 Intermediate Spanish A-W-S
See course description under FREN 151-152-153. Prerequisite: Two years of secondary Spanish or SPAN 111-112-113 or its equivalent.

Upper-division courses:

SPAN 251-252-253 3-3-3 A-W-S
Spanish Conversation and Composition
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 language requirement for general education.

Service Courses:

(Taught in Spanish)

SPAN 441 4 S
Readings in Latin-American Literature II
Readings in representative poets, novelists, and playwrights. Even years.

SPAN 495 1-6 A, W, S
Independent Study
Thirty-six hours of reading per hour of credit. A weekly conference with the instructor. Limited to French majors. Admission by permission of the instructor. Maximum of three hours in any quarter; may be repeated once for additional credit.
Faculty
Lynn Wheeler, chair; Genneviève Brown-Kibble, Del Case, Lois Case, Kenneth Narducci, LeRoy Peterson
Departmental Office: 102 Paulin Hall; 965-6201

Degrees and Programs:
Teaching Credential, B.Mus. in Music Education .................. 140
Music, B.Mus. in Performance .............................................. 141
Music, B.S ................................................................. 142
Music, A.S ................................................................. 142

The Department of Music offers a two-year Associate of Science degree and two four-year curricula leading to the 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
Students in the B.Mus. programs must take a functional keyboard facility examination the first quarter in residence. Unsatisfactory performance mandates enrollment in MUSP 121 each quarter in residence until the examination is passed. Students must pass this test before they may receive upper-division credit in their primary area of performance.

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 required 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.

Ensemble
All four-year degree majors are required to register for ensemble credit each quarter in residence except while doing student teaching. A.S. majors are required to register for a minimum of six quarters of ensembles.

Recital Attendance
All four-year majors are required to attend a minimum of six art music concerts each quarter in residence. A.S. majors are required to attend six concerts during at least six quarters.

Required Recitals
Performance emphasis majors present a half-hour recital (MUSP 390) during the junior year and a one-hour recital (MUSP 490) 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) 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, and with the approval of the music faculty.

All majors must periodically perform in general student recitals. For details, see the Music Department Student Handbook.

The Major Field Achievement Test in music is required of all seniors during their final quarter before graduation. In addition, all music majors are required to take examinations prepared by departmental faculty during their first and last quarters in residence.

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 Core Courses 35 hours required for all baccalaureate degrees in music: MUTH 121-122 - Theory I 3-3-3 MUTH 221-222 - Theory II 3-3-3 Bachelor of Music, B.Mus. Besides baccalaureate degree requirements listed elsewhere in this catalog, students working toward the Bachelor of Music degree take the required core courses listed above and meet the requirements of one of the two emphases listed below. 3. General Education Requirements The general-education requirements for the B.Mus. degree are the same as for other baccalaureate degrees except as indicated below. See the general-education section of this catalog. 4. Music Theory MUTH 331 Orchestration 3 MUTH 332 Counterpoint 3 MUTH 431 Form and Analysis 3 MUTH 432 Composition 3 Additional hours 4 Select four hours from the following list of techniques and pedagogy courses. Voice majors must take MUEP 477; piano majors must take MUEP 473-474; organ majors must take MUEP 475-476; and all other majors must take two hours of MUEP 495, studying the pedagogy and literature of their area of performance emphasis: MUEP 370 Handbell Techniques and Methods (1) MUEP 371 Trumpet Techniques and Methods (1) MUEP 372* Trombone Techniques and Methods (1) MUEP 373 Horn/Tuba Techniques and Methods (1) MUEP 374 Flute Techniques and Methods (1) MUEP 375* Single-Reed Techniques and Methods (1) MUEP 376 Double-Reed Techniques and Methods (1) MUEP 377* Percussion Techniques and Methods (1) MUEP 378 Violin/Viola Techniques and Methods (1) MUEP 379 Cello/Double Bass Techniques and Methods (1) MUEP 473-474 Piano Pedagogy 1-1 MUEP 475-476 Organ Pedagogy 1-1 MUEP 477* Voice Pedagogy (2) Music Ensemble One large ensemble for each quarter in residence. For piano majors, three of the twelve hours must be in MUNE 359, Keyboard Ensemble. When MUNE 359 is taken, the large ensemble is not required. Chamber music in the major area 3 5. Music Performance MUSP 164 and 364 Performance Studies: Major (maximum 18 hours lower division) Performance Studies: Secondary Area 6 MUSP 390 Junior Recital 1 MUSP 499 Senior Recital: Emphasis Major 3 MUSP 495 Independent Study in Performance (in the major area; keyboard majors take one hour of MUSP 495, two of MUHL 337) 6. Music Theory MUTH 331 Orchestration 3 MUTH 332 Counterpoint 3 MUTH 431 Form and Analysis 3 MUTH 432 Composition 3 7. Performance EMC 105 Introduction to Performance 3 Additional hours 4 Select four hours from the following list of techniques and pedagogy courses. Voice majors must take MUEP 477; piano majors must take MUEP 473-474; organ majors must take MUEP 475-476; and all other majors must take two hours of MUEP 495, studying the pedagogy and literature of their area of performance emphasis: MUEP 370 Handbell Techniques and Methods (1) MUEP 371 Trumpet Techniques and Methods (1) MUEP 372* Trombone Techniques and Methods (1) MUEP 373 Horn/Tuba Techniques and Methods (1) MUEP 374 Flute Techniques and Methods (1) MUEP 375* Single-Reed Techniques and Methods (1) MUEP 376 Double-Reed Techniques and Methods (1) MUEP 377 Percussion Techniques and Methods (1) MUEP 378 Violin/Viola Techniques and Methods (1) MUSP 379 Cello/Double Bass Techniques and Methods (1) MUSP 473-474 Piano Pedagogy 1-1 MUSP 475-476 Organ Pedagogy 1-1 MUSP 477 Voice Pedagogy (2) 8. Music Ensemble One large ensemble for each quarter in residence. For piano majors, three of the twelve hours must be in MUNE 359, Keyboard Ensemble. When MUNE 359 is taken, the large ensemble is not required. Chamber music in the major area 3 9. Music Performance MUSP 164 and 364 Performance Studies: Major (maximum 18 hours lower division) Performance Studies: Secondary Area 6 MUSP 390 Junior Recital 1 MUSP 499 Senior Recital: Emphasis Major 3 MUSP 495 Independent Study in Performance (in the major area; keyboard majors take one hour of MUSP 495, two of MUHL 337) 10. Music Theory MUTH 331 Orchestration 3 MUTH 332 Counterpoint 3 MUTH 431 Form and Analysis 3 MUTH 432 Composition 3
In addition to music courses, the Bachelor of Science degree with a music major has general-education requirements as listed in this catalog under General Education for the Baccalaureate Degree. MUHL 105 does not apply toward the degree requirements.

- **Required Courses**
  - The core courses for all music majors, listed above, and the following:
  - 1. Music Ensemble
    - One large ensemble for each quarter in residence
  - 2. Music Performance
    - MUSP 163 and MUSP 363 Performance Studies: Major and Minor
  - 3. Music Theory
    - One course chosen from MUTH 331, 332, 431, 432
  - 4. Music Electives
    - MUFL 489 Senior Recital
    - Additional hours

  Seven additional hours selected in consultation with the adviser and approved by the music faculty.

- **Associate Degree in Music, A.S.**
  - A minimum of 17 hours including the following:
    - 1. Required Core Courses
      - MUHL 131 Introduction to Vocal/Choral Literature
      - MUHL 132 Introduction to Keyboard Literature
      - MUHL 133 Introduction to Symphony/Chamber Literature
      - MUTH 121 Theory I and Labs
      - In addition to the core courses listed above, Associate of Science in Music majors must complete 22 hours in music selected from the following modules:

- **Piano Pedagogy Module**
  - 1. Music Education
    - MUED 338 Music for Children
    - MUED 349 Directed Teaching: Piano
    - MUED 473-474 Piano Pedagogy
  - 2. Music Ensemble
    - Six quarters of ensemble.
  - 3. Music Performance
    - MUSP 163 Performance Studies: Piano
  - 4. Electives
    - 8 hours elected in consultation with the adviser and approved by the Music faculty.

- **Departmental Requirements**
  - A minimum of 65 hours (21 upper division)
  - 6 Required cognate course:
    - MUED 473-474 Piano Pedagogy
  - A minimum of 37 hours including the following:
    - MUED 338 Music for Children
    - MUED 370 Handbell Techniques and Methods

- **Degree Requirements**
  - Seven additional hours selected in consultation with the adviser and approved by the music faculty.

- **Music Education**
  - Lower-division courses:
    - MUED 106 Issues in Church Music
      - Analysis of issues in church music. Acquaints students with traditional and contemporary worship practices. Odd years.
    - MUED 241 Basic Conducting
      - Foundation for the development of skill in the art of conducting various ensembles.
    - MUED 338 Music for Children
      - Music for children from infancy through lower elementary school grades, based on Kodály method. Emphasizes development of child's voice through solfege and authentic folk materials and covers teaching methods for singing, rhythmic activities and listening skills. Odd years.
    - MUED 338L Music for Children Lab
      - 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.

- **Musical Education**
  - MUED 342 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 Choral Conducting
    - A practical course in the 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 Directed Teaching: Piano
    - Lessons taught by students in studio or classroom. Supervised and evaluated. Usually taken in conjunction with MUED 473 and continued in the spring quarters.
  - MUED 370 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 Trumpet Techniques and Methods
    - Introduction to teaching and performing trumpet through the intermediate level. Performance techniques, pedagogical methods and materials, maintenance, and practical teaching experience. Odd years.
  - MUED 372 Trombone Techniques and Methods
    - Objectives similar to those of MUED 371. Odd years.
  - MUED 373 Horn/Trumpet Techniques and Methods
    - Objectives similar to those of MUED 371. Odd years.
  - MUED 374 Flute Techniques and Methods
    - Objectives similar to those of MUED 371. Even years.
  - MUED 375 Single-Reed Techniques and Methods
    - Objectives similar to those of MUED 371. Even years.
  - MUED 376 Double-Reed Techniques and Methods
    - Objectives similar to those of MUED 371. Even years.
  - MUED 377 Percussion Techniques and Methods
    - Objectives similar to those of MUED 371. Emphasis on snare drum, timpani, and mallets. Solo and ensemble playing. Even years.
  - MUED 378 Violin/Viola Techniques and Methods
    - Ability to play and teach violin and viola at the beginning and intermediate levels. Elementary individual and class methods of instruction and basic maintenance. Odd years.
  - MUED 379 Cello/Double Bass Techniques and Methods
    - Objectives similar to those of MUED 378. Even years.

- **Musician for Music Students**
  - MUED 106 Issues in Church Music
    - Objectives similar to those of MUED 338. Odd years.
  - MUED 241 Basic Conducting
    - Objectives similar to those of MUED 241. Even years.
  - MUED 338 Music for Children
    - Objectives similar to those of MUED 338. Odd years.
MUED 381 2 A
Music in Elementary and Secondary Schools I
Theories 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 and other challenges related to the elementary music classroom. Prerequisite: MUED 338. Even years.

MUED 382 2 W
Music in Elementary and Secondary Schools II
Evaluation of music education philosophies and their practical applications for designing and implementing a secondary school choral curriculum. Topics include recruitment, auditions, repertoire selection, and classroom management. Prerequisites: MUED 241 and 338. Even years.

MUED 383 2 S
Music in Elementary and Secondary Schools III
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 470, 480 2, 2 S
Music Workshops
During the summer session various workshops are offered in piano, choral music and strings.

MUED 473-474 1-1 A-W
Piano Pedagogy
The art of piano teaching, including materials and methods of instruction. Concurrent registration in MUED 349 recommended. Odd years.

MUED 475-476 1-1 W-S
Organ Pedagogy
The art of teaching organ at beginning and intermediate levels. Survey of materials and methods of instruction. Odd years.

MUED 477 2 S
Vocal Pedagogy
The study of principles and methods of vocal instruction in Western cultures. Even years.

MUED 480 1 A, W, S
Senior Project
Special project for B.S. majors and, in lieu of MUSP 489, for B.Mus. education majors in unusual circumstances. By permission of the music faculty and in consultation with the adviser and the department chair.

MUED 495 1-3 A, W, S
Independent Study
Advanced independent project in music education. Requires approval of the department chair. Three hours maximum.

Music Ensembles
The following satisfy the music major large-ensemble requirements: Bel Canto, Kanterei, Pro Musica, Orchestra, Symphony Wind Ensemble, and Keyboard Ensemble. Additional small ensembles are also offered. Unless indicated otherwise, each ensemble is available any quarter and is repeatable. Upper-division credit for juniors and seniors is determined by the student's proficiency and previous experience in college-level music.

Lower-division courses:

MUEN 141 1 A, W
Bel Canto
Study and performance of selected choral literature for women's voices. Performances include a major work each autumn with combined choirs and orchestra. Auditions held both quarters.

MUEN 142 Kanterei
Study and performance of selected choral literature for men's voices. Performances are mostly on campus and include a major work each autumn with combined choirs and orchestra. Auditions held both quarters.

MUEN 154 1 A, W, S
Pro Musica
A carefully balanced SATB choral ensemble that studies and performs a variety of challenging repertoire. Performances include off-campus tours during the winter and spring quarters. Auditions held at the beginning of autumn quarter. Corequisite: Bel Canto or Kanterei.

MUEN 155 1 A, 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. Members are selected by audition.

MUEN 156 1 A, W, S
Orchestra
Orchestral masterworks performed in quarterly concerts and other events. For advanced instrumentalists, both college students and community residents. Members are selected by audition.

MUEN 157 1 A, 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 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 1 A, W, S
Jazz Ensemble
Emphasis on the rehearsal and performance of big band jazz. Development of reading and improvisation skills. Participation by audition/permission of instructor.

MUEN 175 1 A, W, S
Flute Quartet
Normally limited to members of Symphonic Wind Ensemble. By audition.

MUEN 176 1 A, W, S
Saxophone Quartet
Normally limited to members of Symphonic Wind Ensemble. By audition.

MUEN 177 1 A, W, S
Trombone Choir
Rings level three music and above. Available by audition to students with previous ringing experience. Performs both on and off campus.

MUEN 178 1 A, W, S
Woodwind Ensemble
Normally limited to members of Symphonic Wind Ensemble. By audition.

MUEN 179 1 A, W, S
Brass Combine
Normally limited to members of Symphonic Wind Ensemble. By audition.

MUEN 180 1 A, W, S
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 181 1 A, W, S
Brass Ensemble
Normally limited to members of Symphonic Wind Ensemble. By audition.

MUEN 182 1 A, W, S
Trombone Choir
By audition.

MUEN 184 1 A, W, S
String Quartet
Normally limited to members of the Orchestra. By audition.

MUEN 186 1 A, W, S
Beginning Handbell Choir
Open to any student with music reading skills.

Upper-division courses:

MUEN 341 1 A, W
Bel Canto
(See description of MUEN 141.)

MUEN 342 1 A, S
Kanterei
(See description of MUEN 142.)

MUEN 344 1 A, W, S
Pro Musica
(See description of MUEN 144.)

MUEN 345 1 A, W, S
Symphonic Wind Ensemble
(See description of MUEN 155.)

MUEN 346 1 A, W, S
Orchestra
(See description of MUEN 156.)

MUEN 347 1 A, W, S
String and Piano Chamber Music
(See description of MUEN 157.)

MUEN 348 1 A, W, S
Keyboard Ensemble
(See description of MUEN 159.)

MUEN 350 1 A, W, S
Jazz Ensemble
(See description of MUEN 160.)

MUEN 354 1 A, W, S
Symphonic Wind Ensemble
(See description of MUEN 164.)

MUEN 355 1 A, W, S
Orchestra
(See description of MUEN 165.)

MUEN 356 1 A, W, S
String Quartet
(See description of MUEN 166.)

MUEN 357 1 A, W, S
Brass Ensemble
(See description of MUEN 167.)

MUEN 358 1 A, W, S
Advanced Handbell Choir
Rings level three music and above. Available by audition to students with previous ringing experience. Performs both on and off campus.
Upper-division courses:

**MUHL 331**
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 musicalocological methods. Prerequisite: MUTH 123.

**MUHL 332**
Music of the Classic and Romantic Eras
Music history of the Classic and Romantic Eras. See description of MUHL 331. Prerequisite: MUHL 331.

**MUHL 333**
Contemporary Music
Music history from the Post-Romantic to the present. See MUHL 331. Prerequisite: MUHL 331.

**MUHL 336**
Popular Music in America

**MUHL 337**
Keyboard Literature
The development of keyboard instruments; forms and literature pertaining to teaching and performance. Even years.

**MUHL 495**
Independent Study
Advanced, independent project in music history. Requires approval of the department chair. Three hours maximum.

Music Performance

(Each course is available any quarter and, except for recitals, is repeatable.)

Lower-division courses:

**MUSP 120-124**
Music Lessons: Class Instruction
Lessons for groups of four or more students in voice or instruments. Meets one clock hour per week. Not applicable to the principle performance area of a music major.

**MUSP 162**
Music Lessons: General
Elementary instruction in voice, harpsichord, organ, piano, guitar, and orchestra and band instruments. Not applicable to the principle performance area of music major.

**MUSP 163**
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.

**MUSP 164**
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.

**MUSP 165**
Performance Studies: Secondary Area
Private lessons for majors in secondary areas. Performance majors take 6 hours; music education majors, up to 6 hours by request. Available to students with upper-division status in the major performance area. Normally limited to one area and one hour credit per quarter. Selected in consultation with the major adviser.

**MUSP 390**
Junior Recital
Required of performance emphasis majors in the junior year. Minimum of 30 minutes.

**MUSP 489**
Senior Recital
Required of music-education emphasis and B.S. music majors, the final quarter of lessons culminating in this recital. Minimum of 60 minutes.

**MUSP 490**
Senior Recital: Emphasis Major
Required of performance emphasis majors, the final quarter of lessons culminating in this recital. Minimum of 60 minutes.

**MUSP 495**
Independent Study in Performance
Advanced, independent research project in solo and ensemble literature and pedagogy for the major instrument. Requires approval of department chair. Three hours maximum.

Music Theory

Lower-division courses:

**MUTH 101**
Elements of Music
Rudiments of music including notation, rhythm, melody, harmony, timbre, and form.

**MUTH 121-122-123**
Form and Analysis
Form and structure of music from plainchant to the present. Prerequisite: MUTH 121. Even years.

**MUTH 326**
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.

**MUTH 331**
Orchestration
Technical aspects and sound qualities of instruments. Arranging for a variety of instrumental groups. Prerequisite: MUTH 123. Odd years.

**MUTH 332**
Counterpoint
Basic contrapuntal principles as generally illustrated in music of various historical styles. Prerequisite: MUTH 121. Odd years.

**MUTH 421**
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. Singing, listening, and keyboard skills. Three classes and one laboratory per week.

**MUTH 422-423**
Theory II
Advanced study of musical parameters begun in Theory I. Movement toward more complex forms and textures. Singing, listening, and keyboard skills. Three classes and one laboratory per week.
Faculty
Nancy Tucker, chair; Nita Campbell, Linda Cochran, Kathryn Dillon, Lenora Follett, Cherie Goulard, Joan Hughson, Karen Lewis, Marilyn Parras, Shana Ruggenberg, Kathryn Schneider, Donna Stretter, Rita Van Horn, Joyce Wallace, Carol Williams, Debbie Winkle
Departmental Office: 116 Davidian Hall; 965-7262

Degrees and Programs*
Nursing, A.S. .............................................................. 149, 152
Nursing, B.S.N. .......................................................... 154, 155

The faculty of the Department of Nursing is committed to providing a broad, liberal and professional education to a diverse population of traditional and adult nursing 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 program are planned in harmony with the mission of the College and of the Seventh-day Adventist Church, which it represents.

The department offers both Associate of Science and Bachelor of Science in Nursing.** The generic AS-RN program is on the main campus in Angwin. LVN to RN programs are offered in Hanford; Travis Air Force Base, Fairfield; and at other selected sites. The senior year of the Baccalaureate program is on the White Memorial Medical Center campus in Los Angeles, the main campus in Angwin, or at other selected sites. Applicants are accepted into the A.S. and B.S.N. programs Autumn, Winter, and Spring quarters.

Persons considering nursing 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.

Associate of Science Degree in Nursing, A.S.

The Mission of the Associate of Science Program in Nursing is to prepare students to provide competent nursing care for patients 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 provision of the following to students:

- opportunities to develop a Christian philosophy of life that conveys tolerance of others and concern for them
- a curriculum based on scientific principles, current concepts of nursing, community health needs, and trends in nursing education.
- a curriculum that provides students the knowledge and competencies to meet successfully the established standards required for Registered Nurse licensure
- a foundation for upward mobility in nursing education
- experiences that stimulate students toward optimal personal and professional growth through lifelong learning
- an environment that fosters critical thinking and instills a desire for ongoing inquiry

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* Pacific Union College is a member of the National League for Nursing. Both the A.S. and the B.S.N. programs are accredited by the League’s Accrediting Commission. Questions and comments may be directed in writing to:
National League for Nursing Accrediting Commission
61 Broadway
New York NY 10006
By telephone the NLN can be reached at (212) 363-5555, Ext. 153.
** Nursing students in both the A.S. and B.S.N. programs must provide or arrange for their own transportation to and from clinical sites.
**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.

1. ENGL 101 College English (4)
2. BIOL 101 Human Anatomy (3) or BIOL 102 Human Physiology (5) (If there has been a lapse of more than five years since science courses were taken, the student may be evaluated to determine current proficiency.)
3. Secondary-school chemistry or physics or CHEM 101 or PHYS 105 with no grade lower than C. Both physics and chemistry are recommended.
4. Mathematics: A full year of Algebra II with a grade of C or better.
5. Admission is based upon ACT scores, college GPA, and other factors. All general-education and cognate courses required for the A.S. degree in Nursing must be completed with no grade lower than C.
6. Current certification in cardiopulmonary resuscitation for the professional rescuer.
7. Documentation certifying completion of a full physical examination within the past twelve months and indicating acceptable health. Documentation showing proof of currency must be provided for the following:
   a) Immunization for Rubella, or Rubella titer if immunization is not within ten years.
   b) Tuberculous skin test within the last twelve months or appropriate chest X-ray documentation (available at the PUC Health Service).
   c) Hepatitis B immunization series should be started upon acceptance into the program.
8. TEAS (Test of Essential Academic Skills). Applicants must pass the TEAS at the departmentally approved level.
9. An admissions interview with the Admissions Committee (or resident applicants) a personal reference. Recommendations written by relatives and those presented directly to the Nursing department by the applicants themselves are not acceptable.
10. Acceptable recommendation from a residence-hall dean, as appropriate. Nonresident students should provide a personal reference.
11. One professional reference.
12. Current malpractice insurance ($45).

**Admission Procedure for Nursing:**
1. File applications for admission to both the College and the Department of Nursing. The nursing program application fee is $20. (Note: R.N. 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 the department secretary for a copy of the Board of Registered Nursing Regulations Relating to Denial of Licensure.)
2. File application and all supporting documents for admission to the nursing program with the Department of Nursing. Applicants should file early; applications are processed in the order in which they are received.
3. Provide to both the Office of Enrollment Services and the Nursing department ACT (or SAT) scores and transcripts from high school or academy and each college or university attended.
4. Send a copy of both sides of a current cardiopulmonary resuscitation certification card.
5. Arrange to take the TEAS at the Counseling and Career Center.
6. Provide the Nursing department evidence of a physical examination completed within the last twelve months, including the required immunizations and chest X-ray or T.B. skin-test results.
7. Provide one professional reference and (for resident students) a reference from a residence-hall dean; (for non-resident students) a personal reference. Recommendations written by relatives and those presented directly to the Nursing department by the applicants themselves are not acceptable.
8. After the applicant has filed all the pertinent documents (see items 1-7) with the appropriate department, has completed the TEAS, and all grades have been received for prerequisite work, the application will be processed and the student notified of the action taken.

**Readmission Procedure for Nursing:**
Students who withdraw from the program in good academic standing may apply for readmission.
1. Reapply for admission to the College, if necessary.
2. Present completed reapplication form to the Nursing Admissions Committee. (Forms are available at the Nursing department office.)
3. Provide evidence that any identified problems have been corrected.
4. Provide one professional reference.
5. Those 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.
6. Students requesting readmission after an absence of more than three years will be required to validate their current knowledge for each nursing course they have completed.

The following policies apply to the above category of reapplicants:
1. Knowledge validation results determine appropriate course-level placement.
2. A per-hour fee is charged for knowledge validation testing.
3. Students must meet all other "Requirements for Continuation in and Graduation from the Associate Degree Program in Nursing."
4. Readmission is on a space-available basis.
5. Students who withdraw from the nursing program because of failing performance, or who fail a clinical nursing course, may apply for readmission as follows:
   a) Reapply for admission to the College, if necessary.
   b) Submit completed reapplication form to the Nursing Admissions Committee. (Forms are available at the Nursing department office.)
   c) Provide evidence that any identified problems have been corrected.
   d) Provide one professional reference.
   e) Those 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.
6. Students requesting readmission after an absence of more than three years will be required to validate their current knowledge for each nursing course they have completed.

The following policies apply to students reapplying after failing academic performance:
1. Knowledge validation results determine appropriate course-level placement.
2. A per-hour fee is charged for knowledge-validation testing.
3. Students will be limited to one clinical nursing course per term.
4. Those 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.
5. Students requesting readmission after an absence of more than three years will be required to validate their current knowledge for each nursing course they have completed.

4. Before progressing in the nursing course sequence, the student must repeat any clinical nursing course in which a grade lower than C (2.0) was earned.
5. Students must show evidence for potential success by having corrected the deficiencies.
6. Students must meet all other "Requirements for Continuation in and Graduation from the Associate Degree Program in Nursing."
7. Readmission is on a space-available basis.

**Admissions Committee Procedure on Reapplications:**
1. After all grades for the preceding quarter are recorded in the Records Office, the committee will review reapplication forms. This review will include a comprehensive study of student performance and evidence that problem areas have been addressed.
2. Notification of committee decisions will be in writing.

**Transfer, Challenge, and Waiver Options:**
Applicants wishing to transfer, challenge, or waive must meet the same admission or readmission requirements as generic students. In addition to applying for admission to the College, applicants are required to supply recommendations, transcripts and other required documents directly to the Department of Nursing.

For their previous educational experience, L.V.N.'s or transfer students are given credit toward qualifying to sit for licensure examinations. They may establish additional academic credit for acquired knowledge through challenge examinations or other methods of evaluation. The options available for L.V.N.'s to qualify to take the California licensure examination for registered nurses are as follows:

- Full A.S. option: Refer to page 172 for required courses.
- The Advanced-Placement option: L.V.N.'s desiring the A.S. degree who have a current L.V.N. license are given credit for first-year nursing courses. NURS 211, 212, 221, 222, 252, 253, 262, and 263 are the required nursing courses.
- The 30-semester/45-quarter unit option: This option does not earn a degree in nursing from Pacific Union College. Required courses are MCR 134, BDEL 115, 221, 222, 224, and 262 only. Applicants desiring this option are not subject to any evaluative processes for admission. An R.N. license obtained through this nondegree option is not recognized in some other states. Those electing this option should know that they may encounter some difficulty.

- **Speciﬁc information and materials about transfer, challenge, waiver, and the 30-semester/45-quarter unit option are available in the Department of Nursing and will be sent upon request.**
Each nursing course**:

1. Satisfaction of the requirements for the Associate of Science Degree Program in Nursing:
2. Acceptable physical and mental health.
3. Compliance with all policies and procedures in the Nursing Department Student Handbook.
4. No more than one nursing course repeat. Non-clinical nursing courses (NURS 111, 154, 211, 232) may be repeated to attain a minimum grade of C.
5. Maintenance of current certification in cardiopulmonary resuscitation by the professional. (The certification must be presented at registration every quarter.)
7. L.V.N.-to-R.N. Program: L.V.N.s may enter either the traditional College program on campus or the satellite program on campus at specified intervals that allow working L.V.N.s to meet their employment commitments. Associate degree L.V.N. applicants must have had at least one year of clinical experience.
8. Compliance with all transfer policies and procedures.

Associate of Science Degree in Nursing, A.S.:* **

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 111</td>
<td>Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>NURS 121</td>
<td>Nursing I</td>
<td>7</td>
</tr>
<tr>
<td>NURS 124</td>
<td>Nursing II</td>
<td>6</td>
</tr>
<tr>
<td>NURS 125</td>
<td>Nursing III</td>
<td>7</td>
</tr>
<tr>
<td>NURS 154</td>
<td>Mental Health Nursing I</td>
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<tr>
<td>NURS 211</td>
<td>Pharmacology III</td>
<td>1</td>
</tr>
<tr>
<td>NURS 212</td>
<td>Pharmacology II</td>
<td>1</td>
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<tr>
<td>NURS 221</td>
<td>Nursing IV</td>
<td>7</td>
</tr>
<tr>
<td>NURS 222</td>
<td>Nursing V</td>
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</tr>
<tr>
<td>NURS 252</td>
<td>Maternal-Newborn Nursing</td>
<td>5</td>
</tr>
<tr>
<td>NURS 253</td>
<td>Pediatric Nursing</td>
<td>5</td>
</tr>
<tr>
<td>NURS 254</td>
<td>Mental Health Nursing II</td>
<td>5</td>
</tr>
<tr>
<td>NURS 262</td>
<td>Nursing VI</td>
<td>8</td>
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<tr>
<td>NURS 111</td>
<td>Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>NURS 154</td>
<td>Mental Health Nursing I</td>
<td>1</td>
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<tr>
<td>NURS 211</td>
<td>Pharmacology III</td>
<td>1</td>
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<tr>
<td>NURS 212</td>
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<td>NURS 221</td>
<td>Nursing IV</td>
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<tr>
<td>NURS 222</td>
<td>Nursing V</td>
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<tr>
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<td>Maternal-Newborn Nursing</td>
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<td>NURS 254</td>
<td>Mental Health Nursing II</td>
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<tr>
<td>NURS 262</td>
<td>Nursing VI</td>
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</tr>
<tr>
<td>NURS 111</td>
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<tr>
<td>NURS 212</td>
<td>Pharmacology II</td>
<td>1</td>
</tr>
</tbody>
</table>

Nursing

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.

Lower-division courses:

Course Evaluation: Each nursing course is composed of both theory and clinical hours. Passing the course and progressing to the next nursing course require 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 Nursing Department Student Handbook.

NURS 111 Pharmacology I 1
NURS 121 Nursing I 7
NURS 124 Nursing II 6
NURS 125 Nursing III 7
NURS 154 Mental Health Nursing I 1
NURS 211 Pharmacology III 1
NURS 221 Nursing IV 7
NURS 222 Nursing V 5
NURS 252 Maternal-Newborn Nursing 5
NURS 253 Pediatric Nursing 5
NURS 254 Mental Health Nursing II 5
NURS 262 Nursing VI 8
NURS 111 Pharmacology I 1
NURS 154 Mental Health Nursing I 1
NURS 211 Pharmacology III 1
NURS 212 Pharmacology II 1
NURS 221 Nursing IV 7
NURS 222 Nursing V 5
NURS 252 Maternal-Newborn Nursing 5
NURS 253 Pediatric Nursing 5
NURS 254 Mental Health Nursing II 5
NURS 262 Nursing VI 8
NURS 111 Pharmacology I 1
NURS 154 Mental Health Nursing I 1
NURS 211 Pharmacology III 1
NURS 212 Pharmacology II 1
NURS 221 Nursing IV 7
NURS 222 Nursing V 5
NURS 252 Maternal-Newborn Nursing 5
NURS 253 Pediatric Nursing 5
NURS 254 Mental Health Nursing II 5
NURS 262 Nursing VI 8
NURS 111 Pharmacology I 1
NURS 154 Mental Health Nursing I 1
NURS 211 Pharmacology III 1
NURS 212 Pharmacology II 1
NURS 221 Nursing IV 7
NURS 222 Nursing V 5
NURS 252 Maternal-Newborn Nursing 5
NURS 253 Pediatric Nursing 5
NURS 254 Mental Health Nursing II 5
NURS 262 Nursing VI 8

NURS 111 Pharmacology I 1
NURS 121 Nursing I 7
NURS 154 Mental Health Nursing I 1
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NURS 212 Pharmacology II 1
NURS 221 Nursing IV 5
NURS 222 Nursing V 5
NURS 252 Maternal-Newborn Nursing 5
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NURS 222 Nursing V 5
NURS 252 Maternal-Newborn Nursing 5
NURS 253 Pediatric Nursing 5
NURS 254 Mental Health Nursing II 5
NURS 262 Nursing VI 8

*See Board of Registered Nursing Guidelines on substance abuse and mental illness, available in the Department of Nursing.

**Nursing fees are charged each quarter. See FINANCIAL INFOR- MATION in this catalog for details.
NURS 232 7 A, W, S  
Nursing V  
Applications of the nursing process with adult clients with increasingly acute and chronic alterations in functional health patterns. Clinical practicum includes acute care and outpatient settings. Three theory units (30 clock hours) and four clinical units (120 clock hours). Prerequisite: NURS 211 or 212. NURS 221 Corerequisite: NURS 211 or 212. NURS 222. Corerequisite: NURS 262.

NURS 254 5 A, W, S  
Mental Health Nursing II  
Nursing care of patients with psychiatric disorders. Theory and clinical application with group and individual psychiatric units of an acute-care medical center. Two theory units (20 clock hours) and three clinical units (90 clock hours). Prerequisite: NURS 125. Corequisites: NURS 134. Corerequisite: NURS 221.

NURS 262 8 A, W, S  
Nursing VI  
Builds on basic concepts and introduces new concepts to enable direct management of care for a group of patients by a nurse in a beginning staff position. Focuses on self-management and leadership skills necessary in the R.N. role. Preceptorship experience in selected units in an acute-care medical center. Three theory units (30 clock hours) and two clinical units (60 clock hours). Prerequisites: NURS 221, 222, 254, 255. Corequisites: NURS 253.

NURS 271 1-2 A, W, S; 1-6 Su  
Field Experience  
A work-study course offered through the Department of Nursing 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. Maximum credit available is 8 quarter units. Prerequisite: NURS 123 and approval by Nursing department faculty.

Bachelor of Science in Nursing, B.S.N.  
(Second-Step Program in Nursing)  
The mission of the baccalaureate program is to prepare registered nurses for professional practice within a broad liberal education in a context of Christian faith and human service. The second-step program fulfills this mission by providing students with the following:

- Opportunity to care for clients, families, and communities within the context of Christian values and human service.
- A broad liberal and professional education that will serve as the basis for professional growth, career mobility, and graduate education.

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 or diploma program will normally have completed the nursing prerequisites for the program and may transfer in a maximum of 61 lower division nursing credits. 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:
In addition to the requirements for admission to the College, the following criteria must be met:
1. Junior academic standing.
2. Completion of an associate degree, or its equivalent, in nursing.
3. Possession of a current registered nurse license.
4. Completion of the following:
   a. English 101 or equivalent.
   b. Speech Communication  
c. Required ADN cognates (see pg. 164).
   d. Introduction to College Chemistry
5. Students accepted for full-time enrollment will lack no more than 12 hours of general education required for the baccalaureate degree in nursing. Students accepted for part-time enrollment will lack no more than 33 hours of general education required for the baccalaureate degree in nursing.
6. At the discretion of the nursing faculty, and pending both NCLEX results and completion of prerequisites, students may enroll in one quarter of upper-division nursing theory courses (excluding NURS 393, 431, 461) before admission to the B.S.N. program.  

Baccalaureate Programs:
• Bachelor of Science in Nursing, B.S.N.
   1. A total of 192 quarter hours (60 in the upper division) including specified nursing courses, cognates, general education, and electives. A minimum of 108 community college credits may be transferred, with up to 64 credits in nursing.
   Cognates, general education, and elective courses are selected in consultation with the nursing faculty adviser. All nursing theory courses and cognate practicums are to be taken concurrently.
   2. Required Core Courses:
      NURS 349 Professional Issues in Nursing 4
      NURS 335 Health Assessment 4
      NURS 384 Health Care Delivery System 4
      NURS 390 Pathophysiology of Human Responses 4
      NURS 393 Health Education, Promotion and Self-Care 4
      NURS 394 Health Education Promotion and Self-Care Practicum 3
      NURS 420 Social Issues in Health Care 4
      NURS 431 Community Health Nursing 4
      NURS 432 Community Health Practicum 3
      NURS 461 Health Care Management 4
      NURS 462 Health Care Management Practicum 3
      NURS 485 Introduction to Nursing Research 4
   3. A course in cultural diversity (ANTH 124, SOCI 232, SOCI 355, or NURS 376) 4
   4. A course in communication (ANTH 124, SOCI 232, SOCI 355, or NURS 376) 4

5. Notification of acceptance to the College will be in writing from the Office of Enrollment Services.
6. Notification of acceptance into the Bachelor of Science in Nursing program will be in writing from the Department of Nursing.
7. Academic Requirements for Continuation in and Graduation from the Second-Step Program in Nursing:
   1. For general requirements see ADN required cognates and general education (pg. 164) and BSN required cognates and general education.
   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 grade withdrawals for performance, with no course repeated more than once.

Bachelor of Science in Nursing, B.S.N.
• A total of 192 quarter hours (60 in the upper division) including specified nursing courses, cognates, general education, and electives. A minimum of 108 community college credits may be transferred, with up to 64 credits in nursing.
   Cognates, general education, and elective courses are selected in consultation with the nursing faculty adviser. All nursing theory courses and cognate practicums are to be taken concurrently.
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      NURS 394 Health Education Promotion and Self-Care Practicum 3
      NURS 420 Social Issues in Health Care 4
      NURS 431 Community Health Nursing 4
      NURS 432 Community Health Practicum 3
      NURS 461 Health Care Management 4
      NURS 462 Health Care Management Practicum 3
      NURS 485 Introduction to Nursing Research 4
   3. A course in cultural diversity (ANTH 124, SOCI 232, SOCI 355, or NURS 376) 4

5. Notification of acceptance to the College will be in writing from the Office of Enrollment Services.
6. Notification of acceptance into the Bachelor of Science in Nursing program will be in writing from the Department of Nursing.
7. Academic Requirements for Continuation in and Graduation from the Second-Step Program in Nursing:
   1. For general requirements see ADN required cognates and general education (pg. 164) and BSN required cognates and general education.
   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 grade withdrawals for performance, with no course repeated more than once.

Bachelor of Science in Nursing, B.S.N.
• A total of 192 quarter hours (60 in the upper division) including specified nursing courses, cognates, general education, and electives. A minimum of 108 community college credits may be transferred, with up to 64 credits in nursing.
   Cognates, general education, and elective courses are selected in consultation with the nursing faculty adviser. All nursing theory courses and cognate practicums are to be taken concurrently.
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      NURS 384 Health Care Delivery System 4
      NURS 390 Pathophysiology of Human Responses 4
      NURS 393 Health Education, Promotion and Self-Care 4
      NURS 394 Health Education Promotion and Self-Care Practicum 3
      NURS 420 Social Issues in Health Care 4
      NURS 431 Community Health Nursing 4
      NURS 432 Community Health Practicum 3
      NURS 461 Health Care Management 4
      NURS 462 Health Care Management Practicum 3
      NURS 485 Introduction to Nursing Research 4
   3. A course in cultural diversity (ANTH 124, SOCI 232, SOCI 355, or NURS 376) 4

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6. Notification of acceptance into the Bachelor of Science in Nursing program will be in writing from the Department of Nursing.
7. Academic Requirements for Continuation in and Graduation from the Second-Step Program in Nursing:
   1. For general requirements see ADN required cognates and general education (pg. 164) and BSN required cognates and general education.
   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 grade withdrawals for performance, with no course repeated more than once.

Bachelor of Science in Nursing, B.S.N.
• A total of 192 quarter hours (60 in the upper division) including specified nursing courses, cognates, general education, and electives. A minimum of 108 community college credits may be transferred, with up to 64 credits in nursing.
   Cognates, general education, and elective courses are selected in consultation with the nursing faculty adviser. All nursing theory courses and cognate practicums are to be taken concurrently.
NURS 431  4 A  Community Health Nursing
Practicum
Applications of NURS 431. Corequisite: NURS 431.

NURS 461   4 S  Health-Care Management
Theories of leadership and management related to the organization and delivery of nursing care in a variety of settings. Corequisite: NURS 462.

NURS 462   3 S  Health-Care Management Practicum
Applies leadership and management theories and concepts in selected clinical settings. Corequisite: NURS 462.

NURS 495   1-3  Independent Study
An individual research course for advanced students with adequate background in appropriate nursing studies. Three hours maximum. Prerequisite: Permission of chair or associate chair.
Facility
Lloyd Best, chair; Bruce Ivey, Bill Mundy, James Robertson
Departmental Office: 238 Chan Shun Hall; 965-7269

Degrees and Programs
Physics, B.S. ................................................................. 159
Biophysics, B.S. ............................................................ 160
Natural Science, B.S. ...................................................... 160
Engineering ................................................................. 160
Teaching Credential ...................................................... 160

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 in physics include a four-year B.S. with a variety of emphases to suit the graduate scholar, applied researcher, secondary-school teacher and those proceeding to professional education in medical and allied health fields. The department offers a minor in physics.

This department houses the first two years of the engineering program that is affiliated with the School of Engineering at Walla Walla College.

Major in Physics, B.S.
➤ A minimum of 60 hours (36 in the upper division) chosen from physics and astronomy courses including the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 115</td>
<td>Astronomy</td>
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</tr>
<tr>
<td>PHYS 211-212-213</td>
<td>Physics</td>
<td>4-4-4</td>
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<tr>
<td>PHYS 314</td>
<td>Elementary Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 341-342</td>
<td>Classical Dynamics</td>
<td>3-3</td>
</tr>
<tr>
<td>PHYS 361-362-363</td>
<td>Electromagnetic Theory</td>
<td>3-3-3</td>
</tr>
<tr>
<td>PHYS 396</td>
<td>Seminar (4 quarters)</td>
<td>.5-.5-.5-.5</td>
</tr>
<tr>
<td>PHYS 445</td>
<td>Thermal Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 461-462</td>
<td>Quantum Physics</td>
<td>3-3</td>
</tr>
<tr>
<td></td>
<td>6 hours of upper-division laboratory, project and/or independent research</td>
<td>6</td>
</tr>
</tbody>
</table>

The remaining hours may be chosen from physics and astronomy courses and the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 344</td>
<td>Nuclear Physics and Chemistry</td>
<td>(3)</td>
</tr>
<tr>
<td>HIST 390</td>
<td>History and Philosophy of Science</td>
<td>(3)</td>
</tr>
<tr>
<td>PHIL 485</td>
<td>Issues in Science and Religion</td>
<td>(3)</td>
</tr>
</tbody>
</table>

➤ Required Cognate Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111-112-113</td>
<td>General Chemistry</td>
<td>5-5-5</td>
</tr>
<tr>
<td>CPTR 115</td>
<td>Computer Programming</td>
<td>4</td>
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<tr>
<td>ENGR 144</td>
<td>Circuit Theory</td>
<td>4</td>
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<tr>
<td>MATH 131-132-133</td>
<td>Calculus</td>
<td>4-4-4</td>
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<tr>
<td>MATH 265</td>
<td>Elementary Linear Algebra</td>
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<tr>
<td>MATH 267</td>
<td>Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH 269</td>
<td>Elementary Differential Equations</td>
<td>4</td>
</tr>
</tbody>
</table>

➤ Recommended Cognate:

Modern-language proficiency comparable to a one-year college course in French, German or Russian.

This course of study is adequate for the student who is preparing for graduate study in physics.
Major in Biophysics, B.S.

- A maximum of 60 hours (22 upper division) chosen from physics and biology courses including the following:
  - BIOL 111-112-113 Biological Foundations 5-5-5
  - BIOL 320 Cellular and Molecular Biology 4
  - BIOL 348 Systems Physiology 5
  - PHYS 211-212-213 Physics 4-4-4
  - PHYS 314 Elementary Modern Physics 4
  - PHYS 321-322 Biophysics 4
  - PHYS 396 Seminar (4 quarters) 5-5-5-5
- Four hours of upper-division physics including at least 1 hour of laboratory
- PHYS 344, 344L Nuclear Physics and Chemistry (Laboratory) 3-3
- PHYS 451, 451L Physical Chemistry (Laboratory) 3-1

The remaining hours may be chosen from physics and biology courses, the preceding chemistry courses and the following:
- CHEM 111-112-113 General Chemistry 5-5-5
- CHEM 111-112 Biological Foundations 5-5-5
- BIOL 331 Marine Science 4
- BIOL 345 Environmental Science 3
- BIOL 450 Philosophy of Origins 3
- CHEM 111-112 General Chemistry 5-5-5
- GEOG 233 Geology 4
- HIST 390 History and Philosophy of Science 3
- PHYS 111-112 General Physics 4-4-4
- PHYS 211-212-213 (or PHYS 211-212-213*) 5-5-5

**Physics Emphasis** (35 hours)
- PHYS 211-212-213 Physics 4-4-4
- MATH 131-132 Calculus 4-4-4
- MATH 314 Elementary Modern Physics 4
- One of the following courses:
  - ENGR 144 Circuit Theory 4
  - PHYS 256 Applied Optics 4
- PHYS 344 Nuclear Physics and Chemistry 3

For emphases in biology and chemistry, see under those departments.

Minor in Physics

- A minimum of 30 hours (12 upper division) chosen from physics, astronomy, and engineering courses (except ENGR 105).

Engineering

Engineering courses are offered for those who wish to begin study in engineering that meet the requirements of the first two years of the engineering degree of Walla Walla College. PUC has an affiliation with the School of Engineering of Walla Walla College for this purpose. Faculty of the WWCC School of Engineering visit PUC 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
- ENGR 115 Computer Programming 4
- ENGR 131 Engineering Drawing 3
- ENGR 105 Introduction to Engineering 3
- ENGR 211-212-213 Engineering Mechanics 3-3-3
- ENGR 144 Circuit Theory 4
- MATH 131-132-133 Calculus 4-4-4
- MATH 265 Elementary Linear Algebra 4
- MATH 267 Multivariable Calculus 4
- MATH 269 Elementary Differential Equations 4-4-4

Astronomy

**Lower-division courses:**

- **ASTR 115 Astronomy 5 A, W**
- **ASTR 173 Meteorology 1**
- **ENGL 101-102 College English 4**
- **ENGR 131 Engineering Drawing 3**
- **ENGR 105 Introduction to Engineering 3**
- **ENGR 211-212-213 Engineering Mechanics 3-3-3**
- **ENGR 144 Circuit Theory 4**
- **MATH 131-132-133 Calculus 4-4-4**
- **MATH 265 Elementary Linear Algebra 4**
- **MATH 267 Multivariable Calculus 4**
- **MATH 269 Elementary Differential Equations 4-4-4**

**Upper-division courses:**

- **ASTR 495 Independent Study 1 A, S**

**Required Core Courses:**

- ASTR 113 Astronomy 3
- ASTR 173 Meteorology 1
- BIOL 111-112 Biological Foundations 5-5-5
- PHYS 111-112 General Chemistry 5-5-5
- PHYS 331 Marine Science 4
- PHYS 345 Environmental Science 3
- PHYS 450 Philosophy of Origins 3
- CHEM 111-112 General Chemistry 5-5-5
- GEOG 233 Geology 4
- HIST 390 History and Philosophy of Science 3
- PHYS 111-112 General Physics 4-4-4
- PHYS 211-212-213 (or PHYS 211-212-213*) 5-5-5

**Physics Emphasis** (35 hours)

- PHYS 211-212-213 Physics 4-4-4
- MATH 131-132 Calculus 4-4-4
- MATH 314 Elementary Modern Physics 4
- One of the following courses:
  - ENGR 144 Circuit Theory 4
  - PHYS 256 Applied Optics 4
- PHYS 344 Nuclear Physics and Chemistry 3

For emphases in biology and chemistry, see under those departments.

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 B.S. degree in Natural Science. This program meets the newly established standards of quality and effectiveness and has been approved by the State of California Commission on Teacher Credentialing. A brochure describing the new program and its requirements is available in the physics department office. Students are invited to discuss the program with the Teacher Education Adviser in the physics department.

Those who plan to teach on the secondary level should consult with the Credential Analyst in the Department of Education 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.
PHYS 106L 4 S Introduction to Physics Laboratory
A laboratory course emphasizing physical measurements for those curricula requiring an introductory physics course with laboratory. One three-hour laboratory weekly. Prerequisite: PHYS 105.

PHYS 111-112-113 3-3-3 A-W-S General Physics
An introduction to the fundamental natural phenomena of the physical universe. Topics include Newtonian mechanics, waves, sound, heat, electricity and magnetism, optics, atomic and nuclear physics, special relativity, and elementary particles. Emphasis on fundamental principles and methods of physics. Course is suitable for preprofessional students and also acceptable as part of the general-education requirement in basic science. Three lectures and one laboratory weekly. Knowledge of algebra and trigonometry is required at the level provided by MATH 106, 130.

PHIL 485 3 S Issues in Science and Religion
The relationship and interaction between science and religion: epistemology, the methods, language, scope and limitations of science and religion; problems of ethics and science. Meets in part the college-level Science/Mathematics general-education requirement and is an elective in the Honors Program. Two hours of credit may be applied toward the general-education requirement in religion. Prerequisites: PHYS 105 or CHEM 101, or equivalent, and PHIL 101 or permission of the instructor. Odd years.

PHYS 321-322 3-3 W-S Biophysics
A course for the upper-division physics student with adequate preparation in biology, covering a variety of topics in which physical analysis is applied to living systems, and the interaction with living systems is studied. Prerequisites: BIOL 111-112-113, CHEM 111-112-113, PHYS 314. Even years.

PHYS 341-342 3-3 A-W Classical Dynamics
A development of classical mechanics. Topics include 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 A-W-S Quantum Mechanics
Upper-division courses:

Lower-division courses:

Physics and Engineering
Faculty
Malcolm Maxwell, chair; Angel Hernandez, Julius Nam, Leo Ranzolin Jr., Jean Sheldon, Myron Widmer
Departmental Office: 16 Graf Hall; 965-6206

Degrees and Programs:
Theology, B.A.............................................................. 165
Teaching Credential...................................................... 166
Religion, B.A.............................................................. 166
Lay Ministries and Bible Instructor Training, A.S............ 167

In a church-related Christian liberal arts college such as Pacific Union College, the Department of Religion is called upon to meet a variety of academic needs. In addition to providing a minimum of 18 hours of course credit for each four-year graduate of the College, the department offers majors and a minor for those who desire a more intensive study of the Bible and the Christian faith.

Students who seek an education to prepare themselves for successful service as ministers, church workers, or active Christian lay workers will find in their religion courses not only content but also inspiration, specific methods, and other practical helps. Students with specific career goals in mind should note carefully the particular careers for which each program of study is designed. Departmental advisers are prepared to assist the student in planning an academic program. The career listings are by no means exhaustive, and there is often more than one program of study suitable for a given career preparation.

Major in Theology, B.A.
➤ A minimum of 65 hours (43 upper division) including the following:

- RELB 120-121  Life and Teachings of Jesus  2-2
- RELB 125  Books of Moses  4
- RELL 435  Greek Epistles of Paul  4
- RELL 445  Hebrew Prophets  4
- RELT 235  Spiritual Formation  3
- RELT 331-332-333  Doctrinal Studies  3-3-3
- RELT 381  E. G. White and Adventism  2
- RELT 382  The Writings of E. G. White  2
- RELT 464  Seminar in Theology  3

One course from:
- RELB 370  Studies in Daniel (3)
- RELB 371  Studies in Revelation (3)

One course from:
- RELB 315  Biblical Ethics (3)
- RELT 216  Introduction to Christian Ethics (3)
- RELT 355  Christian Ethics in Society (3)

Professional and Applied Theology Courses:
- RELP 124  Ministry Colloquium I  1
- RELP 224  Ministry Colloquium II  1
- RELP 324  Ministry Colloquium III  1
- RELP 424  Ministry Colloquium IV  1
- RELP 381-382  Biblical Preaching  3-3
- RELP 391-392-393  Extern Program  1-1-1
- RELP 475-476  Christian Ministry  3-3

To complete the major, a minimum of 5 additional hours must be selected from Religion courses other than those listed below.

➤ Required Cognate Courses:
- RELH 320  Christian History: To 1500  3
- RELH 321  Christian History: 1500 to the Present  3
- RELL 225-226  Beginning Greek  3-3
RELB 325-326 Intermediate Greek 3-3
RELT 427-428 Biblical Hebrew 3-3

This major is designed for the student who is preparing for 
Christian ministry in one of its various forms, including pastoral 
ministry, youth ministry, chaplaincy, and teaching religion. The 
major is particularly suitable for the student who plans to seek 
professional education in a seminary. Students who desire to 
complete this major must apply to the Department of Religion 
for admission into the Ministerial Studies Program during the 
spring quarter of the sophomore year. Admission into the pro-
gram requires meeting the following criteria:

1. Satisfactory completion of the prescribed battery of dia-
gnostic tests and counseling process, which must be com-
pleted during the spring quarter of the sophomore year (a 
fee is assessed).
2. Regular academic standing
3. A grade-point average of 2.5 or better
4. No serious deficiencies in any given area on the evalua-
tion by the departmental faculty

All applications are reviewed by the faculty of the depart-
ment, and a letter of response is sent to each applicant before the 
autumn quarter of the junior year. Exceptions to these criteria 
are considered individually and may be approved by the Religion 
department faculty.

Each student successfully completing the Ministerial Stud-
ies Program, the academic requirements of this major, and the 
required Summer in Ministry Internship is eligible for recom-
mandation by the Department of Religion as a candidate for 
entrance into seminary and subsequent work in some branch of 
Christian ministry.

Teaching Credential

Students planning to obtain a teaching credential should con-
sult with the Credential Analyst in the Department of Education 
to become acquainted with the specific requirements outlined in 
the Education section of this catalog

Major in Religion, B.A.

➤ A minimum of 45 hours (30 upper division) including the 
following:

RELB 120-121 Life and Teachings of Jesus 2-2
RELB 125 Books of Moses 4
RELB 310 Prophets of Israel 3
RELT 387 The Story of the English Bible 3
RELT 460 Paul and His Letters 3
RELT 331-332-333 Doctoral Studies 3-3-3
RELT 381 Ellen G. White and Adventism 2

RELT 382 The Writings of Ellen G. White 2

One course from:

RELP 210 Crete Worship (3)
RELP 381 Biblical Preaching (3)
RELP 391-392-393 Extern Program (1-1-1)
RELP 484 Field Practicum (3 minimum)
RELT 235 Spiritual Formation (3)

One course from:

RELB 370 Studies in Daniel (3)
RELB 371 Studies in Revelation (3)
RELB 320 World Religions (3)
RELB 329 American Denominations (3)
RELT 216 Introduction to Christian Ethics (3)
RELT 320 Philosophy of Religion (3)

➤ Required Cognate Courses:

RELB 320 History of Israel: To 1500 3
RELB 321 History of Israel: 1500 to the Present 3

This major is designed for those who want a broad back-
ground in religion but who plan careers in other areas, such as 
medicine, dentistry, law, and a variety of other professions.

Minor in Religion

➤ A minimum of 30 hours (12 upper division) including the 
following:

RELB 120-121 Life and Teachings of Jesus (2-2)
RELB 125 Books of Moses (4)
RELB 310 Prophets of Israel (3)
RELB 460 Paul and His Letters (3)
RELB 370 Studies in Daniel (3)
RELB 371 Studies in Revelation (3)
RELT 335 Salvation in the Sanctuary (3)
RELT 381 Ellen G. White and Adventism (2)
RELT 382 The Writings of Ellen G. White (2)
RELB 320 World Religions (3)
RELB 329 American Denominations (3)
RELT 216 Introduction to Christian Ethics (3)
RELT 320 Philosophy of Religion (3)

Associate Degree in Lay Ministries and 
Bible Instructor Training, A.S.

➤ A minimum of 90 total hours for graduation which includes 
the major, cognate, and general-education requirements. A 
minimum of 60 hours in the core and cognate courses is re-
quired in the A.S. degree program.

This two-year degree program has been established primarily 
for mature men and women who desire special education and 
training for a variety of church ministries including service as a 
Bible instructor. The specific curriculum is designed by the 
department chair in consultation with the student in terms of 
career objectives and requirements.

The regular college freshman planning on future service 
in some area of church ministries should enroll in one of the 
department’s four-year B.A. degree programs.

Biblical Studies

LOWER-DIVISION COURSES:

RELB 100 2 W

Methods of Bible Study

An analysis of appropriate ways to approach the study of various types of 
written material found in the Bible.

RELT 110 3 A

Biblical Literature

The setting and content of representative literature found in the 
Bible; a survey of the general nature and scope of the Old and New Testaments.

RELB 114-115-116 2-2-2 A-W-S

Bible Themes

Selected themes related to the problem of sin and the plan of redemption as 
presented in the Old and New Testaments. Open to lower-division students 
only. Admission by permission of the instructor.

RELB 120-121 2 A, S

Life and Teachings of Jesus

The life, work, and teachings of Je-

sus from selected portions of Matthew, 
Mark, Luke, and John. (The two courses 
may be taken in either order.)

RELB 120: Historical and geographical 
context; the birth of Christ through the 
early part of His earthly ministry.

RELB 121: The later period of Christ’s earthly ministry with emphasis on His 
Crucifixion, resurrection, and ascension.

RELB 125 4 A, S

Books of Moses

The literature, history, and theology of the 
first five books of the Old Testament.

RELB 230 3 W

Psalms and Writings

Psalms, Proverbs, Song of Solomon, 
and other books of the Old Testament 
classified as “Writings.” Emphasis on 
major themes and representative pas-
sages.

RELB 240 2 A

General Epistles

An examination of selected chapters from the New Testament letters of James, 
Peter, John and Jude.

RELB 246 2 S

The Preaching of Israel’s Prophets

Selected messages of the prophets of 
an ancient Israel in the context of Israel’s 
history and their value for meeting the 
problems of society today.

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.

RELB 315 3 W

Biblical Ethics

Major moral teachings of the Old and 
New Testaments in relation to contem-
porary moral issues.

RELB 320 2 W

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.

RELB 328 4 W

Jesus and the Gospels

The theological insights presented by 
the gospels in the portrayal of the life, 
ministry and death of Jesus.

RELT 341 2 A

Jesus as Healer

The role of Jesus as healer as seen 
Enrollment limited to B.S.N. (nursing) 
students.

REL 167
RELB 342 3 W Studies in Bible Interpretation

RELB 370 3 A, S Studies in Daniel
The book of Daniel, with in-depth study of its prophetic chapters.

RELB 371 3 W Studies in Revelation
The book of Revelation, with in-depth study of its prophetic messages.

RELB 460 3 W, S Paul and His Letters
Analysis and interpretation of selected portions from the epistles of the Apostle Paul.

RELB 495 1-3 A, W, S Independent Study
With the approval of the department chair, properly qualified students may undertake an investigation of a problem suited to their background and experience. Maximum of nine hours.

Historical Studies
Upper-division courses:

RELB 311 3 A World Religions
An introduction to selected 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 the Christian revelation.

RELB 320 3 W Christian History: To 1500
(See also HIST 320.) Developments in the Christian Church from its pre-Christian origins to the Reformation. Special emphasis on those social, political, intellectual, and religious pressures that brought significant change to the Church and its teachings. Detailed examination of significant works by major Christian figures.

RELB 321 3 S Christian History: 1500 to the Present
(See also HIST 321.) Developments in the Christian Church from the beginning of "the modern world" to the present day. Emphasis on the effects on the Church of major cultural movements, such as the Reformation, the Enlightenment, colonization and imperialism, modern warfare, and ecumenism. Detailed examination of significant works by Christians in response to "the modern world."

RELB 329 3 S American Denominations
A survey of major traditions in America. Includes both historical and theological dimensions of American religious identity, with a view toward broadening the contexts of Adventism.

RELB 340 3 A Biblical Archaeology
The Bible in its religious, cultural, and political environment as illuminated by discoveries of modern archaeology.

RELB 387 3 A The 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.

RELB 495 1-3 A, W, S Independent Study
With the approval of the department chair, properly qualified students may undertake an investigation of a problem suited to their background and experience. Maximum of nine hours.

Biblical Languages
Most of the courses in this area are required cognates for the theology major. No courses with the prefix RELB may apply as electives to the religion or theology major or to the religion minor except RELB 435 Greek Epistles of Paul and RELB 445 Hebrew Prophets.

Lower-division course:
RELB 225-226 3-3 W-B Beginning Greek
Basic grammar and translation of the Koine Greek of the New Testament, with attention to exegetical tools and methods.

Upper-division courses:

RELB 325-326 3-3 A-W Intermediate Greek

RELB 427-428 3-3 A-W Biblical Hebrew
Basic grammar, vocabulary, and syntax of Biblical Hebrew, including selected readings from various portions of the Old Testament text.

RELB 435 4 S Greek Epistles of Paul
Exegesis of the Greek text of selected passages of Paul’s letters in the light of the historical background of his writings and his theological thought as a whole. Prerequisite: RELB 323-326.

RELB 445 4 S Hebrew Prophets
Translation and exegesis of selected passages from the Hebrew text, and a study of the historical background, literature, and theology of selected Old Testament prophetic books. Prerequisite: RELB 427-428.

Lower-division course:
RELB 225-226 3-3 W-B Beginning Greek
Basic grammar and translation of the Koine Greek of the New Testament, with attention to exegetical tools and methods.

Upper-division courses:

RELB 124 1 A Ministry Colloquium I
Lecture/discussion series for freshmen majors in religion. Graded S/F. In-Progress ("IP") grading system.

RELB 210 3 S Creative Worship
A "hands-on" course that 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” portion also helps students understand contemporary culture and its worship patterns. Not applicable toward a theology major or minor.

Religion

Upper-division courses:

RELB 319 2 S Church Missions in the Modern World
A survey of contemporary mission theology and methodology, emphasizing personal and group mission experiences, comparative religions, language learning, and interpersonal skills. This course is prerequisite to student missionary appointment; enrollment limited to student missionary appointees, exceptions only by approval of the instructor.

RELB 324 1 A Ministry Colloquium III
Lecture/discussion series for junior majors in theology. Graded S/F. In-Progress ("IP") grading system.

RELP 346 2 S Spiritual Care for Patients
Development of knowledge and skills for meeting spiritual needs that arise in patient care. Includes a survey of religious traditions to inform the caring ministry of the health care professional. Enrollment limited to B.S.N. students.

RELP 381-382 3-3 A Biblical Preaching
The art, discipline, and process of sermon preparation and delivery focused on the basic questions of why, what, and how we preach. Must be taken in sequence. Two lectures and one lab weekly. Prerequisites: junior- or senior-year status; fulfillment of General Education requirement in oral communication. Odd years.

RELP 385 1-6 W Field Evangelism
Participation in an approved Field School of Evangelism, or field experience, under an approved minister. Graded S/F.

RELP 391-392-393 1-2 A-W-S Extern Program
The course includes field work in assigned churches and a weekly seminar. Limited to junior and senior theology majors who have been accepted into the Ministerial Studies Program. Maximum of six hours.

RELP 424 1 A Ministry Colloquium IV
Lecture/discussion series for senior majors in theology. Graded S/F. In-Progress ("IP") grading system.
An introduction to the theology, theory, and practice of Christian ministry, with principal focus on the pastor's role and 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.

**RELP 495** Independent Study
With the approval of the department chair, properly qualified students may undertake an investigation of a problem suited to their background and experience. Available every quarter. Maximum of nine hours.
Faculty
Tom Turner, chair; Terry Cantrell, William Price, Nathan Tasker, Jon Wood
Departmental Office: 260 Fisher Hall; 965-6604

Degrees and Programs
Aviation, B.S. ......................................................... 173
Graphics Technology, B.S. ...................................... 174
Television and Film Production, B.S. ......................... 174

The Department of Technology offers the following curricula:
Aviation prepares students interested in positions in aviation. Training includes theory, ground and flight instruction leading to pilot certificates and ratings from Private Pilot through Commercial Pilot and Flight Instructor. Graduates may take positions as private and commercial pilots, mission and medical pilots, and others.
Graphics Technology is designed to prepare students for professional competency and leadership in the computer-based graphics industry. The instructional core of this program is based on numerous professional computer applications to give students the opportunity to learn the most modern techniques and skills of graphic creations, manipulations, and output.
Television and Film Production opens the exciting world of digital video production through training and hands-on experience with professional, industry-standard equipment, software, computers, and more. Instruction focuses on using the new digital format for broadcast, documentary, and short film production, and is designed to give the graduate the ability to work independently or to fill one of the many job descriptions in this fast-growing industry.

Major in Aviation, B.S.
Students transferring into the aviation program with previously earned FAA certificates or ratings should apply through the Technology department at the time of initial registration for course credit (see “Credit by Examination,” page 39). 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 financial information section of this catalog.

➤ A minimum of 68 hours (31 in the upper division).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AVIA 170</td>
<td>Fundamentals of Aviation</td>
<td>2</td>
</tr>
<tr>
<td>AVIA 172</td>
<td>Electronics and Fuel Systems</td>
<td>2</td>
</tr>
<tr>
<td>AVIA 173</td>
<td>Meteorology</td>
<td>4</td>
</tr>
<tr>
<td>AVIA 175</td>
<td>Private Pilot Theory</td>
<td>4</td>
</tr>
<tr>
<td>AVIA 176</td>
<td>Private Flight Training</td>
<td>2</td>
</tr>
<tr>
<td>AVIA 177</td>
<td>Intermediate Private Flight Training</td>
<td>2</td>
</tr>
<tr>
<td>AVIA 178</td>
<td>Advanced Private Flight Training</td>
<td>2</td>
</tr>
<tr>
<td>AVIA 275</td>
<td>Instrument Pilot Theory</td>
<td>4</td>
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<tr>
<td>AVIA 276</td>
<td>Instrument Flight Training</td>
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<td>AVIA 277</td>
<td>Intermediate Instrument Flight Training</td>
<td>3</td>
</tr>
<tr>
<td>AVIA 278</td>
<td>Advanced Instrument Flight Training</td>
<td>2</td>
</tr>
<tr>
<td>AVIA 305</td>
<td>Aircraft Systems</td>
<td>3</td>
</tr>
<tr>
<td>AVIA 375</td>
<td>Commercial and CFI Theory</td>
<td>4</td>
</tr>
<tr>
<td>AVIA 376</td>
<td>Commercial Flight Training</td>
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<tr>
<td>AVIA 377</td>
<td>Intermediate Commercial Flight Training</td>
<td>2</td>
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<tr>
<td>AVIA 378</td>
<td>Advanced Commercial Flight Training</td>
<td>2</td>
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<tr>
<td>AVIA 379</td>
<td>Aerodynamics</td>
<td>2</td>
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<tr>
<td>AVIA 470</td>
<td>Fundamentals of Flight Instruction</td>
<td>1</td>
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<tr>
<td>AVIA 471</td>
<td>Flight Instructor Flight Training</td>
<td>4</td>
</tr>
<tr>
<td>AVIA 472</td>
<td>Instrument Instructor Flight Training</td>
<td>3</td>
</tr>
</tbody>
</table>
AVIA 476 Add-on Class Rating 2
AVIA 477 Human Factors in Aviation 3
AVIA 478 Add-on CFI Rating 2
ELEC 141 Applied Electronics 3

Recommended: a minor in Business Administration. Students should expect and plan for approximately $2,000 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.

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 clock hours of commercial work related to the major field and performed under approved supervision. The College will help place students in qualifying positions.

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.

Minor in Aviation

➤ A minimum of 30 hours (9 upper division) to be selected, in consultation with the Department Chair, from the requirements listed for the major in Aviation.

Major in Graphics Technology, B.S.

➤ A minimum of 60 hours (30 in the upper division):

AVIA 170 2 W
Elec 175 3

GRPH 354 Color Imaging 2
GRPH 356 Doing Business on the Web 3
GRPH 357 3D Digital Imaging 3
MDIA 238 Digital Effects I 3
MDIA 354 Digital Video Distribution 3
TECH 491 Internship 3
Elec H 499 Senior Project 2

➤ Electives (6 hours, 3 upper division): 6
Any GRPH or MDIA courses not listed above; chosen in consultation with adviser.

For students interested in owning or managing a business in the graphics industry, a minor in Business Administration is strongly recommended.

Recommended Field Experience

Students majoring in Graphics Technology should have completed, by the end of winter quarter of their senior year, 500 clock hours of commercial work related to the major field and performed under approved supervision. The College will help place students in qualifying positions.

The objective of this program is to prepare graduates for positions in the graphics and printing industry where an appreciation of both disciplines and competence in them are required.

Minor in Graphics Technology

➤ A minimum of 30 hours (9 upper division) to be selected in consultation with the Department Chair from the requirements listed for the major in Graphics Technology.

Major in Television and Film Production, B.S.

➤ A minimum of 68 hours (42 in the upper division):

AVIA 170 2 W
Elec 175 3

GRPH 151 Principles of Digital Imaging 3
GRPH 153 Introduction to Macintosh 2
MDIA 152 Introduction to Digital Video Technology 1
MDIA 158 Media Production Concepts 2
MDIA 231 Digital Audio Concepts 2
MDIA 241 Lighting and Exposure 2
MDIA 253 Broadcast Production I 3
MDIA 254 Broadcast Production II 3
MDIA 255 Broadcast Production III 3
MDIA 256 Digital Nonlinear Editing 3
MDIA 258 Motion Graphics and Effects 3
MDIA 331 Elements of Cinema 3

GRPH 357 3D Digital Imaging 3
MDIA 346 Introduction to Screenwriting 4
MDIA 355 Digital Video Distribution 4
MDIA 432 Documentary Production I 3
MDIA 433 Documentary Production II 3
MDIA 451 Professional Digital Media 3
MDIA 452 Digital Film Production I 3
MDIA 453 Digital Film Production II 3
MDIA 454 Digital Film Production III 3
TECH 491 Internship 3
TECH 499 Senior Project 2

Recommended Field Experience

All students majoring in Digital Video Technology should have completed, by the end of winter quarter of the senior year,

500 clock hours of commercial work related to the major field and performed under approved supervision. The college will help place students in qualifying positions.

The objective of this program is to prepare graduates for positions in the digital and/or interactive media industry. Segments include but are not limited to education, training, entertainment, and television.

Minor in Television and Film Production

➤ A minimum of 30 hours (9 upper division) to be selected in consultation with the Department Chair from the requirements listed for the major in Digital Media Technology.

AVIA 172 2 W
Elec 175 3

GRPH 354 Color Imaging 2
GRPH 356 Doing Business on the Web 3
GRPH 357 3D Digital Imaging 3
MDIA 238 Digital Effects I 3
MDIA 354 Digital Video Distribution 3
TECH 491 Internship 3
Elec H 499 Senior Project 2

➤ Electives (6 hours, 3 upper division): 6
Any GRPH or MDIA courses not listed above; chosen in consultation with adviser.

For students interested in owning or managing a business in the graphics industry, a minor in Business Administration is strongly recommended.

Recommended Field Experience

Students majoring in Graphics Technology should have completed, by the end of winter quarter of their senior year, 500 clock hours of commercial work related to the major field and performed under approved supervision. The College will help place students in qualifying positions.

The objective of this program is to prepare graduates for positions in the graphics and printing industry where an appreciation of both disciplines and competence in them are required.

Minor in Graphics Technology

➤ A minimum of 30 hours (9 upper division) to be selected in consultation with the Department Chair from the requirements listed for the major in Graphics Technology.

Major in Television and Film Production, B.S.

➤ A minimum of 68 hours (42 in the upper division):

AVIA 170 2 W
Elec 175 3

GRPH 151 Principles of Digital Imaging 3
GRPH 153 Introduction to Macintosh 2
MDIA 152 Introduction to Digital Video Technology 1
MDIA 158 Media Production Concepts 2
MDIA 231 Digital Audio Concepts 2
MDIA 241 Lighting and Exposure 2
MDIA 253 Broadcast Production I 3
MDIA 254 Broadcast Production II 3
MDIA 255 Broadcast Production III 3
MDIA 256 Digital Nonlinear Editing 3
MDIA 258 Motion Graphics and Effects 3
MDIA 331 Elements of Cinema 3

MDIA 346 Introduction to Screenwriting 4
MDIA 355 Digital Video Distribution 4
MDIA 432 Documentary Production I 3
MDIA 433 Documentary Production II 3
MDIA 451 Professional Digital Media 3
MDIA 452 Digital Film Production I 3
MDIA 453 Digital Film Production II 3
MDIA 454 Digital Film Production III 3
TECH 491 Internship 3
TECH 499 Senior Project 2

Recommended Field Experience

All students majoring in Digital Video Technology should have completed, by the end of winter quarter of the senior year,

500 clock hours of commercial work related to the major field and performed under approved supervision. The college will help place students in qualifying positions.

The objective of this program is to prepare graduates for positions in the digital and/or interactive media industry. Segments include but are not limited to education, training, entertainment, and television.

Minor in Television and Film Production

➤ A minimum of 30 hours (9 upper division) to be selected in consultation with the Department Chair from the requirements listed for the major in Digital Media Technology.

AVIA 172 2 W
Elec 175 3

GRPH 354 Color Imaging 2
GRPH 356 Doing Business on the Web 3
GRPH 357 3D Digital Imaging 3
MDIA 238 Digital Effects I 3
MDIA 354 Digital Video Distribution 3
TECH 491 Internship 3
Elec H 499 Senior Project 2

➤ Electives (6 hours, 3 upper division): 6
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MDIA 231 Digital Audio Concepts 2
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MDIA 254 Broadcast Production II 3
MDIA 255 Broadcast Production III 3
MDIA 256 Digital Nonlinear Editing 3
MDIA 258 Motion Graphics and Effects 3
MDIA 331 Elements of Cinema 3

MDIA 346 Introduction to Screenwriting 4
MDIA 355 Digital Video Distribution 4
MDIA 432 Documentary Production I 3
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MDIA 452 Digital Film Production I 3
MDIA 453 Digital Film Production II 3
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AVIA 172 2 W
Elec 175 3

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GRPH 356 Doing Business on the Web 3
GRPH 357 3D Digital Imaging 3
MDIA 238 Digital Effects I 3
MDIA 354 Digital Video Distribution 3
TECH 491 Internship 3
Elec H 499 Senior Project 2

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For students interested in owning or managing a business in the graphics industry, a minor in Business Administration is strongly recommended.

Recommended Field Experience

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The objective of this program is to prepare graduates for positions in the graphics and printing industry where an appreciation of both disciplines and competence in them are required.

Minor in Graphics Technology

➤ A minimum of 30 hours (9 upper division) to be selected in consultation with the Department Chair from the requirements listed for the major in Graphics Technology.
AVIA 177 2 Su, A, W, S Intermediate Private Flight Training
Includes five hours of solo practice of take-off, air maneuvers, and landings. Special training in short-field and soft-field landings, night landings, and cross-country flying techniques with a certificated flight instructor completing a minimum of two dual cross-country flights. Prerequisite: AVIA 176. In-Progress (“IP”) grading system.

AVIA 178 2 Su, A, W, S Advanced Private Flight Training
Includes ten hours of solo cross-country flight in addition to various sessions with an instructor and solo practice in preparation for the FAA private pilot flight examination. Prerequisite: AVIA 177. In-Progress (“IP”) grading system.

AVIA 273 Practicum in Flight
1-6 Su, A, W, S
A minimum of forty hours of practice in cross-country flying as pilot-in-command to assigned destinations in preparation for the instrument pilot rating. Flights include practice with cockpit management skills and use of attitude instrument flying. Prerequisite: AVIA 178. In-Progress (“IP”) grading system. Repeatable to six times.

AVIA 275 2 Su, A, W, S Instrument Pilot Theory
From basic attitude instrument flying to getting around in the modern airspaces system on an IFR flight plan. Preparation for the FAA instrument written examination and the instrument instructor written examination. Prerequisite or corequisite: AVIA 170, 276.

AVIA 276 2 Su, A, 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 air-craft with an additional work load that includes such factors as communications, coping clearances, using a timing device, and reading charts in flight. Also includes VOR andADF navigation, DME arcs, and holding patterns of all types. Prerequisite or corequisite: AVIA 275. In-Progress (“IP”) grading system.

AVIA 277 3 Su, A, W, S Intermediate Instrument Flight Training
Develops skills needed for executing VOR instrument approaches, ADF approaches, localizer approaches, ASR approaches, non-ADF approaches, and ILS precision approaches. Prerequisite: AVIA 276. In-Progress (“IP”) grading system.

AVIA 278 2 Su, A, W, S Advanced Instrument Flight Training
Cross-country instrument flying making use of all former instrument flight. Use of acquired instrument skills in cross-country flights to large airports. Includes a comprehensive review and preparation for the FAA instrument flight examination. Prerequisite: AVIA 277. In-Progress (“IP”) grading system.

AVIA 376 2 Su, A, W, S Cross-Country Flight Training
The systems, performance, and procedures necessary for operating a complex aircraft. Approximately fifty percent of the instruction treats flight complexity in a complex aircraft. Includes high-performance flight experience in IFR and night operations. Prerequisite or corequisite: AVIA 375. In-Progress (“IP”) grading system.

AVIA 377 2 Su, A, W, S Intermediate Commercial Flight Training
Involves instruction in the maneuvers and skills required for the commercial certificate. Involves instruction and practice in all types of operations essential for an advanced commercial pilot. Special emphasis on in-flight emergencies. Prerequisite: AVIA 376. In-Progress (“IP”) grading system.

AVIA 378 2 Su, A, W, S Advanced Commercial Flight Training
How to work in remote areas and in foreign lands as a bush or mission pilot; operations in very cold weather; survival techniques. Conventional gear (tail-wheel) operations, mountain flying, off-airport procedures, very short field landings and take-offs. Course offering depends on availability of aircraft. Prerequisite: AVIA 377. In-Progress (“IP”) grading system.

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 278. Even 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 the pitfalls common to many students and flight instructors during flight training. Required for instructor certification. Prerequisite: AVIA 2/8.

AVIA 471 4 Su, A, 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 document-ation and certification procedures. Prerequisites: AVIA 2/3, 2/8. In-Progress (“IP”) grading system.

AVIA 472 2 Su, A, 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 2/3, 2/8. In-Progress (“IP”) grading system.

AVIA 473 1-6 Su, A, W, S Advanced Practicum in Flight
Additional instruction in flight maneuvers, flight planning, and flight operation into high-density traffic areas under instrument conditions. Special reports or research projects are required in conjunction with these assignments. Prerequisite: AVIA 471. Repeatable to six times. In-Progress (“IP”) grading system.

AVIA 476 5 Su, A, W, 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 multicopter cockpits. Prerequisite: Commercial Multicopter Pilot Certificate or permission of course instructor.

AVIA 477 3 S Applied Electronics
A nonmathematical approach to electronics. Electronic components and circuit combinations to make useful equipment. Includes building and testing bargraph 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 weekly.
AUTO 101 2 S
Auto Mechanics for Women
The mechanical operating principles of the entire car, basic service, the components of a car, how to buy a car, and how to find a good technician to service the car. Especially planned for women only. Two lectures and one laboratory weekly. Not applicable toward a technology degree.

AUTO 171 3 A
Auto Mechanics Fundamentals
Designed for the Beginner. The general field of auto mechanics, emphasizing those facets of the field that relate to car service. Two lectures and one laboratory weekly.

AUTO 172 3 W
Automotive Electronics and Fuel Systems
The electrical, fuel, and smog systems of the modern automobile. Individual systems theory and methods of repair, their relationship to each other, and the way the central computer manages them. Two lectures and one laboratory weekly.

GRAPH 153 2 A
Introduction to Macintosh
Computer orientation for those with little or no previous computer experience. Practical, hands-on training, including instruction about the computer and its internal operating system, word processing, virus protection; orientation to practical computer uses and popular programs. One lecture and three hours laboratory weekly.

GRAPH 155 1 A
Introduction to Graphics Technology

GRAPH 158 2 W
WWW Portfolio Development
A unique approach to development of dynamic personal portfolios for persons in all disciplines. A practical guide to what to include; how to design, update in all disciplines. A practical guide to what to include; how to design, update.

GRAPH 253 3 A
Publication Technology I
Electronic typesetting and composition for formatting and interfacing word processing. The basics of importing text and graphics from other applications, including scanners; evaluation of desktop publishing software. Lab projects with Adobe PageMaker®. Lab fee. Two lectures and one laboratory weekly.

GRAPH 256 2 W
Publication Technology II
Continuation of GRAPH 253, using the Macintosh computer as hardware platform and QuarkXPress®. Emphasis on advanced page layout. Introduction to formatting long documents. Use of multiple master pages; building color pages. One lecture and one laboratory per week. Lab fee. Prerequisite: GRAPH 253 or permission of the instructor.

GRAPH 257 2 S
Publication Technology III
Continuation of GRAPH 253 and 256, using the Macintosh computer and Adobe Illustrator®. Emphasis on using Illustrator as a means of creating special typographic effects and reworking templates imported from a scanner. Introduction to Illustrator for creating original designs. One lecture and one laboratory per week. Lab fee. Prerequisite: GRAPH 256 or permission of the instructor.

GRAPH 258 2 W
WWW Portfolio Development
A unique approach to development of dynamic personal portfolios for persons in all disciplines. A practical guide to what to include; how to design, update in all disciplines. A practical guide to what to include; how to design, update.

GRAPH 352 3 W
Digital Image Technology
Introduction to Adobe Photoshop®, Illustrator®, and Dimensions® as tools to create and edit images. Freedom for individualized techniques in developing images. Photoshop® as a tool to scan and adjust continuous-tone photographs and illustrations for accurate reproduction by the graphics industry. Two lectures and one laboratory per week. Lab fee. Prerequisite: GRAPH 253 or permission of the instructor. ART 121 or ART 124 strongly advised.

GRAPH 353 2 W
Web-Page Publishing Technology
An elementary approach to creating a Web page. Includes choosing an application for easy and automatic HTML scripting, developing fast-acting Web pages, and creating user interactivity. Outline of basic Web rules and weaknesses. Prerequisite: GRAPH 253, CPT 105 or GRAPH 153 or demonstrable computer competency (Mac or PC). Odd years.

GRAPH 354 2 S
Color Imaging
Procedures for image generation and manipulation, including color proofing, photolithographic reproduction, laser printing and electronic publishing. Two lectures and one laboratory weekly. Prerequisite: GRAPH 253. Even years.

GRAPH 355 3 A
Doing Business on the Web
An overview of business activity on the Web. Includes ethics, confidentiality, security, and business practices. Lab activities include planning a pseudo-Web page for marketing that can be monitored and maintained remotely. Prerequisite: GRAPH 353. Even years.

GRAPH 356 3 S
Motion Graphics and Effects
Use of the latest desktop video graphics and effects software in creating motion graphics and composing them on video. Prerequisite: GRAPH 257, 352.

GRAPH 357 3 S
3D Digital Imaging
Introduction to production of still and animated 3D images. Fundamentals of modeling in three dimensions. Development of simple choreography and movement of models, logos, and 3D text. Two lectures and one laboratory per week. Lab fee. Prerequisite: GRAPH 352.

GRAPH 358 3 A
Lighting and Exposure
Theory of and practice in using professional lighting equipment and natural lighting, along with camera exposure control, to achieve various moods and effects. Prerequisite: MDIA 158.

MDIA 152 2 A
Introduction to Media Technology
An overview of multimedia, its effects on lifestyles, the workplace, education, training, entertainment, and communication. An examination of real-world applications, markets, and employment opportunities. Lectures, discussions, demonstrations, and field trips.

MDIA 153 3 W
Electronic Publishing
Overview of the advancement of electronic publishing software. Lab projects with QuarkXPress®. Emphasis on advanced page layout. Introduction to formatting long documents. Use of multiple master pages; building color pages. One lecture and one laboratory per week. Lab fee. Prerequisite: GRAPH 253 or permission of the instructor.

MDIA 154 2 A
WWW Portfolio Development
A unique approach to development of dynamic personal portfolios for persons in all disciplines. A practical guide to what to include; how to design, update in all disciplines. A practical guide to what to include; how to design, update.

MDIA 155 2 S
Broadcast Production I-II-III
A three-part series in the technical and practical aspects of multi-camera production using professional broadcast equipment. Theory, use and function of broadcast equipment including setup, maintenance and operation. Includes extensive hands-on experience in various production environments including studio and local live events. Prerequisite: MDIA 153.

MDIA 255 3 W
Nonlinear Editing
Instruction and experience in logging, digitizing, editing, and preparing footage for exhibit using current industry-standard nonlinear editing systems. Focuses on understanding and using the computer-based nonlinear editing tools, with consideration given to the art of making the edit. Computer proficiency required. Prerequisite: MJRA 158.

MDIA 258 3 S
Motion Graphics and Effects
Use of the latest desktop video graphics and effects software in creating motion graphics and composing them on video. Prerequisite: GRAPH 257, 352.

MDIA 331 3 A
Elements of Cinema
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 visions of the medium. Introduction to roles and responsibilities involved in a career in motion-picture technologies.
Documentary Production I
MDIA 432 3 W
Introduction to Screenwriting
(See ENGL 346.)
Foundationals 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. Students produce one act of a feature-length screenplay. Prerequisite: ENGL 102. Even years.

Digital Video Distribution
MDIA 355 3 S
An exploration into the evolving world of digital distribution from interactive DVD-ROM development to World-Wide Web progressive multidata rate download and streaming video. Different compression algorithms are compared and evaluated. Computer proficiency required; Adobe Photoshop experience desirable.

Documentary Production II
MDIA 433 3 S

Digital Film Production I
MDIA 452 3 A
In this series the student creates his or her own short digital film. This first course of the series involves conception and writing the script, preproduction planning and organizing in preparation for production. Must be taken in sequence with MDIA 453, 454. Prerequisites: MDIA 231, 241, 256, 258, 331, 346.

Digital Film Production II
MDIA 453 3 W
Production and rough-cut of the student's film created in MDIA 452. Must be taken in sequence with MDIA 452 and 454.

Digital Film Production III
MDIA 454 3 S
Completion of the short digital film done in MDIA 452, 453. “Picture-lock,” addition of sound effects and music, digital enhancement of image quality for final distribution. Must be taken in sequence with MDIA 452, 453.

Professional Digital Media
MDIA 451 1 S
Final preparation for entry into the job market. Polishing the demo reel, preparing the resume, business cards, etc. Survey of the job market and available opportunities. Lectures, discussion, field trip. All major courses should be completed or final ones concurrent with enrollment in this course.

General Courses

Lower-division course:
TECH 291 1-6 A, W, S, Su
Internship
Planned, coordinated, and supervised work experience in an industry allied with the student’s technical areas of concentration. A minimum of fifty hours of verified work experience for each hour of credit. S/F basis. For instructions and requirements, see department chair before registering.

Upper-division courses:
TECH 491 3-6 A, W, S, Su
Professional Digital Media
Continuation of TECH 291. A minimum of fifty hours of verified work experience required for each hour of credit. Repeatable to a total of 12 hours. In-Progress (“IP”) grading. For instructions and requirements, see department chair before registering.

TECH 492 1-3 A, W, S
Independent Project
Projects selected in any area in which a student desires greater depth of study. Requires approval of major adviser. Maximum of three hours credit in any one quarter; maximum of six hours credit (for TECH 492 and/or TECH 495) in any single program. Proposals must be received before the quarter of registration begins. See department chair for instructions.

Upper-division courses:
TECH 493 3 W
Technology, Society and Culture
Current, historical, and future issues and their relationship to technology and systems in various world cultures. Emphasis on explaining technological behaviors and on showing how technology permeates all of human affairs.

TECH 495 1-3 A, W, S
Independent Study
Projects selected in any area in which a student desires greater depth of study. Requires approval of major adviser. Maximum of three hours credit in any one quarter; maximum of six hours credit (for TECH 492 and/or TECH 495) in any single program. Proposals must be received before the quarter of registration begins. See department chair for instructions.
Since the majority of adult students in the degree completion program will be transferring nearly two thirds of their credits from other institutions, PUC has a specific general education program for these students. Articulation agreements with area community colleges define acceptable courses in other institutions that will meet PUC’s general education requirements. Students must satisfy the minimum general education requirements described below prior to graduating.

I. Foundations of Learning (15 credits):
The essential basis for participating in the community of learning includes the ability to do critical analysis of presentations in various forms. It includes the ability to make clear, accurate, and forceful presentations, both written and spoken, including those that employ statistical methods.

1. Rhetoric and College Writing: ENGL 101-102 College English (4-4) or equivalent course
2. Oral Communication: This requirement may be met by any transferable speech or public speaking course.
3. Reasoning from Data: Emphasis on the critical reasoning skills necessary for accurately understanding and appropriately using statistical data. MATH 222-Introduction to Statistics (4) or an equivalent course satisfies this requirement.

(As with most other institutions of higher education, PUC requires competence in Algebra as a prerequisite to admission into its college-level statistics course. This requirement can be met by the remedial course MATH 096 or equivalent.)

II. Human Identity in Cultural Contexts (12 credits):
Insights into the identities of individuals, peoples and cultures are gained through courses that describe and explain
philosophical and historical developments, social contexts, and psychological conditions.

1. Historical Contexts (8): Emphasis on major developments in the civilizations of the world. This requirement may be met by any two transferable college history courses.

2. Social Sciences (4): At least one four-unit course from anthropology, philosophy, economics, geography, political science, psychology, or sociology. This requirement is met in the BSM program by economics, in the ECE program by psychology, and in the TCP by several of the required prerequisite courses.

III. Insights of the Imagination (8 credits): Courses in this category explore the artistic expression of ideas, values, and emotions. At least two courses, in two different areas, are required:

- 1. Literature
- 2. Visual Arts
- 3. Music

(4 credits toward the literature requirement are provided within the ECE program. All of this requirement is met by the prescribed prerequisite courses in the TCP.)

IV. The Natural World (4 credits):

Inquiry into the nature of science. Courses in this category explore relationships between the sciences and other realms of human thought, including culture, philosophy, history, and ethics, considering both the benefits and the limitations of science and technology. At least one four-hour laboratory course in natural science is required. This may be in astronomy, biology, chemistry, geology, physics, or a comparable area.

V. Revelation, Belief, and Action (8 credits):

Courses in this section explore the nature, forms, and uses of belief; the relationship between Christian belief and revelation; and the applications of belief to life, emphasizing Christian expression of faith in service. This requirement is fulfilled by courses offered as part of the degree completion programs: Biblical Perspectives (RELB 305, Ethics (RELT 310 or BIOL 355), and/or Philosophy of Biology (BIOL 355).

VI. Health and Fitness (2 credits):

Comprehensive, balanced education includes acquiring and using the accurate knowledge and developing skills and habits that help sustain a sound mind in a sound body. This requirement is fulfilled by a minimum of one course from the areas of nutrition, fitness, or health education.

VII. Skills for Daily Living

Since the students in the CAPE program are independent working adults who have demonstrated their ability to succeed in the work world, this requirement is waived.

Bachelor of Science in Management, B.S.M.

This major and these courses are available only through CAPE’s Degree Completion Program. The degree completion curriculum in Management builds on personal experience and previous college credit. The program is tailored to the needs of working adult students. Classes meet one evening a week for four hours and are tailored for a mature, interactive learning style. Qualified applicants are at least 23 years old and transfer at least 90 quarter (60 semester) credits of previous college course work that can apply toward general education and elective requirements. The Management curriculum is a series of upper division courses that together last 20-23 months.

➤ Requirements: a minimum of 61 hours including the following:

- MGT 320 The Legal Environment of Business 4
- MGT 330 Economics for Managers 4
- MGT 340 Principles of Marketing 4
- MGT 350 Data Presentation 2
- MGT 375 Group and Organizational Behavior 3
- MGT 390 Organizations and Environments 3
- MGT 410 Accounting for Managers 5
- MGT 420 Management 4
- MGT 430 Human Resources Management 4
- MGT 450 Financial Management 5
- MGT 490 International Business 4
- MGT 491 Strategic Management 4
- RELB 305 Biblical Perspectives 4
- RE LT 310 Ethics and Personal Values 4

A minimum of 7 hours from the following:

- Entrepreneurship Courses:
  - MGT 434 Entrepreneurship (3)
  - MGT 477 Electronic Commerce (4)
- Public Administration Courses:
  - MGT 456 Urban Planning (3)
  - MGT 460 Fiscal Administration (4)
- Information Systems Courses:
  - MGT 380 Database Analysis and Design (3)
  - MGT 482 Systems Analysis and Design (4)
  - MGT 486 Information Systems Management (3)
  - MGT 487 Management Science (4)

Bachelor of Science in Early Childhood Education, B.S.E.C.E.

This major and these courses are available only through CAPE’s Degree Completion Program. The degree completion program in Early Childhood Education is designed to build on past experience and previous college credit. The program is geared to the needs of adults employed in the field of early childhood care and education, with class sessions, tailored for a mature, interactive learning style, convening one evening a week for four hours.

The Early Childhood Education curriculum is a series of upper division courses that together last approximately 20-22 months.

➤ Requirements: a minimum of 60 hours including the following core courses:

- ECE 311 Young Children’s Developmental Scale 4
- ECE 330 Literature for Children 4
- ECE 335 Exceptional Children 4
- ECE 365 Parent/Child Relationships 4
- ECE 380 Infant/Toddler Programs 4
- ECE 383 Play and Environments 4
- ECE 384 Healthy Child Care 2
- ECE 386 Diversified Early Childhood Programs 2
- ECE 388 Science for the Young Child 4
- ECE 389 Behavior Management and Observation 4
- ECE 425 Adult Supervision and Management 4
- ECE 431 Administration and Supervision I 4
- ECE 432 Administration and Supervision II 4
- ECE 460 Curriculum and Assessment of Young Children 4
- RELB 305 Biblical Perspectives 4
- RE LT 310 Ethics and Personal Values 4

➤ Required cognate courses:

An approved course in nutrition (3)

Word processing (0-3)

This requirement may be met by completion of an approved course in word processing or by satisfactory performance on an approved waiver examination.

Preliminary Multiple and Single Subject Teaching Credential Programs

The Teacher Credential Program (TCP) offered through CAPE is designed specifically for adults who already hold a bachelor’s degree. The schedule allows individuals to meet State of California credentialing requirements while maintaining a day job. The program consists of course work, field experiences, and assessments approved by the California Commission on Teacher Credentialing.

Cohorts begin in August and are scheduled for one night per week for 22-27 months depending on the program. Credential candidates seeking an add-on credential may also be allowed to take needed courses without following the entire sequence. Entry in this mode is subject to space available in the cohort and approval of both the CAPE program and the Education department.

➤ Prerequisites to Program Admission:

1. Bachelor’s degree from a regionally accredited college or university.
2. Cumulative GPA of at least 2.5
3. Passage of CBEST
4. Passage of, attempt of, or registration for subject matter competency exams, or completion of an approved subject matter program of study
5. Verification of entry level computer skills
6. Criminal record clearance verified through a Certificate of Clearance, Emergency Permit, or Child Development Permit
7. Satisfactory recommendation
8. Satisfactory department review

➤ Procedure for Program Application and Admission

1. Submission of all application paperwork to CAPE office.
2. Personal interview with the Credential Analyst in the Education Department to discuss program requirements and schedule of classes, and to answer applicant questions.
3. Consideration of application by Education Department faculty.
4. Written notification to applicant of department decision.

### Credential Program Coursework and Field Experience

**Requirements for both Multiple Subject/Elementary and Single Subject/Secondary Candidates**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>EDUC 100</td>
<td>Classroom Observations</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 101</td>
<td>Introduction to Teaching</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 238</td>
<td>Computer Technology for Teachers</td>
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<td>EDUC 238L</td>
<td>Computer Technology for Teachers Lab</td>
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<td>EDUC 333</td>
<td>Educational Psychology</td>
<td>3</td>
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<td>EDUC 335</td>
<td>Ethical Dimensions of Teaching and Learning</td>
<td>2</td>
</tr>
<tr>
<td>EDUC 336</td>
<td>The Multicultural Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 350</td>
<td>Exceptional Children in the Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 480</td>
<td>Classroom Management</td>
<td>2</td>
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<td>ENGL 335</td>
<td>Survey of Linguistics</td>
<td>4</td>
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<tr>
<td>ENGL 337</td>
<td>ESL Teaching Methodology</td>
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<tr>
<td>HLED 166</td>
<td>Health Education</td>
<td>2</td>
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**Lesson Planning Seminar (taken at time of first methods course)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
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The college seeks through various means to measure its educational effectiveness in fulfilling its mission. All students are required to participate in assessments to measure outcomes.

The following are currently used for assessment purposes in the Teacher Credential Program:

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### Degree-Completion Courses: Management

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<td>MGT 330</td>
<td>Economics for Managers</td>
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</tr>
<tr>
<td>MGT 335</td>
<td>Organizational and Environmental Sciences</td>
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<td>MGT 340</td>
<td>Principles of Marketing</td>
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<td>MGT 350</td>
<td>Data Presentation</td>
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<td>MGT 375</td>
<td>Group and Organizational Behavior</td>
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<td>MGT 420</td>
<td>Management</td>
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<td>MGT 430</td>
<td>Human Resources Management in Public and Private Sectors</td>
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#### Additional requirements for Single Subject/Secondary Candidates

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International Business (MGT 456)

- Urban Planning
  - Ideological, political, legal, economic, social factors, and interest groups and how they interact with and affect planning for primarily urban environments.
  - Underlying forces for growth and change; who benefits and who loses.
  - Includes legal and social issues in planning, housing, homelessness, traffic, zoning, urban renewal, economic development, energy planning, and land-use planning.

- Financial Administration (MGT 460)
  - Financial administration and activities of public agencies.
  - Includes principles of public finance, budgeting, revenue sources (including tax structures), revenue forecasting, debt administration, and fund management.

- Electronic Commerce (MGT 477)
  - Tools and technologies needed for participating in electronic commerce.
  - Business opportunities, challenges, and strategies for leveraging the emerging technologies and information infrastructure.
  - Security, privacy, ethics, and business practices.

- International Business (MGT 480)
  - Introduction to and summary of doing business in the international marketplace.
  - Includes globalization, political economy, trade theory, investment in foreign countries, and global monetary systems; and entry, organizational strategies and business operations in the global environment.

- Systems Analysis and Design (MGT 482)
  - Concepts, skills, methodologies, techniques, tools, and perspectives essential for systems analysts to successfully develop information systems.
  - Includes project identification and selection, project initiation and planning, analysis, logical design, physical design, implementation, and maintenance.

- Information Systems Management (MGT 486)
  - An overview of information systems in organizations.
  - Strategic issues, organizational structure for information systems (IS), ethical and societal issues.
  - Also includes hardware and software for business, data organization, telecommunications and networking, inter- and intranet, and IS system types in various organizations.

- Management Science (MGT 487)
  - Quantitative methods for managerial decision-making.
  - Includes linear programming, integer programming, decision-making under uncertainty, utility theory, waiting line and inventory models, simulation, transportation and assignment problems.

- Strategic Management (MGT 491)
  - A capstone course integrating knowledge and theories from a variety of business disciplines; applications to a study of organizational problems, primarily through the case method.
  - Prerequisites: MGT 320, 330, 340, 350, 375, 390, 410, 420, 430, 430.

- Religion and Business Operations in the Global Economy (RELN 305)
  - Designed to foster knowledge and understanding of those historical concepts and themes of the Bible that relate most directly to effectiveness in business practices and public life.

- Ethics and Personal Values (RELN 310)
  - Examination of how personal values in business and public life are shaped by world views, ethics, and spiritual formation.

- Exceptional Children (ECE 359)
  - Assessing children with such exceptions to “normal” as mental retardation, giftedness, emotional disturbance, speech, visual, and hearing problems.
  - Includes handicaps and learning disabilities.

- Parent/Child Relationships (ECE 365)
  - Issues in parenting and child-rearing in today’s society.

- Infant/Toddler Programs (ECE 360)
  - The environment, curriculum, and management of infant/toddler programs.
  - Includes observation of children between six months and three years of age.

- Art and Creative Activities (ECE 382)
  - The creative and aesthetic development of young children: art, music, movement, and drama.

- Young Children’s Developmental Speech (ECE 371)
  - Normal development of speech and language in children from birth to age six.
  - An introduction to differential language diagnosis and treatment planning for children with delayed language development.

- Young Children’s Developmental Speech (ECE 330)
  - Emphasis on literary quality and a broad knowledge of the best that has been written for children.
Pre-Session Student Teaching: This is an "add-on" in the classroom and technology is used to distinguish between technology as an add-on in teaching and learning, and to comprehend meaning through art as it relates to intermediate reading/language arts instruction. Includes instructional strategies for developing ability to transform teaching to diverse groups of students. The course is intended to assist future teachers in developing their own management plan based on a review of the "best practice" models already being used successfully at various educational levels. Prerequisite: Preliminary program admission.

Elementary Methods Coursework

EDUC 345 Teaching Math and Science in the Elementary School
Through integrated activities in classroom and fieldwork, this course addresses the preparation of pre-service elementary teachers in science, health, and mathematics instruction. California state content standards in science, health, and mathematics are emphasized, as are the planning and implementation of effective lessons for each area. Prerequisite: Regular program admission. Concurrent enrollment: EDUC 482L-Math Field Experience.

EDUC 350 Exceptional Children in the Classroom
Introduces prospective teachers to the major categories of disabilities and giftedness, and provides strategies to meet the needs of these children in the general classroom. Students gain information about federal and state laws pertaining to disabilities and how to write and implement IEP.

EDUC 353 Beginning Reading and Writing
A balanced, comprehensive approach to teaching reading and writing in pre-kindergarten through grade three, including research on how children learn to read, diagnosis of reading difficulties, phonics, stages of writing development, and planning and delivery of appropriate teaching and writing instruction based on assessment and evaluation. Emphasis on early prevention of failure in teaching reading and writing to at-risk children. Prerequisites: Regular program admission, EDUC 356. Concurrent enrollment: EDUC 482L-Beginning Reading Field Experience.

EDUC 408 Social Studies and the Arts
Develops the social studies and art-related topics and strategies for developing ability to transform teaching to diverse groups of students. Includes grade teaching and state standard aligned instruction. Prerequisite: Regular program admission.

EDUC 383 Student Teaching Seminar
Presents and discusses topics of current interest to students, such as classroom discipline, time management, comparative teaching styles, staffing issues, administrative and parent relationships, and other topics related specifically to the student teaching experience. Prerequisite: Concurrent enrollment: EDUC 482L-Student Teaching, Full-Time, Elementary, or EDUC 485L-Student Teaching, Full-Time, Middle/Secondary.

EDUC 390 Teaching K-12 Bible
A course designed to develop teaching objectives, materials, and strategies in Biblical education. Emphasis is given to methods of teaching whereby Bible curricula can be harmonized with the spiritual development of the K-12 student. Facilitation of the spiritual development of K-12 students is also emphasized. In addition, special interest is given to the exploration and analysis of the Seventh-day Adventist Bible curriculum. Required for candidates for the SDA teaching certificate.

EDUC 356 Intermediate Reading and Writing
A basic course defining the nature of language acquisition and the principles related to intermediate reading/language arts instruction. Includes instructional strategies for developing ability to transform teaching to diverse groups of students. Includes grade teaching and state standard aligned instruction. Prerequisite: Regular program admission.

EDUC 336 Ethical Dimensions of Teaching
Probes the ethical and moral situations that teachers and students face on a regular basis. The history and development of current practice are examined. Emphasizes core principles of Christian education and their application in seventh-century Adventist schools. Philosophy of American and Adventist education compared and contrasted. Emphasis on integrating faith and learning.

EDUC 333 Educational Psychology
The purpose of this course is to explore how children and adolescents learn 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.

EDUC 335 Computer Technology for Teachers Lab
Concurrent enrollment required in EDUC 238L.

EDUC 238L Computer Technology for Teachers Lab
Introduces 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.

EDUC 322L Social and Multicultural Education
Addresses the preparation of teachers for the wide diversity of students they will encounter in their classrooms. 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. Also emphasizes the knowledge and skills needed to help students be better informed and proactive in a multicultural society.

EDUC 322 Computer Technology for Teachers Lab
An introduction to the use of computers in the elementary and secondary classroom. The course is designed to develop skills in using technology to support teaching and learning, and to distinguish between technology as an "add-on" in the classroom and technology as an integral part of learning.

EDUC 100 Introduction to Teaching
Designed to provide a general overview of the teaching profession. The student will receive information on the history of education, teaching as a profession, and the characteristics of successful teachers. The program admission process begins in this class.

EDUC 333 Multiple Subject Education
An introduction to the use of computers 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.

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The purpose of this course is to explore how children and adolescents learn 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.

EDUC 101 Teaching, Full-Time, Middle/Secondary.
1-25 hour field experience that provides practical information about classroom teaching for more information.

EDUC 428L-Student Teaching, Math Field Experience
1-25 hour field experience is completed in an upper-grade elementary school classroom. It involves observing, assisting, and actually teaching in the area of math under the direction of an experienced elementary teacher. The experience counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisite: Regular program admission. Concurrent enrollment: EDUC 345, EDUC 482L-Student Teaching, Math Field Experience (1): This 25-hour field experience is completed in an upper-grade elementary school classroom. It involves observing, assisting, and actually teaching in the area of math under the direction of an experienced elementary teacher. The experience counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisite: Regular program admission. Concurrent enrollment: EDUC 345, EDUC 485L-Student Teaching, Full-Time, Elementary (13): The full-time student teaching takes place.

EDUC 480 Student Teaching, Elementary (13): The full-time student teaching experience occurs at the conclusion of the program. The experience lasts for 12 weeks, and is a full-time, full-day commitment. It is not possible for the student teacher to hold a day job during this experience. By the end of the experience, the student will have complete responsibility for all classroom management, instructional planning, and teaching. If the candidate is employed full-time during field experiences, must be completed in a K-2 classroom. It involves observing, assisting, and actually teaching in the area of beginning reading and writing under the direction of an experienced primary grade teacher. This experience counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisite: EDUC 356. Concurrent enrollment: EDUC 333.

EDUC 482L-Student Teaching, Full-Time, Elementary (13): The full-time student teaching experience occurs at the conclusion of the program. The experience lasts for 12 weeks, and is a full-time, full-day commitment. It is not possible for the student teacher to hold a day job during this experience. By the end of the experience, the student will have complete responsibility for all classroom management, instructional planning, and teaching. If the candidate is employed full-time during field experiences, must be completed in a K-2 classroom. It involves observing, assisting, and actually teaching in the area of beginning reading and writing under the direction of an experienced primary grade teacher. This experience counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisite: EDUC 356. Concurrent enrollment: EDUC 333.

Permit, at a grade level covered by the credential, then in-service student teaching may be requested from the Education Center Center for Continuing and Professional Education
Secondary Methods Coursework

EDUC 358 3

Literacy in the Content Areas
Examines the literacy skills that are essential for middle and secondary school students, including English Language Learners. Students explore instructional strategies for improving reading and comprehension of written materials in all content areas. In addition, students explore the process approach to writing with the goal of implementing effective writing assignments in all content areas. Prerequisites: Regular program admission, Sophomore class standing. Concurrent enrollment: EDUC 358L - Literacy Tutoring Experience.

EDUC 358L 1

Literacy Tutoring Experience
This experience involves 25-30 hours of tutoring a middle or high school student who is having difficulty with reading and language arts. Includes the application of tutoring strategies that have been developed in EDUC 358. The experience does not count as part of student teaching. Concurrent enrollment: EDUC 358.

EDUC 360 2

Introduction to Secondary Teaching Strategies
The first in a series of courses (including EDUC 361 and 262) designed to prepare pre-service teachers for the secondary classroom. Classroom management and lesson design are presented with adolescent characteristics in mind. Special emphasis is placed on issues related to human motivation. Prerequisites: Regular program admission, Junior or Senior class standing.

EDUC 361 2

Middle School Teaching Strategies
Examines middle school education (grades 6-8), emphasizing the need to respond in appropriate educational ways to the developmental characteristics of diverse young adolescents (ages 10-14). Students explore middle school learning, authentic assessment, block scheduling, and small schools alternating curriculum. Prerequisites: Regular program admission, EDUC 360, Junior or Senior class standing. Concurrent enrollment: EDUC 485L - Student Teaching, Middle School.

EDUC 362 4

Secondary Content Area Teaching Strategies
Addresses the preparation of single subject pre-service teachers to plan and deliver content-specific classroom instruction. State of California curriculum frameworks and/or academic standards are emphasized to help pre-service teachers understand the basic principles and primary values of their chosen discipline. Prerequisites: EDUC 360, EDUC 361, EDUC 485L - Middle School Field Experience, Junior or Senior class standing. Concurrent enrollment: EDUC 485L - Student Teaching - Senior High.

EDUC 370 2

Teaching K-12 Bible
See description under "Elementary Methods Coursework".

EDUC 483 1

Student Teaching Seminar
See description under "Elementary Methods Coursework", EDUC 383.

EDUC 485L 1-18

Student Teaching, Middle and Senior High School
Student teaching is divided into four components:
1. EDUC 485L - Student Teaching, Middle School Field Experience (1): This experience involves 25 hours of observation and teaching in the specific content area of the credential in a middle school classroom (grades 6-8). This experience counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: Regular program admission, 50% of subject matter program or passage of CSET. Concurrent enrollment: EDUC 361.
2. EDUC 485L - Student Teaching, Senior High School Field Experience (1): This experience involves 25 hours of observation and teaching in the specific content area of the credential in a senior high school classroom (grades 9-12). This course counts as 1 hour of Student Teaching and is supervised and evaluated. Prerequisites: EDUC 485L - Middle School Field Experience, 50% of subject matter program or passage of CSET, Departmental Review #1, Concurrent enrollment: EDUC 485L.
3. Pre-Session Student Teaching: This is a two-week experience at the beginning of a school year. It 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. Prerequisite: Completion of the middle and senior high school short-term field experiences. Pre-Session Student Teaching should be completed in the summer prior to the year in which full-time student teaching takes place.
4. EDUC 485L - Student Teaching, Full-Time, Middle or Senior High School (13): The full-time student teaching experience occurs at the conclusion of the program. The experience lasts for 12 weeks, and is a full-time, full-day commitment. It is not possible for the student teacher to hold a day job during this experience. By the end of the experience, the student will have complete responsibility for all classroom management, instructional planning, and teaching. Prerequisites: EDUC 358, 358L, 360, 361, 362, 480, ENGL 337, EDUC 485L - Middle School Field Experience, EDUC 485L - Senior High Field Experience, Departmental Review #2, Pre-Session Student Teaching.

ENGL 337 4

Survey of Linguistics
Survey of 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 337 4

ESL Teaching Methodology
Overview of current methods of teaching English as a Second Language. Concentrates on practical, innovative techniques that foster development of the ESL student's listening, oral language, pronunciation, grammar, reading, writing, and vocabulary.

MATH 211-212 3-3

Foundations of School Mathematics I-II
The logic and structure underlying school mathematics. Concepts, procedures, problem-solving techniques, and applications at concrete, pictorial, and abstract levels.

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. Prerequisite: MATH 211.
PUC CyberCourses is the door to Pacific Union College's growing number of Internet-based courses. A changing and expanding list of available courses is included in the website (http://cybercourses.puc.edu/)

Registration for students not currently enrolled at PUC is online. (Currently enrolled PUC students register through Lantern.) All courses are for full college credit.

Anyone may register for a course through PUC CyberCourses. There are no admission requirements, no transcripts required, and no long application forms to fill out. But, though enrollment is not restricted, students should keep in mind that the courses are for college credit. Satisfactory completion of a course requires the same aptitude and dedication that success in on-campus college courses requires.

People who might benefit from enrolling in PUC CyberCourses include the following:

- Those seeking professional development
- Degree students at other institutions needing transfer credit
- Student missionaries
- Secondary school students wanting to get an early start on college
- Adventist Colleges Abroad students
- PUC on-campus students (go to Lantern to enroll)
- Those wanting to take a course for personal enrichment

Credit is transferable to other academic institutions. Whether you choose to take a PUC CyberCourse for personal enrichment, professional development, or degree completion at another institution, any credits earned are transferable according to the guidelines of the academic institution to which the credit is being transferred. (Courses numbered below 100 are generally not accepted for transfer credit at other institutions.) If you are intending to apply credit to a major at another academic institution, you need to get in touch with your major adviser and the records office at that other school.

Recent and current offerings include freshman through senior level courses in a variety of fields including sciences, physical education, computer applications in business, English, and mathematics. The list of courses offered changes and is growing. Visit the PUC CyberCourses website for more information and a current list of available courses: http://cybercourses.puc.edu/.
Pacific Union College is incorporated under the laws of the State of California as a nonprofit 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.

**Room Reservation Fee**

A $150 room reservation fee is required of all residence-hall students prior to moving into the residence hall. To reserve a room for the coming year, both roommates must have paid this fee. The fee is refundable if a cancellation is received by September 1. No refunds are made for cancellations after September 1 or for failure to appear for registration.

If you are already in residence, you may designate a room preference before the end of the current school year, but no reservation will be made until the room reservation fee is received. Specific room assignments for new students are made on the basis of class standing and the date the fee is received.

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.

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**Financial Requirements For 2004-2005**

**Tuition — Quarter Fee Schedule**

The tuition rates reflect a charge of $520 per quarter hour up to 11.5 hours. Tuition for 12 to 17 hours is $5,978. All hours over 17 are charged at $394 per hour.

**Miscellaneous Fees**

- **ACT Residual Testing** $30.00
- **Application fee (first time only)** $30.00
- **Automobile campus registration fee:**
  - Community students, per year $15.00
  - Residence-hall students, per year $45.00
  - ($50 if billed to student account)
  - For each extra vehicle $3.00
  - For each extra motorcycle $3.00
- **Credit by exam recording fee** (per exam) $15.00
- **Exam fee (course waiver or credit by exam)** $25 per hour

**Examination Fees (standardized)**

Fees are charged to cover costs of such standardized tests as may be required by individual departments.

**Flight Training Fees** (See Flight Training Fees Section)

**Laboratory:** Fee varies with class. Breakage payment as circumstances may require

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**Late registration fee** $25.00
(Payable in cash when you register $35 if billed to your account)

**Lost residence-hall key or replacement** $20.00

**Lost student I.D. or replacement** $12.00

**Private Music Lesson Fee** (see Music Charges)

**Nursing Fees** (see Nursing Fees)

**Senior Citizen (65 yrs. & older) Rates:**

- Non-Participation N/C
- Audit Credit $65 per hour
- Full Credit $90 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)** $35.00

**Technology Fee (Angwin Campus)** $40.00 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. **Exceptions:** Express Mail processing is $15; Federal Express is $20.

*Note: A supplement with financial information for 2005-2006 will be available in Spring 2005.*
Financial Information

Payment Information
Payment for the tuition, room, and board expenses is to be made by:

- September 15: Autumn Quarter
- December 15: Winter Quarter
- March 15: Spring Quarter

You may use your Visa, Mastercard, or Discover charge card to make your payment. To make arrangements, get in touch with your financial counselor.

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 office of Student Financial Services. Financial clearance is defined as completing a financial plan with the office of Student Financial Services and making the scheduled payment(s). A student who does not obtain financial clearance by 4:00 p.m. on the first day of classes for the current quarter will have their registration canceled. After clearing finances, a student may re-register until the last day to add classes.

Billing Procedure
As a student at PUC you have two accounts, your basic education account (which covers tuition, room and board) and your miscellaneous account (which picks up other charges through the year, such as meal costs in excess of the minimum, private music lessons for non-music majors, course-overload charges for each hour in excess of 17 hours, 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 Information

Financing College
The payment options listed below are available to students without financial aid. If you elect one of these plans, you should complete arrangements with your local financial counselor thirty days before the school term begins.

Tuition Guarantee Plan
Provisions of the Plan:
1. The tuition rate in effect during autumn quarter of your first contract will remain in effect until you graduate, provided that you maintain full-time, continuous registration. (Student misdiagnosions and Taskforce workers may be granted a one-year leave of absence.)
2. Prior to or on September 15, you must pay total estimated costs for the year.
3. Any cash draws void the contract.
4. As a participant in this plan you are eligible only the first year of participation for a 2% cash discount on the total estimated costs.
5. The SDA Tuition Discount is available when applicable.
6. Any money you earn from campus employment is paid directly to you. These earnings do not qualify as a reduction in the tuition to be paid.
7. Costs in excess of the total estimated costs paid will be billed monthly. You must pay them on a monthly basis.
8. 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.

The Tuition Guarantee Plan is available only to students without financial aid.

Cash Discount
Provisions of the Plan:
1. Cash discounts will be applied as follows:
   - 2% discount of the total advancement payment for each quarter in residence.
   - Cash discounts will be applied if total estimated costs, less SDA Tuition Discount (if applicable), are remitted by:
     - June 15 for Summer Session
     - September 15 for Autumn Quarter
     - December 15 for Winter Quarter
     - March 15 for Spring Quarter

   Any cash draws void the discount for that quarter.

Monthly Payment Plan
Provisions of the Plan:
1. After deduction of the advance payment, financial aid, and scholarships from the total estimated costs, this plan allows the remainder to 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.

SDA Tuition Discount
Provisions of the Plan:
A subsidy toward the operation of the College is provided by the Seventh-day Adventist Church. Therefore:

1. Seventh-day Adventist students receive a tuition discount of $780 for the year ($260 per quarter) for full-time students.
2. Three-quarter time students receive a discount of $585, and half-time students a discount of $190 for the year.
3. This discount is applied only to tuition charged at the rate of $520 per hour.
4. This discount is coordinated with other financial aid to fit into need determination.

Family Discount Plan
Provisions of the Plan:
1. 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 financial-aid programs is that you and your parents 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:

- College Costs: 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 to be repaid, loans, usually at favorable interest rates and with extended repayment periods; and part-time student employment.
- Parents’ Contribution: The amount parents are expected to contribute toward the cost of education.
- Family Contribution: A combination of parents’ contribution and student resources, such as savings or other assets, summer earnings, or G.I. Bill aid. For a married couple, spouses’ earnings would also be included in family resources. The family contribution is determined by the federal government.
- Financial Need: The difference between cost of attendance and the family contribution.
- Scholarships: Outright gifts awarded for academic excellence and promise.
- Grants: Outright gifts, based on financial need.
- Loans: Financial assistance which must be repaid, usually with favorable interest and long-term repayment schedules.

Independent Student: For federal and state financial-aid program purposes, you are considered independent if you:
- are 24 years of age or older or before December 31 of the award year,
- are a veteran of the U.S. Armed Forces,
- are an orphan or ward of the court,
- have a legal dependent other than a spouse,
- are married student, or
- are a graduate/professional student.

Free Application for Federal Student Aid (FAFSA): This form is used to determine your financial need. The FAFSA is available from PUC’s Student Financial Services Office, or at www.fafsa.ed.gov.

Financial Aid Application (FAA): PUC’s supplemental form to apply for financial aid. This is available at the PUC Student Financial Services Office.

Eligibility for Financial Aid
To be eligible for federal financial aid programs, you must:
1. be accepted to attend PUC to pursue a regular course of study toward a degree or certificate,
2. be a citizen of the U.S. or its Trust Territories, or have a permanent-resident visa, and
3. demonstrate financial need as determined by the FAFSA.

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

Financial Information

Estimate of Expenses
The following amounts represent the estimated cost of full-time attendance during the autumn, winter, and spring quarters of the 2004-2005 school year:

<table>
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<tr>
<th>Year</th>
<th>Each Quarter</th>
<th>Tuition &amp; fees*</th>
<th>Room and Board</th>
<th>Total</th>
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<tbody>
<tr>
<td>2005 school year</td>
<td>(12-17 hours)</td>
<td>$17,934</td>
<td>$5,978</td>
<td>$23,910</td>
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* For students enrolled for six credit hours or more, tuition and for charges include tuition, room, and board;
1. Technology fee
2. Residence-hall Rent
3. Minimum Board
4. Board and supplies
5. Books
6. Tuition
7. Fee
8. Summer Session
9. Spring Quarter
10. Winter Quarter
11. Autumn Quarter
12. Academic Excellence
13. Tuition Assistance Plan
14. Student Assistance Plan
15. Financial Services Office
16. Financial Aid Application (FAA)
17. Four Years
18. Full-Time Student
19. Bachelors Degree
20. Average
The Pell Grant is a limited grant. At the end of each quarter the student must complete 36 hours in three consecutive quarters. In calculating the grade-point average and evaluating progress toward completion of a degree:

- "I" (Incomplete) carries no grade points and is not entered in the grade-point average. An incomplete is not removed from the report card until the time the Incomplete is graded.

- "NR" (No Grade reported) carries no grade points and is not computed in the grade-point average. An NR is not removed by the evaluator. A grade of the following quarter becomes an "F" and is entered on the report card.

- "W" (Withdrawal) is not computed in the grade-point average, nor is the course considered to be completed satisfactorily.

A course repeated to improve the grade-point average is counted only once toward the total credit hours required for graduation. The original grade is not included in the grade-point calculation.

A maximum of nine quarter hours of remedial courses (001-099) is applicable toward the baccalaureate degree.

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 grade-point average 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 grade-point average 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 granted at part-time rates 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. PUC 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 PUC students. Credits earned prior to enrolling at Pacific Union College are not considered in 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 PUC 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, for the following quarter.

Financial Aid Suspension. If you do not make satisfactory academic progress, 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.

1. The Financial Aid Committee will review the appeal and determine whether the suspension is justified. You will be advised of the committee’s decision.
2. If you appeal the decision of the Financial Aid Committee, in writing, to the Grants, Loans, and Scholarships Committee, the appeal is approved and aid is reinstated for one additional quarter, you must:
   1. Begin the quarter with a minimum of 12 hours, complete at least 10 hours, and attain a GPA for the quarter of at least 2.000 and sufficient to bring the cumulative GPA to at least 2.000. 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 grade-point average.

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 consists of 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 the greatest financial need. An FSEOG award is automatically considered for students applying for financial aid through the FAFSA.

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 PUC students who are California residents are encouraged to apply to the California Student Aid Commission for state-funded grant assistance. To be eligible, you must be a California senior. An annual application is required for all grants. Applications are due by March 2 for the school term starting the following September.

Cal Grants. 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 CSAC. Both the FAFSA and the GPA Verification Form must be filed by March 2.

From the College

Honor Awards. Contact the Enrollment Services office for information about College-sponsored scholarships and honor awards.

The Student Financial Services office coordinates but does not determine these 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. If you are offered a loan you may accept it, reject it, or accept a portion of it. You must complete the Financial Information checklist, which is available to full-time students only. You may also have a Federal Stafford, Federal Perkins, and/or College Loan.

Federal Stafford Loan Program. The most common type of loan for undergraduate students is the Subsidized Federal Stafford Student Loan, provided by such lending institutions as banks, savings and loans, and credit unions, and guaranteed by the federal or state government. To qualify, you must be either a citizen or permanent resident enrolled at least half-time and have completed the financial aid application process.

The interest rate is variable. Repayment begins six months after you complete college or drop below half-time attendance. The lender determines the repayment schedule. Borrowing limits are $2,625 for freshmen, $3,500 for sophomores, and $4,000 for juniors and seniors. Insurance and loan origination fees are charged by the lender. If you have an outstanding financial need, you may apply for the Unsubsidized Federal Stafford Loan. The application process, interest rate, and loan amounts are the same as for...
Financial Information

Financial Information

the Subsidized Federal Stafford 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. Federal Stafford Loans are not responsible for interest accruing for the subsidized loans.

Parent Loans for Undergraduate Students (PLUS). A PLUS loan is a federal loan with a variable interest rate 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 origination. If a parent intends to use PLUS to cover the entire cost of education, the Student Financial Services office must have indication from the lender that the parent loan has been approved. Otherwise the parent is expected to make the required payments for financial clearance.

Federal Work-Study Program. 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 beginning 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 referring to collection agencies when a loan account is in default.

Self-Help: Student Employment

PUC Employment. Many students work at the College to defray part of their school expenses by working an average of 15-18 hours per week in such service and industrial departments as Custodial Services, Dining Commons, Public Safety, Landscape, and Physical Plant. There are employment positions as secretaries and readers in academic departments or as residence hall assistants.

The current levels of earnings are as follows:

<table>
<thead>
<tr>
<th>Hrs./Wk.</th>
<th>Rate/Hr.</th>
<th>Income/Yr.</th>
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<tr>
<td>5</td>
<td>$6.75</td>
<td>$3,037</td>
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<tr>
<td>10</td>
<td>$6.75</td>
<td>$6,075</td>
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</table>

Although your potential student earnings may be included in your financial aid award letter, the College cannot guarantee how much you will earn.

Campus employment is arranged through the Student Employment office in financial need. 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 coursework (except during the summer).

Electronic time cards are used for recording hours worked. Student workers are paid by check or by electronic funds transfer every two weeks. Department heads 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 the and/or church expense offerings be deducted from your paychecks.

Federal Work-Study Program. If you are eligible, 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 must withdraw from the College, must consult with your financial counselor regarding the effect on your financial aid. Financial aid is posted directly to student accounts. The practice of 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.

Financial aid is posted directly to the student account. Grant aid is handled entirely by the College and is posted directly to individual accounts.

Thus, if your award letter from the PUC Financial Aid Office indicates that you qualify for a Cal Grant, you will receive a Student Aid Report (SAR) in three parts.

1. Federal Pell Grant
2. Federal Supplemental Educational Opportunity Grant
3. Cal Grant/PUC Scholarships/Tuition Assistance
4. Loan (Federal Stafford Student Loan, Federal Perkins Loan, or Collegiate Loan)
5. PUC Campus Grant

PUC Grant

PUC Campus Grant

Thus, if your award letter from the Student Financial Services office includes a PUC 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 PUC scholarship awards to fit into your FAFSA need figure.

Special Programs

Special programs are designed to help specially-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 Veterans Administration or the Veterans Coordinator at PUC.

State Aid to the Physically Handicapped. Generally the Bureau of Vocational Rehabilitation (BVRA), the California Department of Education, and the State of California provide financial assistance to students who have physical disabilities. This assistance may include a substantial 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.
2. Send signed copies of 2003 Federal Tax returns and W-2’s to the Student Financial Services office, if requested.
3. Request a Federal Pell Grant.
4. Send signed copies of 2003 Federal income-tax returns and W-2’s to the Student Financial Services office.
5. Apply for admission to the College.
6. Fill out the FAFSA.
7. Send signed copies of 2003 Federal income-tax returns and W-2’s to the Student Financial Services office.
8. Complete the FAFSA.
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Financial Information

school, or return to PUC 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 Federal Stafford Student Loans, but you must contact the lender for the proper paperwork. 8. Completion of a two-year associ- 

date degree or a four-year baccalaureate degree is based on an average of 16 hours of course work per quarter. Since you may take as few as 12 hours per quarter and still receive full aid, that aid could terminate your eligibility to receive your degree requirements if you average fewer than 16 hours per quarter. 9. Although you may take half- or one-quarter course loads, if you are receiving financial aid it is to your advantage financially to take a full academic load (average of 16 hours per quarter). This is so because it costs no more to take 17 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 Re- 
ductions office.

The amount of tuition refund to stu- 
dents 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 third school day of the quarter - 100% refund; 2. Sixthteenth school day of the quarter - 50% 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 cor- responding reduction must be made in financial aid that you may have received. (You may get a copy of the policy on specific aid refund procedures from the Student Financial Services office.) Your account will be charged for the reduction in financial aid.

To be certain that all charges and cred- its 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 Coordinator at the Financial Services office at the time of application to the College. The Veterans Coordinator, who maintains liaison between veterans and the VA, will supply the appropriate forms and will make proper arrangement with the VA.

To request loan or assist arrangement with the VA, veterans may have an advance payment check available on registration day. Monthly payments are made directly to the student during the first day of each month. Veterans are required to follow the regular payment plan as listed for other students. For further information, see the section entitled "Services for Veterans" in this catalog.

International Students

International students are required to pay all costs for the upcoming quarter in advance. An additional $150 is required for 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 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 the Finance Guarantee Form accompanied by a bank statement, which will be sent at the time of application. Further information is available from the Student Financial Services office.

Insurance for International Students

Because of the cost of medical care in the United States is high in comparison to costs in other countries, all interna- 
tional students must have and maintain major medical insurance coverage while attending Pacific Union College. This insurance must have minimum coverage of at least $100,000. 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 in- surance policy. You will be expected to meet 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. Se- vere penalties are imposed on the owner and driver of an uninsured vehicle should an accident occur. The International student advisor at Pacific Union College can provide information about purchasing automobile insurance.

Food Service

The Food Service 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 Com- 
moms. The quarterly minimum charge for board is $680.

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 Food Ser- 
vice. You may be asked to deposit a portion of your ID card is charged for use in the Dining Commons.) All meal charges must be paid by the end of the next bill- 
ing cycle.

Residence Halls

Pacific Union College affirms the val- ues to be gained from being primarily a residential college. Most students live in one of the seven gender-exclusive resi- dence halls. Four women’s residence halls can accommodate approximately seven hundred students; three men’s halls, ap- proximately six hundred. For acceptance, you must be an unmarried student aged 22 or younger who you agree to live in a residence hall un- less 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 $130 room reservation fee. Room as- signments 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 PUC, your full room reservation fee will be refunded, provided you notify your residence hall dean of your wish one week before you are scheduled to move in.

The standard room rate is $1,032 per quarter for double occupancy in each residence hall. When a student can be ac- commodated 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 $516 per quarter.

If 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 occu- 
pency 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 $25 key charge will be placed on your account.

Charges made to your long-distance telephone number cannot be billed on your monthly statement. (See "Telephone Information" in the STUDENT LIFE AND SERVICES section of 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.

Health Service

Pacific Union College does not provide a primary insurance plan for students. It is your responsibility to have a primary insurance plan in place when you enroll. Health Services can provide information regard- ing primary plans you may wish to con- tact.

In the event of an accident, it is your responsibility to contact the health ser- 
dvice department. Accidents must be reported through fitness center unless the injury is an emergency needing immedi- ate care from an emergency room. In this case, notification is needed as soon as the

Apartments

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 ar- eas, applicants must be taking a regular course load and complete a minimum of 8 hours of work class with a GPA of 2.0 or above each quarter.

The Court Place apartments include fourteen one- and three-bedroom duplex units with four cabins. Brookside Park includes forty one- to three-bedroom apartments with two units per apartment. A nonrefundable deposit information about housing for married students or single parents is available from the Office of Student Services, Pacific Union Col- 
lege, 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 for it with your personal insurance carrier.

204

205
Financial Information

Patient is treated and stable for the College to consider being a payer of outside services. All outside services without the prior authorization from health services staff will be the financial responsibility of the individual. (Please refer to our exclusion list on our website located at pac.edu/Departments/Health_Service.)

Students are able to receive financial assistance with funds set aside by the College to help with the balance owed after your primary insurance has been billed and paid.

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.

Late Registration Fee

A late registration fee of $25 is assessed for failure to complete registration on time. This fee is paid to the Registrar in cash before you are considered fully registered. An additional statutory penalty charge is charged if you do not pay at the Records office.

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 Pacific Flyer Flight Center. Expenses for both 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 $2,000 per year, in addition to tuition, for flight laboratory fees. (If there is a significant change in the cost of fuel, insurance, etc., rates may be adjusted during the school year.) Because of reduced tuition for summer courses, one-half tuition credit is applied to the flight account for instruction during the summer session. If you already have certain FAA certificates and wishes to receive academic credit for them, there is a per-course recording fee. (See also “Credit by Examination” in the ACADEMIC INFORMATION AND POLICIES section.)

Music Charges

Private music lessons are offered on either a credit or no-credit basis. On a credit basis, all students except music majors and minors are charged the normal tuition charge as well as a private music lesson fee of $200 per credit hour. Fee waiver. The private music lesson fee will not be charged to those majors and minors who are enrolled in Theory (MUTH 121-122-123) or who have already taken these courses and are continuing to enroll in courses normally expected of majors and minors. This fee waiver normally applies only to the required number of hours of those lessons necessary to fulfill the degree requirements.

Private Music Lesson Fees Per Quarter

With credit:
Each credit hour of lessons $200 (tuition additional)
Without credit:
Each half-hour series of lessons $300
Each credit hour is based upon a minimum of nine one-half-hour private music lessons per quarter. Lessons missed because of a student’s irregular attendance may not be made up. If a student withdraws within the first two weeks of the quarter, the refund is prorated after that; however, no refunds are made. Students enrolling as members of music organizations or ensembles register on a credit or audit basis. A limited number of ensemble scholarships are available through the music department for students who incur overload tuition charges as a result of enrolling in one of these courses.

Nursing Fees

A.S. Program, First Year:
NURS 121 (Nursing I): $120
NURS 124 (Nursing II): $75
NURS 125 (Nursing III): $65
In addition, see the Nursing section of this catalog for information about the application fee and premium for malpractice insurance.

A.S. Program, Second Year:
NURS 221 (Nursing IV): $50
NURS 222 (Nursing V): $50
NURS 252: $50
NURS 253: $50
NURS 254: $50
NURS 262: $35
B.S.N. Program:
NURS 394: $35
NURS 432: $35
NURS 462: $35
These fees cover Skills Lab equipment costs, ID badge, malpractice insurance, graduation nursing pin, and the initial testing and evaluation for the national tests given across the program. Nursing fee charges are generated when one registers for a course. Repeating a course, therefore, will also generate these fees.

Shining Fees

For current rates, inquire at the Exercise Science department at registration time. Recently the charges have been in the $200-250 range.

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.

Graduation in Absentia

It is expected that all graduates will participate in the commencement services unless granted written permission by the Records office to be graduated in absentia. Written application for exemption should be made not later than one quarter prior to commencement. Permission is granted only in instances of obvious necessity. A fee of $25 is assessed any graduate who absents himself from graduation without permission.

Technology Fee

Students enrolled for one or more credits on the Angwin campus pay a $40 per-semester technology fee. Exceptions: Faculty and staff and students enrolled in such “off-campus” programs as degree completion, extended nursing, and extension courses.

Transcripts

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. Exceptions: Any unusual costs incurred for such special requests as “ rush processing” are added. Express Mail processing, for example, is an additional $15; Federal Express is $20.

I.D. Cards

Regular I.D. Cards provide identification for the following purposes: Dining Commons purchases, use of the College Library, transactions at the Business 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 Student 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.

College Bookstore

Books and supplies may be obtained at the College Bookstore on a cash basis. Purchases made with a personal check require two ID’s, one of which may be the PUB ID card, and the second a driver’s license or a DMV ID card. VISA, MasterCard, and the Discover card may also be used for Bookstore purchases. Students may not charge Bookstore purchases to their College accounts.

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 $15 charge per check. If the 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.

Banking and Security

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 kept in rooms or elsewhere on campus. Provision is made for students to deposit money for safe keeping at the business 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 on campus; students are invited to take advantage of its wide variety of financial services. An ATM is located at the SCL.
Pacific Union College Presidents

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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*
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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
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John W. Cassell, Jr. 1972-1983
Richard C. Osborn 2001-2008

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Multicultural Issues Adviser
Director of Student Activities/Creative Ministries
Associate Dean of Women
Assistant Dean of Women
Coordinator, Learning (dis)Abilities Program
Associate Professor of Religion.
Senior Writer/Editor
Director, Public Safety
Associate Director, Information Technology Systems and Services
Internet Services Assistant Director, Information Technology Systems and Services
Associate Director, Public Safety
Director, Land Management
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Director, Bookstore
Director, Custodial Service
Director, Flight Center
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Manager, Albion Field Station
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Associate Director for Public Relations, Art Director

Institutional Support Services
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Dale R. Seaton, B.S.E.

Director, Information Technology Systems and Services
Internet Services Assistant Director, Information Technology Systems and Services

Library
Adagwum Woruku, M.A., M.S.L.S.
Chair, Library Services and Reference Librarian
Joel H. Lutes, M.L.S.
Gary W. Shearer, M.L.
Linda E. Maberly, M.L.I.S.
Gilbert Abella, M.A., M.S.L.S.
Trevor J. Murtagh, M.A.

Auxiliary Enterprises and Services
Charlie E. Brown
Daniel A. Brown, B.S.
A. M. Fettes, B.S.

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Coordinator
Enrollment Counselor
Associate Director
Enrollment Counselor
Admissions
Associate Director
Enrollment Counselor

Director
Director
Enrollment Counselor
Director

Director, Executive Assistant
Director, Planning
Associate Director, Alumni and Development

Director, Public Relations
Office Manager
Senior Writer/Editor
Designer

Director, Associate Dean of Women
Head L. Bristol Lukowicz, B.S.

Judy Park, B.S.
Joseph G. Fallon, M.P.H., Professor Emeritus of Biology. B.A., Pacific Union College, 1938; M.P.H., Massachusetts Institute of Technology, 1944; Diploma in International Health, Royal Tropical Institute of Amsterdam and Leyden, University of the Netherlands, 1966, (1938)

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Donald R. Halzen, Ph.D., Professor Emeritus of Chemistry. B.A., Emmanuel Missionary College, 1957; M.S., Ph.D., Virginia Polytechnic Institute, 1961. (1959)

Donald V. Hemphill, Ph.D., Professor Emeritus of Biology. B.A., Pacific Union College, 1939; B.A., University of California, 1940; M.A., University of California, 1944; Ph.D., Oregon State College, 1952. (1946)


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Paul Stauffer, Ph.D., Professor Emeritus of English. B.A., Pacific Union College, 1941; M.A., Pacific Union College, 1944; Ph.D., Harvard University, 1952. (1942)


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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Evaline E. West, M.S.W., A.C.S.W., Professor Emerita of Social Work. B.S., Union College, 1957; M.A., Andrews University, 1962; M.S.W., San Diego State University, 1971. (1979)


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James Robertson, M.S., Associate Professor of Physics. B.S., Southern College of Seventh-day Adventists, 1991; M.S., Florida State University, 1994. (2003) 
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) 
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Terrence L. Trivett, Ph.D., Professor of Biology. B.A., Southern Missionary College, 1964; Ph.D., University of Oregon, 1969. (1968) 
Nancy L. Tucker, R.N., Ph.D., Professor of Nursing. B.S., Walla Walla College, 1970; M.S., California State University, Sacramento, 1990; Ph.D., Andrews University, 2000. (1986) 
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) 
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Joyce Wallace, R.N., M.S.N., Assistant Professor of Nursing. B.S., Walla Walla College, 1965; M.S., University of San Francisco, 1990. (1992) 
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Walter C. Utt Professors of History 
Lecturers 
Marlene Behr, M.A., Lecturer in Education. B.A., Union College, 1954; M.A., San Jose State University, 1970. (1990) 
Paul Crampton, M.A., Lecturer in Religion. B.A., Montemorelos University, Mexico, 1990; M.A., Montemorelos University, Mexico, 1992.
Personnel


Darlene H. Hemdren, D.D.S. Lecturer in Pre-Dentistry B.A., Loma Linda University, College of Arts and Sciences, 1968; D.D.S., Loma Linda University, 1972. (1996)


Liaisons and Supervisory Personnel in Agencies used for Clinical Nursing Experience

Nancy Aldred, R.N., M.S., St. Helena Hospital. B.S., Walla Walla College, 1974; M.S., Andrews University, 1981.

Marilyn Anderson, R.N., M.S., California Specialty Hospital. B.S., University of Michigan, 1988; M.S., Andrews University, 1995.


Helen Cortopassi, R.N., B.S., Memorial Hospital, Santa Rosa. B.S., California State University, San Diego, 1984.


Ann Marie Floyd, R.N., M.S., White Memorial Medical Center. B.S., University of San Francisco, 1972; M.S., Catholic University of America, 1985.

Louella Freeman, R.N., M.S.N., St. Helena Hospital. B.S., Loma Linda University, 1976; M.S.N., Loma Linda University, 1981.


Carolyn Koziak, R.N., M.S.N., Ukiah Valley Medical Center. B.S., Loma Linda University, 1974; M.S.N., Clarkson College, Omaha, 2001.


Vilma Raetig, R.N., M.S.N., White Memorial Medical Center. B.S.N., Southern Adventist University, 1970; M.S.N., Loma Linda University, 1974; M.E.A., University of Phoenix, 1986.


Contract Faculty in Nursing: Clinical and Theory Instructors


Beverly Reynolds-O’Keefe, R.N., M.S., Los Angeles/Hanford. B.A., California State University, 1979; B.S., California State University, 1982; M.S., California State University, Los Angeles, 1987.


Personnel

Personnel

Randy Storm, M.S.W., L.C.S.W., Simmons College, 1983.

Nick Velichinsky, M.S.W., ACSW, San Francisco State University, 1969.

Kruton Wagner, M.S.W., University of Chicago, 1992.

Claire Wren, M.S.W., University of California, 1970.

Maria Zuniga, M.S.W., California State University, Sacramento, 2000.

Field Supervisors in Practical Theology


George Hilton, Ph.D. B.S., Western Adventist College, 1979; M.S., Oklahoma State University, 1981; Ph.D., Oklahoma State University, 1984.


Field Supervisor in Chaplaincy Program
Judy Crabb, B.A. B.A., Atlantic Union College.

School Partnerships in Supervised Instruction
Foothills Adventist Elementary School
Pacific Union College Elementary School
Pacific Union College Preparatory School
Calistoga Joint Unified School District
Howell Mountain School District
Napa Valley Unified School District
Pope Valley Unified School District
St. Helena Unified School District

Field Supervisors in Education
Dee Abate, B.A., B.A., San Jose State University, 1958.
John Sidorski, B.S., B.S., Humboldt State University, 1968.
James Templin, M.A.; B.S., Mankato State University, 1952; M.A., San Francisco State University, 1958.

Paulin Center for the Creative Arts


John Bennett, Cellist, Vallejo Symphony Orchestra. San Francisco State University; California State University,
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 advisers’ signatures on registration 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 deleting 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—Using network access inappropriately, 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, knowingly spreading a computer virus, and obtaining a computer account under false pretenses.

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. The student receives a copy of the document. A copy is filed in the Academic Dean’s office.

3. The General Academic Studies and Policies Committee reviews serious first offenses and repeat offenses and may recommend to the Academic Dean disciplinary action beyond that defined by the course instructor.

4. Students who wish to appeal the decision of the instructor, the Academic Dean, or the General Academic Studies and Policies Committee may do so, following the grievance procedure outlined in the Student Handbook.

5. Students are entitled to add a written rebuttal to their personal files.
### Index

<table>
<thead>
<tr>
<th>Page</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Absences ........................................</td>
</tr>
<tr>
<td>36</td>
<td>ACA see Adventist Colleges Abroad</td>
</tr>
<tr>
<td>35</td>
<td>Academic Course Load ..........................</td>
</tr>
<tr>
<td>15</td>
<td>Academic Disciplinary see Academic Integrity</td>
</tr>
<tr>
<td>37</td>
<td>Academic Distinction ...........................</td>
</tr>
<tr>
<td>41</td>
<td>Academic Information and Policies ..........</td>
</tr>
<tr>
<td>33</td>
<td>Academic Integrity ............................</td>
</tr>
<tr>
<td>36, 221</td>
<td>Academic Probation ................................</td>
</tr>
<tr>
<td>39, 17</td>
<td>Academic Program ................................</td>
</tr>
<tr>
<td>21</td>
<td>Academic Progress, Satisfactory ............</td>
</tr>
<tr>
<td>63</td>
<td>Academic Renewal ..................................</td>
</tr>
<tr>
<td>37</td>
<td>Academic Suspension ...........................</td>
</tr>
<tr>
<td>17</td>
<td>Acceptance, for Handicapped ..................</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance, cancellation of ..................</td>
</tr>
<tr>
<td>30</td>
<td>Acceptance Follow-Up Procedures ............</td>
</tr>
<tr>
<td>18</td>
<td>Accounting ........................................</td>
</tr>
<tr>
<td>70, 74</td>
<td>Accounts, payment of ...........................</td>
</tr>
<tr>
<td>198, 206</td>
<td>Accreditation, approval of programs ........</td>
</tr>
<tr>
<td>2</td>
<td>ACT Test, requirement ..........................</td>
</tr>
<tr>
<td>18</td>
<td>Accrued Certification ...........................</td>
</tr>
<tr>
<td>127</td>
<td>Administration, College .........................</td>
</tr>
<tr>
<td>210</td>
<td>Admission of International Students ........</td>
</tr>
<tr>
<td>19</td>
<td>Admissions information ........................</td>
</tr>
<tr>
<td>17, 19, 30</td>
<td>Adult Education ................................</td>
</tr>
<tr>
<td>19, 32, 193</td>
<td>Advanced Enrollment Freshmen ................</td>
</tr>
<tr>
<td>19</td>
<td>Advanced Placement examination ..............</td>
</tr>
<tr>
<td>39, 205</td>
<td>Adventist Colleges Abroad (ACA) .............</td>
</tr>
<tr>
<td>134</td>
<td>Advising services ................................</td>
</tr>
<tr>
<td>14, 34</td>
<td>Agriculture ........................................</td>
</tr>
<tr>
<td>40</td>
<td>Albion .............................................</td>
</tr>
<tr>
<td>63</td>
<td>Alternating courses ............................</td>
</tr>
<tr>
<td>43</td>
<td>Anthropology ......................................</td>
</tr>
<tr>
<td>58</td>
<td>AP and CLEF Tests ................................</td>
</tr>
<tr>
<td>39</td>
<td>Apartments ........................................</td>
</tr>
<tr>
<td>205</td>
<td>Emeri .............................................</td>
</tr>
<tr>
<td>39</td>
<td>Appendix: Academic Integrity .................</td>
</tr>
<tr>
<td>221</td>
<td>Application fee ....................................</td>
</tr>
<tr>
<td>17, 197</td>
<td>Application Procedures .........................</td>
</tr>
<tr>
<td>17</td>
<td>Applied Mathematics ..............................</td>
</tr>
<tr>
<td>128</td>
<td>Applied Skills for General Education ........</td>
</tr>
<tr>
<td>177</td>
<td>Approval, accreditation of programs ..........</td>
</tr>
<tr>
<td>2</td>
<td>Architecture ......................................</td>
</tr>
<tr>
<td>31</td>
<td>Areas of Study .....................................</td>
</tr>
<tr>
<td>4</td>
<td>Armed Forces credit ............................</td>
</tr>
<tr>
<td>35</td>
<td>Art Department ....................................</td>
</tr>
<tr>
<td>15</td>
<td>Assessment of Outcomes ........................</td>
</tr>
<tr>
<td>39</td>
<td>Associate Degree Program ........................</td>
</tr>
<tr>
<td>4, 21</td>
<td>Astronomy .........................................</td>
</tr>
<tr>
<td>161</td>
<td>Attendance policy ................................</td>
</tr>
<tr>
<td>36</td>
<td>Audiology ..........................................</td>
</tr>
<tr>
<td>92</td>
<td>Audited courses 19, 33, 36, 197, 206 ......</td>
</tr>
<tr>
<td>205</td>
<td>Automobile insurance .........................</td>
</tr>
<tr>
<td>205</td>
<td>Automobile registration fee ...................</td>
</tr>
<tr>
<td>199</td>
<td>Family Discount ...................................</td>
</tr>
<tr>
<td>173, 175</td>
<td>Aviation ..........................................</td>
</tr>
<tr>
<td>4, 22</td>
<td>Baccalaureate Degree Programs ................</td>
</tr>
<tr>
<td>207</td>
<td>Banking, student ..................................</td>
</tr>
<tr>
<td>155</td>
<td>Bible Instructor ..................................</td>
</tr>
<tr>
<td>167</td>
<td>Biblical Languages ..............................</td>
</tr>
<tr>
<td>168</td>
<td>Biological Sciences .............................</td>
</tr>
<tr>
<td>37</td>
<td>Billing procedure ................................</td>
</tr>
<tr>
<td>198</td>
<td>Biochemistry ......................................</td>
</tr>
<tr>
<td>82</td>
<td>Biological Field Station ........................</td>
</tr>
<tr>
<td>63</td>
<td>Biology ............................................</td>
</tr>
<tr>
<td>63, 64, 65</td>
<td>Biomedical Department .........................</td>
</tr>
<tr>
<td>140</td>
<td>Biophysics ........................................</td>
</tr>
<tr>
<td>160</td>
<td>Board, minimum charge ..........................</td>
</tr>
<tr>
<td>198</td>
<td>Board of Trustees ...............................</td>
</tr>
<tr>
<td>209</td>
<td>Bookstore .........................................</td>
</tr>
<tr>
<td>207</td>
<td>Breaking residence ..............................</td>
</tr>
<tr>
<td>41</td>
<td>Business Administration ........................</td>
</tr>
<tr>
<td>70, 72, 74</td>
<td>Business Administration and Economics ....</td>
</tr>
</tbody>
</table>
| 69    | Business Administration and Economics .......
| 6, 7     | Calendars ..........................................|
| 226, 227 | Campus directory, map ..........................|
| 120   | Catalog of Graduation ..........................|
| 60    | Checks .............................................|
| 207   | Career and Counseling Center ..................|
| 14    | Career counseling ................................|
| 14    | Career Information Library .....................|
| 14    | Cash discounts ....................................|
| 198   | Cash withdrawals ................................|
| 207   | Catalog (CAFE) ....................................|
| 40    | Checks .............................................|
| 207   | Changes in registration .........................|
| 33    | Chemistry .........................................|
| 81, 82, 83 | Chemistry Department ..........................|
| 81    | Class absences ....................................|
| 39    | Classification of Students ......................|
| 40    | CLEF and AP Tests ................................|
| 39    | College-Standards ................................|
| 15    | Communication ......................................|
| 87, 90 | Communication Department ......................|
| 109   | Comprehensive examination, senior ...........|
| 23    | Computer Science ...............................|
| 93, 94, 95 | Concert and Lecture Series ....................|
| 116   | Courses ............................................|
| 38    | Credit for student missionaries and ........|
| 39    | Credit from unaccredited institutions .......|
| 43    | Credit hours defined ............................|
| 43    | Credit, reserving for post-degree ............|
| 38    | CyberCourses .......................................|
| 195   | “Dear week” ........................................|
| 39    | Dean’s List ........................................|
| 37    | Degree Candidacy ..................................|
| 41    | Degree-Completion Programs 2 184, 185 ......|
| 41    | Degree, more than one ..........................|
| 41    | Degrees, Associate offered ....................|
| 4     | Degrees, offered ..................................|
| 4     | Degrees offered ..................................|
| 43    | Dental Hygiene ......................................|
| 31    | Dentistry ..........................................|
| 31, 45 | Discount, tuition ................................|
| 107, 139 | Dishonors, academic see Academic Integrity |
| 37    | Division ............................................|
| 110, 114 | Directed Study .................................|
| 43    | Directed Group Study ............................|
| 43    | Early admission to college ....................|
| 39    | Early Childhood Education 2 98, 103 .........|
| 185   | Early Childhood Ed. Degree Completion .......|
| 185   | Economics .........................................|
| 76    | Education .........................................|
| 97, 104 | Education Department .........................|
| 97    | Education, master’s degree program ...........|
| 29    | Elementary teaching .............................|
| 101   | Employment, student .............................|
| 202   | Engineering .......................................|
| 31, 160, 161 | English ............................................|
| 109, 111 | English as a Second Language .................|
| 111   | English Department ..............................|
| 110   | English Education ................................|
| 110   | Equal Opportunity Commitment ................|
| 2     | Europe, study in ................................|
| 134   | Even-year courses ................................|
| 43    | Examination, credit by ..........................|
| 38    | Examination fees ..................................|
| 197   | Examinations .......................................|
| 39    | Exercise Science ...................................|
| 116   | Exercise Science, Health & Nutrition ........|
| 115   | Expenses, Estimate of ...........................|
| 198   | Faculty Directory ................................|
| 213   | Family Rights and Privacy .....................|
| 15     | Fees, miscellaneous ............................|
| 197   | Fees .................................................|
| 39    | Final Examinations ................................|
| 39    | Faculty Directory ................................|
| 213   | Family Rights and Privacy ........................|
| 15     | Fees, miscellaneous ............................|
| 197   | Fees .................................................|
| 39    | Final Examinations ................................|
| 39    | Financial Aid ......................................|
| 222   | Financial Aid ......................................|
| 222   | Financial Aid ......................................|
Information

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**College General FAX Number**

................................................................................................................................................. 965-6390

**Academic Administration**

Vice President for Academic Administration and
Academic Dean .......................................................... 965-6234
FAX ........................................................................ 965-7104
Academic Advising ................................................. 965-7103
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Associate Academic Dean ...................................... 965-7103

**Admissions and Catalogs**

Enrollment Services ............................................. 965-6336
Toll-Free Number .................................................. (800) 862-7080
E-mail ........................................................................ enroll@puc.edu
FAX ........................................................................ 965-6432

**Advancement and Development**

Vice President for Advancement .......................... 965-7500
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**Alumni**

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**Public Relations**

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Degree-Completion Program .............................. 965-5520
Toll Free .................................................................. (800) 862-7080, #5
FAX ........................................................................ 965-6416

**Counseling, Testing, Placement Services**

Director, Counseling Services .............................. 965-7364

**Financial Administration**

Vice President for Financial Administration ........... 965-6699
FAX ........................................................................ 965-6400

**Graduate Program**

Department of Education ...................................... 965-7265

**Matters of General Interest**

President ................................................................ 965-6211
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FAX ........................................................................ 965-6499
Los Angeles Campus ............................................ (800) 433-3177, Ext. 1080
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Los Angeles, CA 90033-2481

**Mailing Address:**

Department of Nursing
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Los Angeles, CA 90033-2481

**Records Office**

Registrar ............................................................... 965-6673
Transcripts ............................................................. 965-6489

**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 Services**

Vice President for Student Services, Dean of Students ...... 965-7362

**Student Finance**

Director, Student Financial Services .......................... 965-7200

**Summer School and Special Education Programs**

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