

California University of Pennsylvania

250 University Avenue California, PA 15419-1394 724-938-4187 www.cup.edu

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California University of Pennsylvania

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Equal Opportunity

California University of Pennsylvania acknowledges that equality of opportunity is the cornerstone of a free and democratic society. As a state-owned institution, it accepts the duty of putting the principle of equal opportunity into practice. As an institution of higher education, it accepts the responsibility of teaching that principle by its policies and actions. Consequently, California University of Pennsylvania commits itself, ethically and legally, to the equal opportunity policies of a system of fair and open recruitment and acceptance of students regardless of sex, race, color, religious creed, lifestyle, affectional or sexual preference, disability, present or previous military service, ancestry, national origin, union and political affiliation, and age. Nevertheless, mindful of the reality of past injustices and present societal needs, the university reserves the right to employ a limited use of racial, ethnic, and sexual criteria to accomplish remedial objectives when necessary.

Once students are admitted to California University of Pennsylvania, the same rights, privileges, programs and activities are made available to all without regard to arbitrary and irrelevant criteria. Financial aids, especially scholarships, guaranteed loans, grants, work study programs, assistantships, and internships, are provided on an equal opportunity basis. Likewise, advisors and counselors are available to all students. Special programs have been established to meet the needs of students and are available on a first-come, first-served basis to all students without regard to race, national origin, or religion. However, in the case of living arrangements, sex and disability distinctions are made to better serve and accommodate all students. Finally, in accordance with recent federal and state legislation, architectural and programmatic modifications have been implemented to ensure that no qualified student is prevented from succeeding at California University of Pennsylvania because of disability.

In addition, California University of Pennsylvania engages in an open and equitable system of recruitment and employment of faculty and staff candidates. It practices a non-discriminatory system of compensation, including pay, promotion, tenure, transfer, education, training and other benefits of employment.

California University of Pennsylvania prides itself on having created a workplace and learning environment free from discrimination and harassment. If situations or conditions to the contrary occur, an immediate and appropriate redress will take place. Persons aware of such situations or conditions are encouraged to contact the Social Equity Officer 724-938-4014, the Title IX Coordinator 724-938-4351, or the Section 504 ADA Coordinator 724-938-4076.

From the President

California University of Pennsylvania is in the opportunity business. Since 1852, thousands of students have seized the opportunity we offer to improve not only their lives, but the lives of people they have touched.

Our alumni are practicing professionals in education, health care, law, public service, business, environmental science, and government, and the list doesn't stop there. From coastal wetlands to outer space, California University graduates are using their education to continue the never-ending search for knowledge. In various settings all over the globe, Cal U alumni are helping to make the world a better place.

At California, we place a great emphasis on people and relationships. We have a dedicated faculty, a caring, concerned staff, excellent facilities, exemplary curriculum, and a variety of extra-curricular activities, all dedicated to helping students get the most from their college experience.

Learning is not confined to the classroom; the university experience should be a broad one. Personal growth is proportionate to the wise use of the many resources available. We encourage students to become involved in the total life of the University and its surrounding communities.

We also foster a family atmosphere. We are small enough to care about individuals, and yet large enough to be able to offer a variety of programs.

I hope that you take time to read through this catalog. It can tell you much about the University and its programs. To really get to know us, however, you should come for a personal visit, and I urge you to do that. You and your family are always welcome.



Angelo Armenti Jr., President

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Application for Admission

If you would like an application for admission to graduate study or a copy of the latest schedule, you can write, email or telephone the office of the School of Graduate Studies and Research.

School of Graduate Studies and Research
California University of Pennsylvania
250 University Avenue
California, PA 15419-1394
Email: gradschool@cup.edu
Phone: 724-938-4187

An answering service will take your message after office hours which are 8 am to 4 pm, Monday through Friday. See page 8.

California University of Pennsylvania



GOALS AND OBJECTIVES

The School of Graduate Studies and Research at Cal U offers three advanced degrees: The Master of Arts (M.A.), the Master of Education (M.Ed.), and the Master of Science (M.S.).

The Master of Education program is intended primarily for in-service teachers and other applicants who meet the standards of graduate study established by the university.

The Master of Arts and the Master of Science degrees are intended for applicants who have an academic major or other adequate preparation in the area in which they wish to matriculate in graduate studies. Graduate students have an opportunity to study in depth in their areas of specialization and become more proficient in their disciplines.

CERTIFICATES

The university also offers certain graduate programs that lead to initial, specialized certification beyond the baccalaureate level. In these graduate programs, individual departments determine the competency of the graduate student for certification. It will be noted that receiving a Master's degree does not automatically and of itself entail receiving initial certification.

Graduate study at Cal U is especially designed to include classroom, laboratory, clinical, internship and research experiences that add knowledge, depth, breadth and practical experience to the graduate student's educational background. The program for each person admitted to the School of Graduate Studies and Research is planned in cooperation with an adviser and is based on the previous training and experience of the entering graduate student.

A minimum of 30 to 36 credits (semester hours) is required of all degree students, depending on the program and the options within that program chosen by the graduate student. The requirements in the certification programs are determined by the program and the background and experience of the applicant. (SEVERAL PROGRAMS REQUIRE MORE THAN 36 CREDITS.) Curricula differ according to the various areas of specialization. Certain other standards of proficiency described elsewhere in this catalog must also be met for completion of graduate programs and the conferring of the graduate degree.

Each of the graduate programs at the university has its particular goals and approaches based on the subject matter of the unique discipline, the backgrounds and strengths of the faculty members, and a flexible approach to the needs and levels of preparation of individual students. Sll of the programs share the following objectives as principal common purposes.

COMMON OBJECTIVES

To offer opportunities and resources for graduate students to increase **competence** in and **basic understanding** of their disciplines;

To provide opportunities to attain professional growth;

To assist in the development of modes of inquiry and substantive understandings that promote a critical and creative attitude toward **humanistic** and **scientific principles**;

To develop research skills;

To develop responsible leadership roles and the ability to relate effectively to other people;

To encourage academic and professional growth beyond the Master's degree.

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About California University

The university is in the Borough of California, a community of approximately 6,000 residents, located on the banks of the Monongahela River, about an hour's drive south of Pittsburgh. It is accessible via Interstate 70, Exits 15 (PA 43), 16 (Speers), or 17 (PA 88, Charleroi) or via U.S. 40 (PA 43 or 88). The Mid-Mon Valley/ Fayette Expressway (PA 43) links California to the federal Interstate Highway system. The university is approximately 30 minutes from Exit 8 (New Stanton) on the Pennsylvania Turnpike, and an hour from Greater Pittsburgh International Airport.

The main campus consists of 38 buildings situated on 80 acres. An additional 104-acre recreation complex, George H. Roadman University Park, is located one mile from campus. This complex includes a football stadium, an all-weather track, tennis courts, a baseball diamond, a softball diamond, soccer and rugby fields, a cross country course, areas for intramural sports, and picnic facilities.

The geographic location of the university gives the resident student opportunities to explore and pursue a wide variety of activities.

Located on the Appalachian Plateau, an area of rolling hills, the university is a short drive from camping, hiking, fishing, hunting, white water rafting, and canoeing, and skiing activities in the Laurel Mountains. In addition to cultural activities provided on campus, the student has easy access to the Pittsburgh metropolitan area, located only 30 miles from campus.

This provides an opportunity to enjoy the Pittsburgh Symphony, the Pittsburgh Ballet, the Civic Light Opera, the David L. Lawrence Convention Center, the Pittsburgh Steelers, Penguins, and Pirates, various museums and all of the excitements and attractions of a metropolitan area.

The institution that is now California University of Pennsylvania began as an academy more than 140 years ago. It has evolved over the years until now it is a multi-purpose university. One of the fourteen state-owned institutions of higher education in the Pennsylvania State System of Higher Education, it has the strength and stability of a university system, but it retains its own flavor and unique history.

1852: A two-story Academy, offering education from kindergarten through college was established in the recently founded community of California. The institution was supported by local taxes and the donations of some residents of the community.

1864: A ten-acre plot for the Academy, still the center of the university, was purchased.

1865: The Academy obtained a charter as a Normal School for its district and became a teacher-preparatory institution.

1874: The institution was renamed the South-Western Normal School.

1914: The Commonwealth acquired the institution and renamed it the California State Normal School. The curriculum became exclusively a two-year preparatory course for elementary school teachers.

1928: The institution became California State Teachers College, returning to its previous status as a four-year-degree-granting institution, with increasing opportunities for liberal arts education. Under the presidency of Robert Steele (1928-1951), California began to concentrate on industrial arts and atypical education (what is now called special education) and otherwise expanded its curricula. The campus grew to 35 acres, and a number of new buildings were erected.

1959: During the presidency of Michael Duda (1956-68), liberal arts curricula were introduced, and the college became California State College. In 1962 a graduate program was introduced. The degrees of M.A. and M.S. were initiated in 1968. During Dr. Duda's presidency, more than a dozen new buildings were completed, and the size of the student body and faculty increased more than four-fold.

1974: During the presidency of George H. Roadman (1969-1977), the college developed a special mission in Science and Technology, to complement its traditional roles in Liberal Arts and Education.

1983: On July 1, 1983, the college became a part of the State System of Higher Education and changed its name to California University of Pennsylvania. Under the leadership of President John P. Watkins (1977-1992), the College of Science and Technology became fully operational, offering programs in such varied areas as mathematics and computer science, industrial management, nursing, energy technology, robotics, and electrical engineering technology.

1992: Angelo Armenti Jr. appointed president of California University.

1996: College of Science and Technology renamed Eberly College of Science and Technology in honor of the Eberly Foundation for its philanthropic generosity.

1997: Cal U Southpointe Center in the Southpointe Technology Center in Canonsburg, PA, opened in January, offering a variety of courses and programs.

1998: The University formally adopts three core values: integrity, civility and programs.

1999: The new Eberly Science and Technology Center, a state-of-the-art facility for the study of science and technology scheduled to open during 1999-2000 academic year.

ADMISSIONS

Application for Admission

If you would like an application for admission to graduate study, you may return the prepaid postal card at the back of this catalog. If someone has used it before you, you can write or telephone the office of the School of Graduate Studies and Research. Phone 724-938-4187—an answering service will take your message after office hours.

School of Graduate Studies and Research California University of Pennsylvania 250 University Avenue California PA 15419-1394.

Some of the graduate programs described in this catalog lead to specialized initial certification in certain fields of education. In additon, it is possible, in certain disciplines, to combine graduate study towards a Master's degree and pursuit of initial teaching certification.

If you are interested in doing so, you may write or telephone the School of Graduate Studies and Research 724-938-4817 or the College of Education 724-938-4125 or 724-938-4126 at the university for specific information.

You should apply for admission to the School of Graduate Studies and Research as early as possible, preferably no later than three weeks before the session in which you plan to enroll

Applications may be obtained from the School of Graduate Studies and Research California University of Pennsylvania 250 University Avenue California PA 15419-1394 724-938-4187

Email: gradschool@cup.edu

They should be returned, with the \$25.00 application fee, to the same address. At the same time, official transcripts of all graduate and undergraduate work should be sent by the granting institution to the School of Graduate Studies at California University of Pennsylvania. It is not necessary to send a transcript of work done at California University.

For more detailed information about any program you find in this catalog, you may write, telephone, or ask for an appointment with either the chairperson or the graduate studies coordinator of the department offering that program or with the Dean of the School of Graduate Studies and Research.

Required Steps in Application Process:

- You must present evidence of a bachelor's degree from a college or university that is accredited by the National Commission on Accreditation or the appropriate regional accrediting agency.
- You must present an official transcript of your undergraduate work, showing at least a 3.0 quality point average (on a four-point scale); other quality point averages may be required for admission to certain programs.
- 3. If you are applying for admission to the graduate program in Business Administration, you must take the Graduate Management Admission Test (the GMAT). If you are applying for admission to the graduate program in Biology, Communication or Communication Disorders you must take the Graduate Record Examination (GRE).
- If you do not have a 3.0 undergraduate average, you will have to take the Miller Analogies Test for conditional admission (in programs other than Business Administration, Communications, Communications Disorders and Biology.)
- 5. For the Master of Education degree in most fields, you must already have a teaching certificate in the field in which you also wish to enroll for graduate study.
- 6. For the Master of Arts and Master of Science degrees, you will have to present evidence of adequate undergraduate preparation in the field in which you enroll.

NOTE:

Admission to a program does not carry with it admission to candidacy for the degree. See the statement on candidacy requirements in the next section of this catalog.

Admission to Certification Programs Beyond the Master's Degree

The university offers certification programs that require additional experience and credits beyond the Master's degree and that develop appropriate competencies in specific areas of specialization. They are in the fields of Administration (for either the Elementary Principal or the Secondary Principal Certificate), Technology Education Supervision, Reading Supervision, School Psychology, and Superintendent's Letter of Eligibility.

Those interested in any of these programs may want to speak with the chairperson or the graduate studies coordinator of the department, or with the Dean of Graduate Studies and Research. Applicants for these certification programs must have completed all the prerequisites and any special requirements, as follows. Applicants to the Administration Programs for Principals must have their graduate work and professional experiences evaluated in order that the necessary learning experiences may be prescribed, to fulfill the competency standards of the program. Applicants for the Technology Education Supervisory program must have completed the Master's degree. Applicants for the Reading Supervisory program must have completed the Master's degree and have obtained the Reading Specialist Certificate. Applicants for the School Psychologist certification program must have completed a Master's degree in School Psychology or a related field and must obtain a minimum of thirty credits in special experiences and courses in the School Psychology program.

Admission Other Than as an Applicant for a Degree

Although most graduate students at California are enrolled in degree programs, there are opportunities to take some graduate programs, either for personal or professional growth or for certification, without becoming an applicant for a university graduate degree.

If you wish to take graduate courses at California University but do not wish to enroll in a formal certification program or as a possible applicant for a degree, you will nevertheless have to apply for admission to the university (and pay the normal application fee), and your acceptance will be based on the amount and quality of your preparation as determined by the academic department in which you will be taking courses.

Upon admission, you will be permitted to take any number of courses, but completion of these courses does not automatically and in itself lead to admission to a degree or certification program, and only six credits taken as a non-degree student are normally applicable upon transfer to a degree program.

Graduate students from other universities (sometimes Graduate students from other universities (sometimes known as "transient students") who wish to take courses at California University of Pennsylvania should be certain, before they enroll, that the courses they plan to take here will be counted towards their graduate program at their home institutions.

Policies about the transfer of graduate credits vary from institution to institution; but commonly universities do not permit graduate students to transfer to any of their programs more than six semester credits taken elsewhere.

International Students

California University welcomes applications from students from countries other than the United States. All international students who apply for graduate studies must meet the same entrance requirements as all other students. For admission, the following documents must be submitted:

- A completed application and application fee;
- 2. An official transcript, sent by the institution, of all undergraduate work;
- An official copy of a teaching certificate (if application is being made to certain Master of Education programs);
- 4. TOEFL scores, sent by the testing agency, attesting to competency in the use of the English language;
- 5. A statement of financial support; and
- Any other necessary forms.

Final admission is contingent upon clearance from the education authorities of the home country and from the Immigration and Naturalization Service of the United States.

International students will also require, for purposes of the university's records, a United States Social Security number.

A limited amount of financial aid is available to international students, chiefly in the form of graduate assistantships requiring a certain amount of work at the university; but students must be certain of adequate funds for their academic and living expenses before enrolling. International students must be enrolled for at least one semester before a graduate assistantship may be granted.

All international students must subscribe to the medical insurance plan of the university.

Applications and Schedules

If you would like an application for admission to graduate study or a copy of the new schedule or the next one, please return the prepaid postal card included inside the back cover of this catalog.

If someone has used it before you, you can phone the School of Graduate Studies and Research at 724-938-4187—an answering machine will take your message after normal office hours. See page 8.

Or write:

School of Graduate Studies and Research 250 University Avenue California University of Pennsylvania California PA 15419-1394.

Email: gradschool@cup.edu

Registration by Mail

After you have been accepted and first enrolled in graduate studies at California University, you may schedule for the next semester or summer session by mail.

Graduate students should consult with their academic advisers before scheduling their courses. Registration cards must be signed by the adviser. After such approval has been obtained, the registration forms may be returned by mail (or in person) to the School of Graduate Studies and Research.

If you have been accepted into a program of graduate studies but have not been recently enrolled at California University, you may obtain a schedule or registration materials by writing or telephoning the School of Graduate Studies and Research (See telephone number and address above).

You may pay your fees by Visa or by MasterCard. If you preregister by mail, you may complete the credit card authorization included in your registration packet. If you register in person, authorization forms may be obtained at the Bursar's Office.

Registration on Campus

If you prefer, you may register at the University shortly before the opening of classes on days announced in the schedule of classes both during the day and in the evenings. Faculty advisers from all academic disciplines are present to assist during these registration periods. Registration after these dates is considered late registration and entails a late registration fee.

Graduate students who register at this time should be prepared to pay their fees then, but existing arrangements for deferment of payments for recipients of financial aid, for veterans, etc. will be honored. (Payments must be by check,

money order, or bank draft, payable to California University of Pennsylvania.)

Graduate students are allowed to alter their schedules within the first week of classes. Exceptions are allowed with the permission of the Dean. Provided that there is no over-all change in the number of credits involved and that the changes do not constitute a withdrawal from the School of Graduate Studies and Research for the semester or summer.

ACADEMIC POLICIES

Responsibility for Regulations

Responsibility for knowing and complying with all academic rules and regulations, including the requirements for graduation, rests with the individual graduate student. Faculty advisers assist graduate students in planning their academic programs and research requirements, but they are not expected to relieve graduate students of responsibility in other areas.

Planning a Program

As soon as students have been admitted to a graduate program, they will be referred to the appropriate department for academic advising. Graduate students' programs are planned specifically for them in conference with their advisers, and research advisers are assigned to graduate students by the Dean's office after they have been admitted to candidacy for the Master's degree.

Candidates doing a Research Study may choose a specific research adviser, after consultation with their department chairperson or the Dean of Graduate Studies and Research.

Each student should consult with his/her adviser throughout the graduate program on a regularly scheduled basis. Programs of studies must be approved by a student's adviser before registration.

Appealing a Grade or Other Academic Decisions

University decisions are based upon applicable policies, rational procedures, and sound decision-making principles. Concerning a students grade, it must be understood that it is not the policy of the administration to change a properly assigned grade i.e., one based upon recorded grades for quizzes, exams, assignments, projects, and other grade criteria as indicate on the course syllabus or outline.

However, when a student alleges violations of sound academic grading procedures, the University administation and faculty mutually support a student appeal procedure which gives both the student and the faculty member a fair process to substantiate and/or refute those allegations.

In appealing a grade, a student should first contact the faculty member who issued that grade to discuss the reason for the grade. If the student is not satisfies with the faculty

member's explanation, the student should then contact the faculty member's department chairperson. This contact must be in writing and must be filed with the chairperson within thirty working days after the beginning of the fall or spring semester following the term in which the grade in question was given. The chairperson shall notify in writing the student and faculy member of his/her receipt of the appeal from the student.

If accord is not reached through the chairperson, the student may then appeal to the college dean. Such appeal must be in writing and must be filed with the dean within 15 working days from the date of the final written determination of the chairperson. The dean shall notify in writing the student and faculty member of his/her findings and decision within 15 working days of his/her receipt of the appeal from the student. The final source of appeal is the Provost. This final step should be taken only if there is no possibility for resolution at an earlier stage, and only if the student is convinced that arbitary and/or capricious standards were applies. The appeal to the Provost must be in writing and must be filed with the Provost within 15 working days from the date of the final written determination of the dean. The Provost shall review the matter and take action as necessary to provide equity in the situation.

In the case of other academic decisions, the student should follow the same appeal procedure insofar as possible. In matters relation to student conduct and discipline, the Vice President for Student Development has authority to review student appeals. In matters relating to financial aid, see the section on Financial Aid in this catalog; in matters relating to teacher certification, see the relevant section in this catalog.

Style Manuals for Preparation of Papers

Research studies must conform to a format and style that is recognized by the principal scholarly journals in the discipline. Students are expected to obtain and use the style manual which is suggested by their respective programs. Most programs in the School of Graduate Studies and Research require the use of the most recent edition of the Publication Manual of the American Psychological Association (APA) or the MLA Handbook for Writers of Research Papers. Copies of these manuals and other manuals maybe purchased in the bookstore or consulted in the Manderino Library.

Permanent Certification for Teachers

If you already have a Pennsylvania teaching certificate, you can also use the credits you earn in a graduate program at California University towards the post-baccalaureate requirements for permanent certification in the Commonwealth.

Some graduate programs lead to specialized initial certification, at the graduate level, in certain fields; but it is often possible, in other fields, to combine graduate study towards a Master's degree and pursuit of initial teaching certification. If you are interested in doing so, you may write or telephone the School of Graduate Studies and Research or the College of Education and Human Services.

Cap and Gown Fee

Candidates who have been approved for the Master's degree are required to purchase or to rent a Master's cap, gown and hood, to be worn at the Commencement exercises, from the university bookstore in the Student Union.

Binding Fee

Three copies of the Master's Thesis, Research Project, or Research Paper must be submitted to the University and bound at the candidate's expense. Arrangements for binding are handled through the School of Graduate Studies and Research. Additional copies for the candidate's own use may be bound, at the same cost per copy.

Course Load

A full-time student is normally one who has scheduled nine to fifteen hours of work in the fall or spring semester. The Dean may allow graduate students with fewer scheduled credits to be considered as full-time students, under certain circumstances.

Part-time graduate students may schedule no more than six credits in the fall or spring semester.

During the summer session a graduate student may earn a maximum of twelve credits.

Candidacy

After admission to a graduate program and after a certain amount of course work, in order to complete a program of study leading to the Master's degree, the graduate student must apply for and be admitted to the status of candidacy, which may be understood as full approval to continue to pursue the degree. It is the individual's responsibility to apply for candidacy in due time and manner. Application for candidacy

should be made when a graduate student has completed at least six but no more than twelve credits of graduate study at this university. Credits completed in excess of twelve will not ordinarily be accepted for inclusion in a degree program. Application is requested by means of a form available in the office of the School of Graduate Studies and Research. Applications requesting admission to candidacy should customarily be made within three weeks of the beginning of a semester or a summer session; and candidacy is customarily granted (according to a date announced in each published Schedule of Classes) approximately midway through the semester or the summer session.

The applicant for candidacy must demonstrate a 3.0 quality point average (B average) in graduate courses. Approval for admission to candidacy is granted by individual departments or programs, which may have special requirements such as interviews or tests, and by the Dean of Graduate Studies and Research.

For more precise details, the applicant should consult with the department chairperson. The University reserves the right to deny the applicant's request for admission to candidacy for the Master's degree.

"Residency" Requirement

In most programs leading to the Master's degree a total of between 30-36 semester hours of academic work (depending on the option selected) is required, in addition to the other special requirements stipulated in this catalog.

Of this number, all but six credits must be taken at California University. (This requirement is known as the "residency" requirement, but it has nothing to do with one's place of residence and does not require living on campus.)

An effort is always made to schedule courses so that graduate students may complete their degrees as expeditiously as possible, either with or without the use of summer academic work; but courses with very small total enrollments cannot always be scheduled when some students may wish them to be.

A maximum of six semester hours of graduate study done at another institution in an accredited graduate program may be transferred to California University.

Transferred credits must represent courses equivalent to those offered at California University, and only grades of A or B are accepted. Such credits must have been earned within five years of the date of the application for admission to the graduate program at California University. Transfer credits are not figured into the quality point average. Extension credits are not accepted for transfer.

A graduate student already enrolled at California University who wishes to enroll in a graduate course at another institution and to have the course transfer to his/her program at California must obtain approval from his/her program adviser and from the Dean of Graduate Studies and Research at California before enrolling at the other institution.

Applications for such transfer of credits are available in the office of the School of Graduate Studies and should be completed and returned before taking the course. An official transcript from the institution at which the course was offered must be submitted to the School of Graduate Studies before the course can be entered on the graduate student's permanent record at California.

Withdrawals

All withdrawals are subject to university regulation concerning credit or refunds of fees.

Graduate students who find it necessary to leave the university while they are taking courses should, if possible, confer with the Dean of Graduate Studies and Research before they withdraw. The appropriate withdrawal forms must be completed before withdrawal can be official; and customarily it is not possible to make a withdrawal except in person.

Graduate students who do not follow the requisite procedure may jeopardize their academic status or, by not meeting the necessary deadlines, fail to receive the full amount of any financial refunds to which they would otherwise be entitled.

Graduate students who cease to attend classes with taking other action are not considered to have officially withdrawn, and in such cases the failing grade of F is recorded on their permanent records.

Withdrawal from Individual Courses/Dropping and Adding Courses

Courses may be dropped during the first six weeks of a semester without academic penalty. Graduate students are allowed to alter their schedules, with the permission of the Dean of Graduate Studies and Research. Provided that there is no overall change in the number of credits involved and that the changes do not constitute a withdrawal from the School of Graduate Studies and Research for the semester or summer session concerned, there is no penalty for this drop/add procedure.

After the first six weeks, withdrawals from individual courses require the grade of either WP (indicating that the graduate student was failing the course at the time of withdrawal). Both WP and WF are entered on the permanent record, but the grade of WF is figured into the graduate

student's quality point average, while the grade of WP is not.

Complete Withdrawal

Graduate students are permitted to withdraw completely from the university until the final week of the semester. Permission is granted by the Dean of Graduate Studies and Research. The grade of WP or WF is assigned to all courses.

Administrative Withdrawal

Administrative withdrawals are initiated by officials of the university for compelling reasons, such as registration in violation of university regulations, failure to comply with academic requirements, failure to pay university fees on time, disciplinary suspension, severe psychological or health problems, or other such reasons deemed appropriate by the proper administrative officer.

Cheating and Plagiarism

Truth and intellectual honesty are both the subject matter and the necessary prerequisites for all education. Consequently, students who attempt to improve their grades or class standing by cheating on examinations or plagiarism on papers may be penalized by disciplinary action ranging from verbal reprimand to a failing grade in the course. If the situation appears to merit a more severe penalty, the professor may refer the matter to the graduate dean or the Vice-president for Academic Affairs, with a request for more formal disciplinary action by the University's Discipline Committee, which may result in suspension or expulsion from the university.

Grades

Only the grades of A, B, C, F, P, and I are awarded in the School of Graduate Studies and Research. A quality point average of at least 3.0, equivalent to a B average, is required of all graduate students in all graduate programs.

The grade of A is worth four quality points, B is worth three, C is worth two, and F is worth zero. (However, if a student withdraws from a course or from the University after the first six weeks and is earning a grade of D or F at the time, the grade of WF is recorded, and no quality points are earned.)

The quality point average is computed by multiplying the number of semester hours specified for each course by the quality points attained in that course, adding the total of these results, and dividing this total by the total number of semester hours attempted.

The temporary grade of I (for Incomplete) may be assigned by the professor if a student has not completed the work of the course, either because of illness or for other reasons that the professor considers acceptable. (The professor may, however, submit a course grade on the basis of work that has been completed.)

The student must arrange to complete the work necessary to

remove the grade of I within one calendar year of receiving it. If it is not removed within that period, the grade of I automatically becomes a grade of I-F, which cannot be removed from the graduate student's transcript unless the course is repeated for credit.

If an Incomplete is on a student's record in the semester or summer session when that student intends to graduate, the I becomes an I-F immediately before graduation—possibly adversely affecting graduation. If a graduate student has enrolled for the Master's Thesis, the Research Paper, or the Research Project, the grade of I will remain on the transcript until the Thesis, Paper, or Project is completed.

The grade of P is awarded in certain courses, to indicate the performance of satisfactory work in situations, such as some kinds of internships, in which it would not be appropriate to assign letter grades. The grade of P carries no quality points, and although the course is credited towards completion of a program or degree, the credits are not used to compute the quality point average.

If satisfactory work is not performed in such a course, the grade of F is awarded, and it is computed into the quality point average. The University does not allow graduate students a "Pass/Fail option" in courses in which letter grades are awarded.

Comprehensive Examinations

All graduate students who are candidates for the Master's degree must pass a comprehensive examination. The nature of the examination may vary from department to department, but it commonly has a written component and may have an oral component as well. The purpose of the examination is to evaluate the graduate student's ability to demonstrate the achievement of the objectives and/or competencies prescribed in the student's program.

The comprehensive examinations is administered by the department and are scheduled approximately halfway through the semester or the summer session. The date for this comprehensive examination is always announced by the department. Such examinations normally require three hours. Information about departmentl examinations should be obtained from the faculty adviser or chairperson.

Period for Completion of Degree

Graduate students must complete all requirements for the Master's degree within six years after the date of initial registration for graduate studies at California University.

Credit Options for the Degree

In a number of the degree programs, you may choose between a 30-credit degree program which requires a Research Project or Master's Thesis, and a 36-credit program, which permits you to complete six credits of research-related courses in place of the Research Project or

Master's Thesis. (In certain programs, a greater number of credits is required.) General information about the 30-credit option and what it entails is given below, but fuller details concerning these options will be found in the program descriptions in this catalog or may be obtained from the department concerned or from the Dean of the School of Graduate Studies and Research.

Approval for Degree

Each semester and during the summer, the Graduate School establishes and publishes a schedule of dates that must be met by all degree candidates for that period. The candidate must, within this schedule, submit to the Graduate Office an application for graduation and an up-to-date course distribution sheet, both of which must be approved and signed by the graduate student's adviser; must register for and take the Comprehensive Examination; and must submit the completed Research Study to the Graduate Office. (A "B" average is required for graduation.)

Students completing requirements for teaching certification must also complete a "Certification Endorsement" form. This form must be signed by the Program coordinator and by the Dean of Graduate Studies and Research. Graduate students applying for certification must also contact the office of the College of Education and Human Services.

Conferring Degrees

Degrees are conferred by the university three times each year: in May, at the end of the spring semester, in August, at the end of the summer session, and in December, at the end of the fall semester; but Commencement is held only once a year, in May. Graduate students who receive their degrees in exercises of the following May, but their diplomas and official university records and transcripts record the date when their degrees were conferred.

Attendance at the Commencement exercises is appropriate, unless particular circumstances warrant graduation in absentia. Permission to graduate in absentia is granted only upon formal request, by the President of the University, by the designee of the President, or the Graduate Dean.

Applications for the Master's degree should be made early in the semester or the summer session in which it is anticipated that the degree will be conferred, usually (according to a date published in every Schedule of Classes) no later than three weeks after the beginning of classes. The graduate student should consult with the School of Graduate Studies and Research not only to make formal application for the degree, but to ensure that all requirements have been met, that all fees have been paid, that one's name will appear accurately on the diploma, etc. The application for the Master's degree must be signed by the graduate student's adviser, to signify that all requirements have been completed.

Confidentiality Of Records

The university's policies on the confidentiality and disclosure of student records are based on the Family Education Rights and Privacy Act of 1974 (Public Law 93–380), as amended.

I. Introduction

Official student records are established and maintained in a number of administrative offices for a variety of legitimate educational purposes. In assuming responsibility for the reasonable protection of these student records, the university recognizes its obligation to comply with the Family Education Rights and Privacy Act of 1974. Important sections of this federal law are summarized below.

II. Ownership of Records

All records kept concerning students, including those records originating at other colleges or universities and required for admission, are the property of California University of Pennsylvania.

III. Definition of a Student

A student is defined as any person currently or previously matriculated on an official basis in any academic program of the University.

IV. Public Information Regarding Students

- 1. The following is classified as public and may be released without the prior consent of a student: a student's name, address (both local and permanent), telephone number, e-mail address, place and date of birth, academic curriculum, dates of attendance, date of graduation, degrees and awards received, most recent educational institution attended, participation in student activities (including athletics), and height and weight (for athletic teams).
- Students may request that any or all of this information not be made public. Such requests must be submitted in writing to the Registrar's Office or (in the case of graduate students) to the Dean of the School of Graduate Studies before the beginning of any academic term.

V. Disclosure of Student Records

- Upon proper identification, students my inspect their own official records in the presence of the administrator in charge of records.
- After a request to inspect a record has been received, the request must be honored within a reasonable period of time: according to federal law, not to exceed 45 days.

3. Limitations on the Right of Access by Students

The following are not subject to inspection by students:

- Confidential letters and statements of recommendation which were placed in the educational records before January 1, 1975.
- b. Financial records of the parents of the student, or any information contained therein.
- c. Medical, psychiatric or similar records that are used solely in connection with treatment. Such records can be reviewed by a physician or other appropriate professional of the student's choice.
- 4. Disclosure of Information to Third Parties In most circumstances students have the right to withhold their records from external third parties requesting to inspect these records. Exceptions to this general principle are as follows:
- Disclosure of student information will be made to a third party if written consent is given by the student in question.
- Information concerning a student will be released if properly subpoenaed pursuant to a judicial proceeding.
- c. All necessary academic and/or financial records of students may be disclosed to the appropriate persons or agencies without a student's prior consent in connection with a student's application for, or receipt of, financial aid.
- d. Further limited disclosure of certain kinds of information may be required in special circumstances in compliance with the federal law previously cited.

VI. Student Challenge to Record Entries

- 1. Students have the right to submit written or typed rebuttals to negative information contained in their files. A rebuttal statement shall become part of the file, and in cases where the negative information is reviewed by or transmitted to a third party, it must be accompanied by the student's statement of rebuttal.
- Students may challenge the accuracy and/or appropriateness of material combined in their files. Once such a challenge has been made in writing, it will be the responsibility of the university official in charge of the file to determine the validity of the challenge, if possible. The university official shall make a written response to the challenge of the student, specifying the action taken. Should a factual error be found in any materials, the university official is authorized to make the appropriate corrections.

- If options 1 and 2 of this section are unsatisfactory, students may request a formal hearing to challenge inaccurate, misleading, or inappropriate information in their records. The University Record Hearing Committee shall conduct a hearing in accordance with the procedures outlined in Public Law 93–380, as amended.
- 4. The substantive judgment of a faculty member or administrator about a student's work, as expressed in grades and/or written evaluations, is not within the purview of this policy statement. Such challenges by students may be made through the regular administrative channels already in existence for such purposes.

VII. Responsibility of University Officials

- University officials in charge of student files are responsible for the reasonable care and protection of such files in accordance with University policy. This includes the responsibility for the release of confidential information only to authorized persons.
- 2. A log sheet, indicating the inspection or release of a student's file, must be kept in the student's file.
- University officials may classify student materials and records under their supervision as active or inactive as circumstances warrant. At the discretion of the official in charge, inactive records may remain in the file but need not be circulated. Inactive records may be
- 4. A university official may take the initiative in an attempt to purge unfavorable evaluations, or opinion records of a prejudicial nature, in a student's file. This may be done by returning the material to the person who submitted it or by requesting from the author that the material be destroyed.

VIII. University Officials Responsible for Student Records

The following university officials are responsible for student records within their respective administrative areas:

- 1. Provost and Vice-President for Academic Affairs
- 2. Vice-President for Student Development and Services
- 3. Vice-President for Administration and Finance
- 4. Vice-President for University Advancement

These officers are responsible for the maintenance of all official student records under their jurisdiction in accordance with the policies of this statement and the relevant state and federal laws. If further information is required, a student should contact the appropriate university official.

Tuition

Pennsylvania Residents

Full Time Graduate (per semester)

for 9 to 15 Credits \$1,890.00 for each additional Credit 210.00

Part Time Graduate (per semester)

for each Credit (less than 9) 193.00

Non-Pennsylvania Residents

Full Time Graduate (per semester)

for 9 to 15 Credits \$3,305.00 for each additional Credit 367.00

Part Time Graduate (per semester)

for each Credit (less than 9) 367.00

Transcript Fee (per transcript) \$3.00

NOTE: Summer tuition is billed at part time rates on a per credit basis.

Room and Board

Room (per semester)	
Single	\$1,508.00
Double	1,123.00
Triple	902.00
Board (per semester)	
19 meals	\$1,140.00
14 meals	1,088.00
125 meal block	1,152.00

Off-Campus Dining Plans

Board (per semester)

- (Por sexiosion)	
19 meals	\$1,140.00
14 meals	1088.00
7 meals	700.00
125 meal block	1,018.00
Dine Dollars Plan	\$50.00
(minimum starting balance)	

Fees

Student Association Fee

Graduate

6 or more credits	\$85.00
1 to 5 credits	\$35.00

Student Union Building Fee (Undergraduate and Graduate)

9 or more credits	\$81.00
6 to 8 credits	41.00
1 to 5 credits	21.00

University Service Fee

Graduate

6 or more credits	85.00
1 to 5 credits	50.00

Student Center Operations and Maintenance Fee

Graduate	
9 or more credits	\$75.00
6 to 8 credits	52.00
1 to 5 credits	38.00

Academic Support Fee

- and the same of	
Fall/Spring	
9+ credits	\$180.90
8 credits	160.80
7 credits	140.70
6 credits	120.60
5 credits	100.50
4 credits	80.40
3 credits	60.30
2 credits	40.20
1 credit	20.10

^{*}Southpointe students should contact the Southpointe Center office for fee information.

Summer/Special Sessions (per credit) \$7.00

NOTE: All university tuition, fees and room and board rates are subject to change upon proper approval of the Council of Trustees and/ or the Board of Governors,

Payment Information

Students who take advantage of early/rolling registration will receive a billing statement with instructions by mail. Students who enroll at residual registration should be prepared to make payment at the time of registration.

Payment at Residual Registration

All fees will be assessed at the time of registration. Payment may be made by cash, check, money order, or certified bank draft made payable to California University of Pennsylvania, or by VISA, MasterCard, or Discover Card. If financial aid has been awarded, this amount will be deducted from the bill. Payment plans (with initial payment) may be contracted at this time.

Payment Plans

Payment plans are available each semester. Payment plans enable you to pay your costs on a monthly basis. Payment plan information and contracts will be included with each semester bill.

Third Party Billing

Some companies and government agencies pay tuition directly to the university. If tuition is to be paid in this manner, please supply authorizing forms or letters to the Bursar's Office.

Veterans Deferment

Military veterans receiving G. I. Bill benefits may request deferment, if needed, from the Veterans Affairs office.

University Refund Policy

This refund policy applies to any student who withdraws or changes enrollment status after their first semester of attendance at California University. Students who meet this basic criteria will have their university charges calculated according to the following schedule:

Soliodulo.	
Time of withdrawal or drops:	Refund
First 10% (in time) of the enrollment period	90%
11% to 25% (in time) of the enrollment period	50%
26% to 50% (in time) of the enrollment period	25%
after 50% (in time) of the enrollment period	0%

Pro-Rata Refund Policy

This refund policy applies to any student who meets the following criteria: receives federal financial aid; attends the university for the first time; and withdraws or changes enrollment status on or before the 60 percent point of the enrollment period. Students who meet all three criteria will be assessed university charges (tuition and fees, room and board, etc.) equal to the portion of the enrollment period completed.

Schedule of Pro-Rata Refunds

personal or a construction	
Time of withdrawal or drop:	Refund
Prior to the second day of classes	100%
First 10% (in time) of the enrollment period	90%
First 20% (in time) of the enrollment period	80%
First 30% (in time) of the enrollment period	70%
First 40% (in time) of the enrollment period	60%
First 50% (in time) of the enrollment period	50%
First 60% (in time) of the enrollment period	40%
After the 60% (in time) of the enrollment period	0%

NOTE: Financial aid recipients should refer to "refund/repayment policies" located in the Financial Aid section of the catalog.

Late Registration Fee

Students who register after the first day of the semester will be charged a \$25.00 late registration fee.

Late Payment Fee

A late payment fee of \$25.00 will be assessed when a student fails to pay the required fees by the due date or when a student fails to pay according to an approved payment plan.

Return Check Charge

A \$25.00 fee will be charged for any check which is made payable to California University of Pennsylvania and returned by the bank.

Degree Fee

A fee of \$10.00 must be paid by each candidate for a degree from California University of Pennsylvania. A student is not permitted to complete graduation from the university until this fee has been paid.

FINANCIAL AID

Mission Statement

The primary mission of the Financial Aid Office at California University of Pennsylvania is to provide financial planning and assistance to students and their families in meeting the costs of education. In fulfilling this mission, each student will be given careful consideration and the university will determine financial assistance based on federal, state, and institutional guidelines. Financial aid programs have been established to provide access to higher education with guidelines to insure fairness in disbursing available funds to qualifying students. The Financial Aid Office strives to insure that courteous, timely, and accurate financial aid services are delivered to all students seeking assistance from our office.

Location & Office Hours

The Financial Aid Office is located on the first floor of the Azorsky Administration Building. The office hours are 8:00-4:00, Monday through Friday. Appointments are encouraged but a daily on-call counselor is available to assist walk-ins. Students can contact the Financial Aid Office by calling 724-938-4415 or by Fax at 724-938-4551. In addition, a 24-hour voice mail and question/answer box telephone system is available to assist students and parents with general financial aid information or to request financial aid materials.

How to Apply

About Financial Aid

A college education is one the most important investments a student and family can make. You and your family will be expected to contribute as much as you can from your own resources (income, savings, and assets) to help meet your college expenses.

The purpose of financial aid is to help graduate students meet his/her educational expenses that cannot be met through their own resources. Financial aid can be either need-based or non-need-based. The results of the Free Application for Federal Student Aid (FAFSA) along with the cost-of-education will determine whether a student has financial need.

There are four main sources of financial aid. These include the federal government, the state government, and the institution and private entities. The federal government is by the far the largest source of financial aid. The Federal Stafford Loan is the only federal program that graduate students can qulify for at California University

Eligibility Requirements

In order to be eligible for most federal financial aid programs, you must meet the following eligibility requirements:

- have financial need, except for some loan programs.
- have a high school diploma or a General Education
 Development (GED) Certificate, pass a test approved by
 the U.S. Department of Education, or meet other
 standards established by your state and approved by the
 U.S. Department of Education.
- be enrolled or accepted for enrollment as a regular student working towards a degree or certificate in an eligible program.
- be an U.S. citizen or eligible non-citizen.
- have a valid Social Security Number.
- make satisfactory academic progress.
- sign a statement of educational purpose and a certification statement indicating that you neither are not in default on a student loan nor owe an overpayment on a grant. Both statements are found on the FAFSA.
- register with the Selective Service, if required. You can register online at the Selective Service System 's WWW site. (http://www.sss.org)

Completing the FAFSA

Each year, you must complete the Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA. The 1999-2000 FAFSA or Renewal FAFSA is available now. Prior year aid recipients will receive a renewal version of the FAFSA that can be used to apply for federal financial aid for the new award year. The Renewal FAFSA will be sent to the address you used on your 1998-99 FAFSA and will have some information about you preprinted as well as items you must update. If you do not receive your Renewal FAFSA or you are a new aid applicant, you must complete a blank 1999-2000 FAFSA. You can obtain the 1999-2000 FAFSA from a high school guidance counselor, public library, or the financial aid office of a college or university, including the Financial Aid Office at California University.

It is important that you read the instructions before completing your FAFSA because the instructions should answer most of your questions. If, after reading the instructions that accompany the FAFSA, you need help completing your form, there are several places you can contact to receive assistance. You can call 1-800-4-FED-AID (1-800-433-3243), consult your high school guidance counselor, or contact the Financial Aid Office.

Please Note: California University does not have an institutional financial aid application.

FAFSA on the Web

FAFSA on the Web is an electronic version of the 1999-2000 Free Application for Federal Students Aid (FAFSA) or the Renewal FAFSA. (http://www.fafsa.ed.gov)

The "FAFSA on the Web" site uses the (domestic) version of Netscape Navigator 3.0 or higher, which keeps a student's information private and secure during transmission over the Internet. Students wanting to complete their 1999-2000 FAFSA via the web can do so after January 1, 1998. After transmitting an application over the Internet, students mail their signed signature page to the Department. The CPS will determine their eligibility for financial aid within 72 hours after receiving the completed application. FAFSA on the Web has a customer service line (1-800-801-0576) where users may check the status of their applications and receive assistance with hardware, software, and transmission.

The Benefits of FAFSA on the Web

- FAFSA on the Web is free.
- Students can save their application information to diskette so that it can be completed and transmitted later.
- FAFSA on the Web does not require software to be installed, so it takes less time before students can actually use the application.
- Students can access the FAFSA on the Web page from anywhere, including school or home, making it more convenient to complete the application.
- FAFSA on the Web automatically edits applicant answers before transmitting, resulting in better information and fewer applications rejected by the CPS.
- FAFSA on the Web uses skip logic, so it will only ask students those questions that they need to answer.
- FAFSA on the Web can support an unlimited number of users, allowing thousands of students to apply at once.

Renewal Financial Aid Applicants

As a renewal financial aid applicant, you have two choices in completing your 1999-2000 Renewal FAFSA. You can complete a paper version of the Renewal FAFSA or submit an electronic version of the form over the Internet. To use the electronic version you will need an Electronic Access Code (EAC). You can obtain your EAC by visiting the Department of Education's website at http://www.fafsa.ed.gov Error! Bookmark not defined. and follow the link to "Requesting an EAC." Your EAC will be mailed to you within 7 to 10 days after you have submitted the required information. Once you obtain an EAC, you can access the electronic version of your Renewal FAFSA at the website listed above. The electronic version is generally processed within 7 to 14 days.

Both versions of the Renewal FAFSA contain preprinted information that you and your family (if applicable) reported last year, making it faster and easier for you to complete. Please <u>carefully</u> review and <u>update</u> any preprinted information, which needs to be changed for the 1999-2000 school year. Special attention should be given to the "School Information" section (Step Five). You must fill in the oval "YES" box wherever California University is listed in order for our office to receive your 1999-2000 FAFSA record. You must provide new information for any questions with an arrow pointing to the 1999-2000 column.

After you Apply

FAFSA Results

The federal government will process your Free Application for Federal Student Aid (FAFSA) and electronically send the results to the Financial Aid Office provided you listed California as one of the schools to receive the results of your FAFSA. You should receive a paper Student Aid Report (SAR) in the mail approximately two weeks after the federal processor receives your FAFSA. You should review the SAR to see if any corrections are necessary. Otherwise, you can keep the SAR for your records.

 When you apply for Federal student aid the information reported on the FAFSA is used in a formula approved by Congress. This Federal formula determines a student's Expected Family Contribution (EFC), the amount the family (student and parents, if applicable) is expected to contribute toward the student's education. The basic elements included in determining the EFC are:

√ contribution from the student's income and assets √ number of members in the household √ number of family members enrolled at least halftime in college

You can obtain an estimate of your EFC yourself. The lower your EFC, the more financial need you will have. The lowest EFC possible is zero; the highest is 99,999 or above. The Federal Stafford Loan is the only federal program that graduate students can qualify for at California University of Pennsylvania. Therefore, a graduate student's EFC is used to determine a student's Stafford Loan eligibility according to the following equation.

Cost of Attendance less: Expected Family Contribution less: Other Aid Received = Stafford Loan Eligibility

Verification

Some of our financial aid applicants are selected in a process called verification. During this verification process, the FAO office must verify the accuracy of FAFSA data reported by students. If your FAFSA is selected for verification by the federal government, we will notify you and tell you exactly what documents we need from you. Typically, students selected for verification will receive an award packet, however these awards tentative (estimate only) pending the completion and outcome of verification. Federal Stafford Loans are not certified until the verification process has been completed.

Cost of Attendance

Each year the University establishes a total "cost of attendance" budget based on a student's housing status (commuter, dormitory, of off-campus), enrollment status (full-time or part-time), and residency status (in state or out-of-state). The cost of attendance budget represents the total educational expenses a student my incur while attending our University, and is a critical element in determining a student's eligibility for Federal Stafford Loan Assistance. The elements of this budget are both "direct" institutional expenses (tuition/fees and/or University room/board), as well as "indirect/living costs" (off-campus housing, books/ supplies, and/or personal expenses) not billed by the University.

Listed below are the "estimated" 199-2000 direct costs charged to full-time student living on-campus students for an academic year:

Graduate	In-State	Out-of-State
Tuition & Fees	\$4,597	\$7,475
Room Fees (double room)	\$2,182	\$2,182
Board Fees (14 meal plan)	\$2,150	\$2,150
Total Estimated Direct Costs	\$8,929	\$11,807

In some cases, we can build an individual budget for a student or add additional educational expenses with appropriate documentation. Some of the more common expenses for which we can adjust a budget include the following:

- art supplies
- costs associated with studying abroad
- · dependent child care

In order to discuss having your budget adjusted, you would need to obtain appropriate documentation detailing the additional expenses and contact the FAO to schedule an appointment with a counselor. Please Note: The indirect/living expenses a student actually incurs will vary significantly from student to student. A student's program of study, year-in-school, housing/board arrangements, student's budgeting skills, and many other variables will affect a student's total expenses within this budget element. The University determines the indirect/living costs for each student type based on data collected from students, local bookstores, and local landlords. This data is analyzed to arrive at "average" expenses incurred by most students.

Award Letters

California University typically starts the awarding process for graduate students in late May of each year. Award Letter Packets are mailed once we have received the results of your FAFSA and we have determined that you are making Satisfactory Academic Progress for financial aid purposes.

For students who have not been accepted and/or their FAFSA has not been received at the point the awarding process begins, our office will send award packets to these students throughout the summer as their file becomes complete (accepted to the University and receipt of FAFSA record). Please Note: Only accepted students receive an award packet.

Financial Aid Programs

Graduate students at California University can qualify for limited assistance from federal, university, and private aid programs. Listed below are those financial aid programs that are available to assist you in meeting your education expenses at California University.

Loans

About Loans

Student loans are a major source of financial aid for many students. All loans, including student loans, represent debts that must be repaid; however, most student loans do not go in to repayment until after you leave school or graduate. In addition to delayed repayment, most student loans have relatively low interest rates, several repayment options from which to choose, circumstances under which you can postpone repayment, and other favorable terms and conditions. Students loans can be thought of as an investment in your future as long as you are prepared to meet your repayment responsibilities. Failure to repay your student loans will have serious adverse consequences.

It is true that most students would prefer not to borrow; but student loans represent the largest source of financial aid assistance available to students today. Building a budget is one of the most important aspects of student loan borrowing. When borrowing, it is important to carefully plan your budget so that you only borrow what you need, keep track of the total amount borrowed each year, and have some idea as to how you will pay your loans back when the time comes. The "Loan Estimator" and "Repayment Calculator" are two electronic tools that can help you with this task. In addition, the Career Services Office can provide you with information concerning entry level salaries in most fields.

Federal Family Educational Loan Programs (FFELP)

In order to apply for any type of FFELP (subsidized and/or unsubsidized loan), your must complete the <u>Free Application for Federal Student Aid (FAFSA) or the Renewal FAFSA</u> for the appropriate school year and meet all general student eligibility requirements necessary to receive federal financial aid.

In addition, you can receive a loan if you are a regular student (must be admitted to California University as a degree seeking student; non-degree students are not eligible), enrolled in an eligible program of study, and attending at least half-time each term. Half-time enrollment is defined as six hours for undergraduate students and five graduate hours for graduate students.

Federal Stafford Loan Program (Subsidized/Unsubsidized)

The Federal Stafford Loan that you, the student, can borrow in your own name can be either subsidized or unsubsidized or a combination of both. In order to qualify for a subsidized loan, you must have financial need. To determine if you have financial need, your Expected Family Contribution, which is determined by the results of your FAFSA, is subtracted from the cost-of-education. Also, any other aid that you are receiving or expected to receive is subtracted from the cost-of-education to determine if you have any remaining financial need in order to qualify for a Federal Subsidized Loan. If you do qualify for a subsidized loan, the federal government pays the interest on the loan, i.e., subsidizes the loan, while you are in school, during your six month grace period prior to repayment and during any authorized period of deferment.

Students without financial need are eligible for the Federal Stafford Unsubsidized Loan. This means that you will be responsible for the interest on the loan from the time you receive the funds until the loan is paid in full. You have the option of allowing the interest to accumulate, or accrue, on the loan while you are in school and during your six-month grace period before repayment. You also have the option of paying the interest on the loan as it accumulates. If you decide to delay interest repayment, the interest that accumulates will be "capitalized", that is, will be added to your loan principal when you begin repayment. This means your total loan principal will increase. It is better to pay the interest, if you can, because you will save money in the end. However, not all students can afford to pay the interest while still in

school and that is why you have the option of letting the interest accumulate.

Graduate Loan Borrowing Chart

Base Subsidized & Unsubsidized Yearly Maximums: Graduate \$8,500

Subsidized & Unsubsidized Lifetime Maximums:

Graduate: \$8,500

Subsidized & Unsubsidized Yearly Maximums:

Graduate & Professional: \$10,000

Additional Unsubsidized Lifetime Maximums:

Combined Undergraduate & Graduate: \$73,000

Application Process (Master Promissory Note)

Step 1: File the electronic or paper version of the FAFSA.

Step 2: In most cases, California University will pre-certify your loan eligibility for a Federal Stafford Loan before you file an Federal Stafford Master Promissory Note (MPN). PHEAA (the state guaranty agency) will send you a pre-printed MPN indicating your maximum loan eligibility (subsidized and/or unsubsidized) as determined by our office. The Financial Aid Office will base your Stafford Loan eligibility on your grade level, financial need, and annual and aggregate loan borrowing. However, the student's loan amount cannot exceed the student's annual loan limit under the Stafford Loan Program (see "Stafford Loan Borrowing Chart" listed below).

Step 3: Complete the borrower section of the MPN. Please be sure that all questions are complete and that the student signs and dates the MPN.

Step 4: Submit the completed MPN to PHEAA Loan Division. If applying for a Stafford Loan through an non-PHEAA-approved lender, submit the MPN to the Financial Aid Office at California University.

Step 5: Once the Financial Aid Office has certified the MPN, the lender will authorize the disbursement of loan proceeds (Electronic Funds Transfer [EFT] or check) at the appropriate time. The lender will send a "Disclosure Statement" informing the student of the amount, type, and

expected disbursement date of the loan proceeds. In addition, the disclosure statement will give the student the opportunity to cancel or reduce the amount of the Stafford Loan. Finally, all first-time Stafford Loan borrowers are required to complete an "Entrance Interview" before loan proceeds can be disbursed.

Private Education Funding (Alternative Loans)

In addition to the federal loan programs, there are also private sources of educational loans. These are typically private, credit-based loans sponsored by banks and state agencies or private guarantors. Typically, the results of the FAFSA are not used in determining eligibility for these programs. The following are two lending institutions that specialize in low-interest alternative educational loans.

PNC Resource Loan

Application and information regarding this alternative loan can be obtained by contacting the Financial Aid Office or PNC Bank at 1-800-649-6867 or by visiting their website at: www.eduloans.pncbank.com

National City/Terri

Application and information regarding this alternative loan can be obtained by contacting the Financial Aid Office or Terri at 1-800-255-8374 or by visiting their website at www.teri.org

Employment

Graduate Assistantships

Graduate students may find employment opportunities within the University through the Graduate Assistantship Program. This program provides full-time graduate students with opportunities to work in various offices and departments on campus. Both paid and unpaid assistantships are available for interested students. In order to accommodate the demands of both academic and personal schedules, a variety of paid assistantship options are available. Students interested in a graduate assistantship should contact the Office of the School of Graduate Studies and Research for an application and additional information.

Private Assistance

Scholarships/Fellowships

There are also many other agencies and organizations which provide financial assistance. These include civic clubs, fraternal organizations, religious groups, employers, organizations, unions, etc.

Electronic Scholarship Search Engines

The Financial Aid Office staff is frequently asked the fooling questions:

- "Which awards made by California University might I qualify to receive?"
- "Are there other scholarships I should pursue?"
- "If so, where can I get a listing of them and then obtain an application?"

We trust that the links provided below will assist you in your search.

Fast WEB

is the largest and most complete scholarship search on the Internet. It provides access to a searchable database of more than 400,000 private sector scholarships, fellowships, grants, and student loans available to students.

March 25

is a simple and fast scholarship resource locator. Students develop a profile of themselves to locate scholarships that best match their qualifications.

Other Scholarship

will take you to other scholarship search engines.

Disbursement of Financial Aid

Crediting Financial Aid to a Student's Account

For initial billing purposes "estimated" Stafford Loan awards do appear on the billing statement in order to assist the student in determining the balance owed, if any, to the University. However, a Federal Stafford Loan MPN is not processed until all requested forms are received and verification is completed. Once the loan has been processed, the lender will send the loan proceeds via check or Electronic Finds Transfer (EFT) to the University. These funds will be applied to the student's account once the student has met all student eligibility criteria, e.g., enrolled at least half-time, enrolled in eligible program.

How Registration Affects Your Financial Aid

Federal regulations and institutional guidelines require students to be registered before any financial aid monies can be disbursed. In addition, federal and state financial aid programs specify minimum enrollment requirements in order for a student to receive any (maximum or partial) assistance from these programs. These minimum enrollment requirements are broken into four enrollment classifications: full-time, three-quarter-time, half-time, and less-than-half-time. The chart below indicated the number of credits used to determine a student's enrollment status.

ENROLLMENT STATUS	NUMBER OF CREDITS REGISTERED
Full-Time	9 Credits Or More (Graduate)
Three-Quarter-Time	7 To 8 Credits (Graduate)
Half-Time	5 To 6 Credits (Graduate)
Less-Than-Half-Time	Less Than 5 Credits (Graduate)

In order to qualify for assistance from the Federal Stafford Loan program students must be enrolled at least half time.

Financial Aid Refunds

Financial aid that exceeds the amount the student owes to the University, e.g., tuition & fees, dorm & dinning expenses, will be disbursed to the student in the form of a refund check. This refund can be used to cover non-institutional educational costs such as books & supplies, off-campus housing and transportation expenses. Typically, these refunds will be available starting with the second week of the semester if you have satisfied the eligibility requirements for each award.

Financial Planning

Students planning to attend California University of Pennsylvania should be aware that financial aid refunds is not available until the second week of the semester for which the funds are intended. Students should plan to come to the university with enough personal money for early semester

purchases (book, material, art supplies, etc.) without depending upon financial aid funds.

Maintaining Financial Aid Eligibility

Satisfactory Academic Progress Policy

Purpose of Policy

Federal regulations require all institutions that administer Title IV student assistance programs to monitor the academic progress toward a degree of those students applying for or receiving assistance form those programs. All California University graduate students applying for Federal Stafford Loans (Subsidizied/Unsubsidized) must meet the standards stated in this policy, regardless of whether or not they previously received aid.

Satisfactory Academic Progress (SAP) standards include three elements: 1) maximum time frame within which a degree or certificate must be granted, (2) minimum credit hours earned preacademic year, and (3) minimum cumulative grade point average (g.p.a.).

Review Period

The review of a student's "Satisfactory Academic Progress" (SAP) standing occurs annually at the end of the spring semester. A student's SAP standing will be based on his/her academic performance during the academic year [fall and/or spring semester(s)]. Students who are not making satisfactory academic progress are typically notified in early summer.

Maximum Time Frame

Maximum time frame is defined as the required length of time it will take a student to complete a degree program based on the appropriate enrollment status (full-time, three-quarter time, or half-time). For a student to remain eligible for federal aid, the student must conform to the following time frame for completion of a Graduate Degree:

Enrollment Status * Number of	Eligible Semesters
full-time (9 or more credits)	5 semesters
three-quarter time (7 to 9 credits)	7 semesters
half-time (5 to 6 credits)	9 semesters

Minimum Earned Credit Hours

In order to monitor a student's progress toward completing a degree I a prescribed amount of time, a measure of annual progress has been established. The minimum earned credit hours component requires student aid applicants and recipients to successfully earn a minimum number of credit hours per year based on a student's enrollment status. A student must meet the following earned credit hour standards based on his/her enrollment status:

Enrollment Status † Total Earned Credits Per Year full-time (9 or more credits) 18 credits three-quarter time (7 to 8 credits) 14 credits half-time (5 to 6 credits) 10 credits

*Assumes a student's enrollment status (full-time, threequarter time, or half-time) remained constant throughout the academic year. The minimum earned credit hours standard listed above will differ if the student's enrollment status varies throughout the academic year.

Minimum Cumulative Grade Point Average

Each semester the University reviews the "grade point average" (g.p.a.) of each student in order to determine whether the student is maintaining "good academic standing". The University requires that all graduate students maintain a minimum grade point average of 3.0 in order to achieve "good academic standing".

Students who are academically dismissed are considered <u>ineligible</u> for Title IV Federal aid. A student who is academically dismissed and is approved for re-admission to the University will attend without the benefit of Title IV federal aid. A student remains <u>ineligible</u> for Title IV federal until he/she achieves the minimum 3.0 g.p.a. or successfully files a SAP appeal (see Appeal Procedures contained in this Policy).

Special Grades

I (Incomplete): An incomplete grade does not earn credit or influence the grade point average in the semester in which the course work was taken. If an incomplete has been resolved and the student has earned a passing grade, the credit and grade will be counted toward satisfying the minimum credit hour standards and grade point average requirements.

W(Withdrawal): no withdrawal categories earn credit(s) toward graduation or toward satisfying the credit requirements of the SAP Policy.

P(Pass): If this grade is awarded, the credits apply toward graduation and toward satisfying the minimum earned credit hour standards, but will not impact a student's grade point average.

Financial Aid Probation

If a student fails to achieve the Satisfactory Academic Progress Standards during the review period as outlined in this Policy, the student will be placed on **financial aid probation**. Students who fail to meet progress standards should refer to the "Financial Aid Suspension" section listed below. Students will remain on financial aid probation for the next award year and will be eligible to receive federal Title IV financial aid assistance during this probationary period. Please Note: Students will not be granted financial aid probation for two consecutive academic years.

Financial Aid Suspension

If a student fails to achieve the minimum earned credit hour standard and/or the minimum grade point average upon the conclusion of a student's financial aid probationary period, the student will be placed on financial aid suspension. Students placed on financial aid suspension (progress) will become **ineligible** for future Title IV assistance until the student's SAP deficiency is resolved.

Eligibility for Reinstatement

In order to be reinstated, the student must successfully achieve the required grade point average as mandated by the SAP Policy and/or successfully make up his/her credit hour(s) deficiency at his/her own expense. The student may use the summer or any semester of the academic year to resolve their deficiency.

Students who make up their deficiency must complete and return the "Satisfactory Academic Progress Form", along with all required documents, to the Financial Aid Office before clearing their deficiency status. Only successfully earned credits, not grades, are transferable to California from another approved institution.

Appeal Procedures

All Title IV recipients have a right to appeal a financial aid suspension decision by submitting a "SAP Appeal Form" to the Financial Aid Office. Written explanation of the reason(s) why the student failed to meet the Satisfactory Academic Policy Standards must be attached to the appeal form. Appeal forms are available in the Financial Aid Office. The deadline date for filing an appeal is the third week of classes in any semester that the student is applying for financial aid. Students will be notified of a decision within 7 to 10 days after filing the appeal form. If the appeal is denied, a student may file a final spill to the Director of Financial Aid. This appeal must be filed within 10 working days from the date of the first denial letter.

Refund/Repayment Policy

Definition of "Refund"

The term "refund" is defined as financial aid and/or cash payments minus the amount retained by the institution for the student's actual period of enrollment. Any student who withdraws from the University may be eligible for a refund of university charges, according to the published refund policy. However, a student who withdraws from the university may be required to refund a portion of the financial aid to the appropriate financial aid program(s).

University Refund Policies

The University catalog states that official withdrawal from the University may entitle the student to a refund of University fees. The amount of the refund of University fees will be based on one of two refund policies: Pro-Rata or Federal. The student's enrollment status at the time of withdrawal from the university will determine which refund policy will be used. Listed below is the definition of each policy and appropriate schedule:

Definition of Pro-Rate Refund Policy

This refund policy applies to any student who receives Federal Financial Aid and Withdraws from the university during his/her first semester in attendance at California University. Students who meet this definition will be assessed university charges (tuition and fees, room and board, etc.) equal to the portion of the enrollment period (up to and including the ninth week of the semester) completed by the student.

Schedule of Pro-Rata Refunds:

If the student withdraws:	Refund %
Prior to the second day of classes	100%
First 10% (in time) of the enrollment period	90%
First 20% (in time) of the enrollment period	80%
First 30% (in time) of the enrollment period	70%
First 40% (in time) of the enrollment period	60%
First 50% (in time) of the enrollment period	50%
First 60% (in time) of the enrollment period	40%
After the 60% (in time) of the enrollment period	! 0%

Definition of "Federal Refund" Policy

The following refund policy applies to any student who withdraws after his/her first semester of attendance at the university. Students who meet the criteria stated above will have University charges (tuition, fees, room, and board) assessed according to the following schedule:

Schedule of Federal Refunds:

If the student withdraws:	Refund%
First 10% (in time) of the enrollment period	90%
11% to 25% (in time) of the enrollment period	50%
26% to 50% (in time) of the enrollment period	25%
After 50% (in time) of the enrollment period	0%

Note: Federal regulations require the university to use the refund policy (Pro Rata or Federal) that provides the largest

refund to the federal aid program(s). Therefore, both the formulas are applicable in determining a refund for a federal. aid recipient who withdraws during his/her semester of attendance.

Distribution Policy

If it is determined that a portion of a student's eligible refund of University charges consists of student financial aid, California University's policy will return the student financial aid portion of that refund to the program(s) in the following order:

- 1. Federal Stafford Loans
- 2. University Scholarship/Grants/Waivers
- 3. Other Student Aid Programs

Repayment Policy

Definition of "repayment"

"Repayment" is defined as the amount the student must repay of student financial aid that given directly to the student as cash disbursement to cover non-institutional costs.

Repayment Procedures

A student who withdrawals and received a cash disbursement of student financial aid for non-institutional charges may be required to pay all or a portion of the student financial aid to the appropriate financial aid program(s). The following policies are used in determining the amount to be repaid by the student, if any.

- 1. Non-institutional housing/board costs are pro-rated based on the remaining months in the semester.
- 2. One half of the academic year allowance for books, supplies and personal/miscellaneous expenses are considered to be expanded if a student begins classes.
- 3. Transportation costs are pro-rated on the remaining weeks in the semester.
- 4. Once pro-rated expenses are determined for that semester, the institution will subtract this amount from the total cash disburses to the student for the payment period. If it is determined that a repayment is necessary, the appropriate program will be refunded and student will be billed. Please Note: If the repayment owed is \$100 or less, the student will not be billed.

Financial Aid Glossary

1040 Form, 1040A Form, 1040EZ Form: The Federal Income Tax Return that is required to be filed by each person who received income during the previous year.

Academic Year: The period of time school is in session, consisting of 30 weeks of instruction.

Appeal: An appeal is a formal request made by the student to have a financial aid administrator review your aid eligibility and possibly use Professional Judgment to adjust the figures. In the event of the death of a parent, unemployment, or other unusual circumstances, you should file an appeal.

Award Letter: An official letter issued by the Financial Aid Office that lists the financial aid awarded to the student. You are required to check the awards you wish to receive, sign the award letter, and return it to the Financial Aid Office.

Bursar's Office: The Bursar's Office is the University office responsible for the billing and collection of University charges.

Cost Attendance: The Cost of Attendance (COA), also known as the cost to education or "budget", is the total amount used to calculate a student's aid eligibility. This amount includes tuition and fees, room and board, allowances for books and supplies, transportation, and personal and incidental expenses.

Commuter Student: A student who resides at home with his/her parents and commutes to school daily.

Dependent Student: A student who is 23 years old or younger and is supported by their parents. A parent refusing to provide support for their child's education is not sufficient for the child to be declared independent.

Disbursement: Disbursement is the release of loan funds to the school for delivery to the borrower.

Disclosure Statement: The disclosure statement is a statement from the lending institution that provides the borrower with information regarding the approval amount of the loan, interest rate, origination and insurance fees, and any other finance charges incurred.

Electronic Funds Transfer: Used by some lenders to wire funds for Stafford Loan proceeds directly to participating schools without requiring a check for the student to endorse.

Enrollment Status: Indication of total credits scheduled for an enrollment period. For financial aid purposes, you must be enrolled at least half-time to receive aid.

Expected Family Contribution (EFC): The Expected Family Contribution is the amount of money that the family is expected to contribute to the student's education. Congress bases this on the Federal Methodology need analysis formula dictated.

Financial Aid Transcript: the Financial Aid Transcript is a record of any federal aid received by the student at each post-secondary school attended.

Free Application for Federal Student Aid (FAFSA): The FAFSA is used to apply for all need-based aid.

Financial Aid Package: This includes any aid such as grants, scholarships, loans, and work-study offered to the student to assist in the funding of their education.

Gift Aid: Gift aid is financial aid that is not repaid, such as scholarships and grants.

Grant: Type of financial aid based on financial need that a student does not repay.

Independent Student: An independent student must meet at least on of the following criterion:

- Age 24 or older
- · Veteran of the US Armed Forces
- Enrolled in a graduate or professional program beyond a bachelor's degree
- Married
- Orphan or ward to the court or a ward of the court until age 18
- Legal dependents other that spouse for which you are responsible

Loan: A loan is a type of financial aid that must be repaid with interest to a lending institution of your choice.

Need: The difference between the Cost of Attendance and the Expected Family Contribution is known as financial need.

Scholarship: A scholarship is gift aid that is not repaid.

Stafford Loan: A Stafford Loan comes in two forms, unsubsidized and subsidized. Students are required to pay interest on an unsubsidized loan; whereas, the government pays the interest on a subsidized loan while the student is in school, during the six-month grace period, and during any deferment periods.

Subsidized Loan: A subsidized loan is a loan which the government pays the interest on the loan while the student is

in school, during a six-month grace period, and during any deferment periods. Subsidized loans are based on need, and may not be used to finance the family contribution.

Unmet Need: Unmet need is difference between the student's award and the full cost of tuition.

Unsubsidized Loan: An unsubsidized loan is a loan that the government does not pay the interest. The borrower is responsible for the interest on an unsubsidized loan from the date the loan is disbursed, even while the student is still in school.

Untaxed Income: contribution to IRAs, Keoghs, taxsheltered annuities, and 401 (k) plans, as well as worker's compensation and welfare benefits. US Department of Education: The US Department of Education administers several Federal student financial aid programs, including the Federal Pell Grant, the Federal Work-Study Program, the Federal Perkins Loan, the Federal Stafford Loan, and the Federal PLUS Loan.

Verification: Verification is a review process, which the Financial Aid Office determines the accuracy of the information provided by the student and parents on their FAFSA. During this process, the student will be required to submit requested documentation.

Financial Aid Pebruary annary Timeline March April May June **Items to Complete:** Gather Financial Aid documentation necessary for the completion of the FAFSA Obtain FAFSA (Free Application for Federal Student Aid) Mail FAFSA to the Federal Processor, THE EARLIER THE BETTER! (Keep a copy for your records) Review your Student Aid Report (SAR) for errors and make any corrections Provide the Financial Aid office with all requested information. Financial Aid award letters mailed to students, who must sign and return letter FAO. MAY 1- FAFSA Proirity Deadline for consideration for Federal Campus-based Programs (FWS, FSEOG & Perkins) MAY 1- FAFSA deadline for PHEAA grant eligibility Receive results of PHEAA Grant Eligibility Receive billing statement from Bursar's Office Due Date for paying Fall semester bill

ATHLETIC TRAINING

The Department of Health Science and Sport Studies is housed in Hamer Hall and includes a new athletic training facility with state-of-the-art modality and rehabilitation equipment. In addition, the cadaver anatomy laboratory, equipped with numerous anatomical models and slides, is connected to a spacious classroom.

Master Of Science In Athletic Training

The Master of Science degree program is intended for postbaccalaureate students who want more intensive background and clinical experience in the specialized area of athletic training. For admission into this program, the graduate student must have completed and/or meet the following general requirements:

- 1. A bachelor's degree from a four year, accredited college or university.
- A minimum 3.00 undergraduate grade point average, based on a 4.00 scale. If a prospective student does not meet this requirement, candidates will be considered if they have a minimum QPA of 2.50 and have scored a 40 or higher on the Miller Analogies Test.
- 3. Acceptance to the School of Graduate Studies and Research.
- All applicants must be certified or eligible for certification by NATA in order to be considered as a candidate for admission into the program.

In addition, candidates must have a recorded minimum of 800 clock hours of clinical experience under the direct supervision of a NATA certified athletic trainer.

Graduate Assistantships

Graduate assistantships are available with the athletic training intern being assigned to local high schools and colleges for their clinical experience. Students who have a background covering a variety of male and female sports will be given preference. Applicants selected will be expected to provide their own transportation to and from the school to which they are assigned. Several more assistantship programs are available each year.

If you have questions about this program, please phone or write the Department of Health Science and Sport Studies California University of Pennsylvania, 250 University Avenue, California PA 15419-1394, 724-938-4562, or the School of Graduate Studies and Research, 724-938-4187.

Curriculum

I. Athle	etic Training: 25 credits	
ATE 500	Pharmacology for the	
	Allied Health Sciences	2
ATE 700	Gross Anatomy of the Extremities	4
ATE 710	Advanced Athletic Training	3
ATE 715	Sports Law	3
ATE 720	Sports Therapy	4
ATE 730	Internship in Sports Medicine I	3
ATE 735	Internship in Sports Medicine II	3
ATE 745	Contemporary Issues in Athletic Training	3
II. Resea	arch: 12 credits	
ATE 800	Methods of Research in the	
	Allied Health Sciences	3
ATE 810	Thesis Seminar	3
EDP 600	Statistical Methods	2
RES 849	Master's Thesis	4

BIOLOGICAL AND ENVIRONMENTAL SCIENCES

Master of Science Degree in Biology

The Master of Science degree program is intended for graduate students who want intensive training in specialized areas of the life sciences. A student entering this program is expected to have completed extensive course work in biology, mathematics and the physical sciences. After students have been admitted to the program, they are given the opportunity to select a graduate adviser and a research program to meet their educational and professional needs. Graduate students completing this degree program are prepared to enter biological careers in research, allied health professions, teaching, and to pursue advanced degrees in life, veterinary, environmental and mineral sciences.

Admission to the Program

The student should have the following:

- 1. A QPA of at least 3.0 on a 4.0 system.
- 2. Two semesters of organic chemistry with no lower than a C grade for each course.
- 3. One semester of physics.
- One mathematics course beyond college algebra (calculus is preferred).
- 5. A minimum of 24 credits in the life sciences with a grade of C or better.
- Two letters of recommendation from faculty who can attest to the candidate's academic capabilities and promise for success in graduate school (submitted to Graduate Committee).
- 7. Student must write a letter to Departmental Graduate Committee specifying the following:
 - a) Reason for pursuing a graduate degree in life sciences.
 - b) Future study/career plans for the life sciences.
 - c) Which program option the student intends to pursue.
 - d) Area of research interest.
 - e) Need of financial assistance (assistantship and/or tuition waiver).
 - f) Other information the student deems important for graduate committee members to learn more about his/her suitability for graduate study.
- 8. A student must take the Graduate Record Examination (Verbal and Quantitative) and the Advanced test in Biology prior to admission into the department. Students having a combined score of 900 on the verbal and quantitative sections of the GRE meet minimal requirements for admission into the graduate program.

Time Requirement to Complete Degree

Full-time students are expected to complete all requirements (course work and research) for their degree within two to three years. Part-time students should complete all requirements for their degree within six years.

Students requesting extensions to finalize their programs must substantiate reasons for the additional time. All courses taken seven years from the first semester of matriculation will not count towards graduation.

Three Options in the Master of Science Program

Option A: Thirty-three credits including the Master's Thesis.

Option B and C: Students enrolling in the Nurse Anesthesiology Program at Washington Hospital, Washington, PA

- Option B: Student must have a nursing degree and be admitted into the Nursing Anesthesiology Program at Washington Hospital, Washington, PA. Student must complete 40 credits (four for the Master's Thesis), 18 credits will be taken at Washington Hospital.
- Option C: Student must possess a Degree in Nursing and be a Certified Registered Nurse Anesthetist. Student must be accepted as qualified by Washington Hospital and possess the nursing requisites for entrance into the Biology Graduate Program.

Student must complete 40 credits (four for the Master's Thesis), and pass 16 credits of examination at Washington Hospital, Washington, PA.

Ancillary graduate level courses amounting to as many as six credits in fields closely related to the major program may be substituted for Biology courses, with the approval of the research adviser and the Departmental Graduate Committee.

Curriculum

(An asterisk indicates a requirement.)

I. Biolog:	ical Science: Two credits from the following	
Biology o	courses:	
BIO 575	Water Pollution Biology	4
BIO 700	Cellular Ultrastructure	3
BIO 706	Bacteriology	4
BIO 708	Microbal Ecology and Physiology	4
BIO 710	Immunology	3
BIO 720	Human Genetics	3
BIO 721	Biochemistry I	4
BIO 723	Animal Histology	4
BIO 724	Embryology	4
BIO 725	Molecular Biology	4
BIO 727	Ichthyology	4
BIO 738	Herpetology	4
BIO 740	Ornithology	4
BIO 741	Advanced Research Studies	1-4
BIO 742	Scientific Photography	2-4
BIO 745	Entomology	4
BIO 746	Parasitology	4
BIO 751	Economic Botany	4
BIO 757	Plant Systematics	4
BIO 758	Plant Anatomy and Morphogenesis	4
BIO 765	Design and Analyses	3
BiO 766	Biometry	3
BIO 768	Techniques in Electron Microscopy	4
BIO 772	Mammalogy	4
BIO 778	Organic Evolution	3
BIO 788	Cell Biology	4
BIO 795	Seminar in Biology	2
BIO 800	Methods of Research in Science	2
II. Researc	h: Six credits	
*BIO 800	Methods of Research in Science	2
*RES 840	Master's Thesis	4

Master of Education Degree in Biology

The Master of Education is a professional degree designed primarily to improve biology in the public schools. Inservice biology educators are encouraged to become more effective in their profession by taking course work and participating in other life science experiences in the Department of Biological and Environmental Sciences and in several other departments of the School of Graduate Studies and Research of California University.

This program offers a broad variety of academic, pedagogical, and research opportunities for the biology teacher.

Graduate students, in close consultation with the department's graduate committee and their advisers, select academic courses which will best broaden each student's understanding in biology. Certain other courses are aimed at updating curriculum and instruction methodologies of the life sciences.

Research opportunities are provided to all graduate students, either in an academic or in a pedagogical area.

Admission to the Program

The student should have the following:

- 1. A QPA of at least 3.0 on a 4.0 system.
- 2. Two semesters of organic chemistry with no lower than a C grade for each course.
- 3. One semester of physics.
- 4. One mathematics course beyond college algebra (calculus is preferred).
- 5. A minimum of 24 credits in the life sciences with a grade of C or better.
- Two letters of recommendation from faculty who can attest to the candidate's academic capabilities and promise for success in graduate school (submitted to the Graduate Committee).
- 7. Student must write a letter to the Departmental Graduate Committee specifying the following:
 - a) Reason for pursuing a graduate degree in life sciences.
 - b) Future study/career plans for the life sciences.
 - c) Which program option the student intends to pursue.
 - d) Area of research interest.
 - e) Need of financial assistance (assistantship and/or tuition waiver).
 - f) Other information the student deems important for graduate committee members to learn more about his/her suitability for graduate study.
- 8. A student must take the Graduate Record Examination (Verbal and Quantitative) and the Advanced test in Biology prior to admission into the department. Students having a combined score of 900 on the verbal and quantitative sections of the GRE meet minimal requirements for admission into the graduate program.

Time Requirement to Complete Degree

Full-time students are expected to complete all requirements (course work and research) for their degree within three years. Part-time students should complete all requirements for their degree within six years.

Students requesting extensions to finalize their programs must substantiate reasons for the additional time. All courses taken seven years from the first semester of matriculation may not count towards graduation.

Three Options in the Master of Education Program

Option A: Thirty-three credits, with the Master's Thesis. Option B: Thirty-three credits, with the Research Project. Option C: Forty credits, with research-oriented courses (determined by advisor).

After twenty credits have been accumulated, a change in		BIO 758	Plant Anatomy and Morphogenesis	4	
option requires permission of the student's advisor and the		BIO 765	Design and Analyses	3	
	Committee.		BIO 766	Biometry	3
			BIO 768	Techniques in Electron Microscopy	4
			BIO 772	Mammalogy	4
Curri	culum		BIO 778	Organic Evolution	3
	sk indicates a requirement.)		BIO 788	Cell Biology	4
(All astern	sk muleates a requirement,		BIO 795	Seminar in Biology	2
I Profession	onal Education: Ten credits required in all opti	ions:	BIO 800	Methods of Research in Science	2
1. Require			III. Resear	rch: 4-6 credits, according to the Option	selected:
_	Statistical Methods	2	Option A:		
	Curriculum & Methods of Teaching Biology		*BIO 800	Methods of Research in Science	2
221 020	in High School	2	*RES 849	Master's Thesis	4
2. Four cre	edits to be chosen from among:		Option B:		
	Philosophy of Education	2		Methods of Research in Science	2
	General History of Education	2	*RES 829	Research Project	4
	Comparative Education	2			
	Educational Sociology	2	Option C:		
	Development and Organization of the		*BIO 800	Methods of Research in Science	2
DDI 057	Curriculum for Secondary Schools	2		Seminar in Biology	2
	Julian 101 201 201 201 201 201 201 201 201 201		*Either Sta	atistics beyond EDP 600 or GEE 537	
3. Two cre	edits from one of the following:		or Comput	ter Science	2
	Advanced Educational Psychology	3			
	Psychology of Growth and Development	3			
	Advanced Psychology of Learning	3			
	3,				
II. Biolog	ical Science: Field of Specialization				
Option A:					
Option B:					
	19 credits				
Option B: Option C:	19 credits				
Option C:	19 credits	4			
	19 credits 24 credits	4 3			
Option C: BIO 575 BIO 700	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure				
Option C: BIO 575	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology	3			
Option C: BIO 575 BIO 700 BIO 706 BIO 708	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure	3 4			
Option C: BIO 575 BIO 700 BIO 706	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology	3 4 4 3			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology	3 4 4 3			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern	3 4 4 3			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology	3 4 4 3 n			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics	3 4 4 3 3			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I	3 4 4 3 3 3 3			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology	3 4 4 3 3 3 3 3 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I	3 4 4 3 3 3 3 3 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology	3 4 4 3 3 3 3 3 4 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology	3 4 4 3 3 3 3 3 4 4 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725 BIO 727	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology Ichthyology	3 4 4 3 3 3 3 3 4 4 4 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725 BIO 727 BIO 738	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology Ichthyology Herpetology Ornithology	3 4 4 3 3 3 3 3 4 4 4 4 4 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725 BIO 727 BIO 738 BIO 740 BIO 741	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology Ichthyology Herpetology Ornithology Advanced Research Studies	3 4 4 3 3 3 3 3 4 4 4 4 4 4 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725 BIO 727 BIO 738 BIO 740	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology Ichthyology Herpetology Ornithology Advanced Research Studies	3 4 4 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725 BIO 727 BIO 738 BIO 740 BIO 741 BIO 742	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology Ichthyology Herpetology Ornithology Advanced Research Studies Scientific Photography Entomology	3 4 4 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 2-4			
Option C: BIO 575 BIO 700 BIO 706 BIO 708 BIO 710 BIO 713 BIO 717 BIO 720 BIO 721 BIO 723 BIO 724 BIO 725 BIO 727 BIO 738 BIO 740 BIO 741 BIO 742 BIO 745	19 credits 24 credits Water Pollution Biology Cellular Ultrastructure Bacteriology Microbial Ecology and Physiology Immunology Applied and Theoretical Concepts in Modern Biology Population Genetics Human Genetics Biochemistry I Animal Histology Embryology Molecular Biology Ichthyology Herpetology Ornithology Advanced Research Studies Scientific Photography	3 4 4 3 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4			

BIO 757 Plant Systematics

BUSINESS AND ECONOMICS

Master of Science Degree in Business Administration

The demand for skilled managers in the business community today far outstrips the availability of qualified candidates. The scope of business activities has assumed a level of sophistication where the more significant opportunities require skills and abilities that exceed the capabilities possessed by most baccalaureate degree holders.

The Master of Science Degree offered in Business Administration directly addresses the needs of today's progressive business enterprise. This rigorous program is designed for the student desirous of advanced managerial skill development in the areas that significantly affect modern business enterprises.

Successful completion of this curriculum will effectively equip the graduate for a more challenging role in contemporary business enterprises.

The program is particularly appropriate for those currently employed as well as those recent graduates who desire to expand their current level of marketable skills. With many of the courses being offered at appropriate hours for those currently employed, this advanced degree is easily within the reach of most who are willing to devote the time and effort required, on either a full or part-time basis.

I. Foundation Courses (15 Credits)

CSC 105	Microcomputer & Application Software	3
ACC 601	Survey in Accounting*	3
ECO 601	Survey in Economics*	3
MAT 225	Business Statistics	3
MKT 301	Principles of Marketing	3

II. Master's Degree Curriculum (39 Credits)

11. Master's Degree Curriculum (39 Credits)				
(a) Core Co	urriculum (30 credits)			
ACC 711	Managerial Accounting	3		
MGT 712	Organizational Behavior	3		
MGT 721	Production Management	3		
or				
MGT 751	International Business Management	3		
MGT 731	Industrial Relations	3		
FIN 711	Financial Management	3		
MKT 711	Marketing Management	3		
ECO 711	Microeconomic Analysis	3		
ECO 712	Macroeconomic Analysis	3		
BUS 771	Quantitative Methods	3		
BUS 799	Strategic Management	3		

(b) Electives (9 credits)**

Choose an	y three (3) from the following courses:	
ACC 721	Financial Accounting	3
ACC 731	Tax Concepts and Planning	3
BUS 741	Business Law	3
BUS 743	Business, Society, and Government	3
ECO 721	Managerial Economics	3
ECO 731	Econometric Methods	3
ECO 741	Industrial Organization	3
FIN 531	Bank Management	3
FIN 712	Advanced Financial Management	3
FIN 721	Investment Management	3
FIN 731	Financial Markets & Institutions	3
MGT 711	General Management	3
MGT 721	Production Management***	3
MGT 726	Management of Technological Innovation	3
MGT 742	Human Resource Management	3
MGT 751	International Business Management***	3
MKT 721	Research Methods in Marketing	3
MKT 731	Marketing for Nonprofit Organizations	3
MKT 751	Advertising Management	3
MKT 761	Business Marketing Strategy	3
IMT 707	Industrial Safety	3
IMT 709	Time and Motion Study	3
IMT 765	Operations Research	3
IMT 790	Management Internship	3
BUS 795	Seminar	3
BUS 797	Research Studies in Business	3

^{*}Students who have completed Principles of Economics and Accounting with a B or better grade can be exempted from taking ECO 601 and ACC 601.

^{**}Must include BUS 743 unless it has already been taken at undergraduate level. Approval of the advisor is required.

^{***}One of these must be taken as a core course.

COMMUNICATION DISORDERS

Master of Science Degree in Communication Disorders

The Master of Science Degree in Communication Disorders is intended for post-baccalaureate students who are seeking specialized training in this discipline. It is fashioned for those interested individuals who are preparing to become certified by the American Speech, Language and Hearing Association, as well as for those who wish to become more proficient speech-language pathologists.

The Department of Communication Disorders (CMD) is accredited by the Council of Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). The department is located in the modern Learning Research Center. The facilities lend themselves to ample space for study, clinical therapy, and research.

Admission Requirements

Consideration for admission to the graduate program in CMD requires the bachelor's degree and the completion of an undergraduate program in CMD/speech-language pathology (such as the undergraduate program at California University). A minimum 3.0 (overall and in the major) GPA is necessary for consideration of the applicant for admission to the graduate program. All applicants must submit official Graduate Record Examination scores and three letters of recommendation from their undergraduate professors to be considered for admission.

Admission to the Communication Disorders Program is competitive, and only a limited number of students are selected for admission. The Communication Disorders Department has fall admission only. Application deadline is February 15.

Students who wish to continue in the graduate program in CMD must maintain a 3.0 or better GPA, and must receive satisfactory evaluations from their practica supervisors.

A total of 42 graduate credit hours is required for the Master of Science degree in Communication Disorders. A passing score on the Speech-Language Pathology Praxis Series Test is a requirement for graduation.

Students who choose a research option (Research Project or Thesis) will have two credit hours (Research Project) or four credit hours (Thesis) applied toward their total number of credits for the Master's Degree.

Curriculum

CMD 600	Research and Professional Practice in Spee	ch/
	Language Pathology*	3
CMD 701	Language Disorders in Adults*	3
CMD 702	Language Disorders in Children*	3
CMD 703	Fluency*	3
CMD 704	Articulation Disorders*	3
CMD 705	Voice Disorders*	3
CMD 708	Neurology*	3
CMD 710	Advanced Clinical Methods***	5-12
CMD 718	Advanced Audiology	3
CMD 725	Aural Rehabilitation	3
CMD 762	Non-Vocal Communication	3
CMD 763	Communication Problems of Special Group	ps 3
CMD 764	Instrumentation	3
CMD 765	Dysphagia*	3
CMD 766	Traumatic Brain Injury	3
EDP 600	Statistical Methods **	3
RES 829	Research Project	2
RES 849	Master's Thesis	4

Total credits for graduation — 42

- * Required.
- ** Required if not taken by student at undergraduate level.
- *** Only 6 credits may be counted toward the degree.

If you would like further information about these programs, phone or write the Department of Communication Disorders, California University of Pennsylvania, 250 University Avenue, California PA 15419-1394, 724-938-4175, or the School of Graduate Studies, 724-938-4187.

COMMUNICATION STUDIES

Master of Arts Degree in Communication

The Master of Arts in Communication provides advanced interdisciplinary study in the communication field and serves as (1) a professionally-oriented terminal masters degree or (2) preparation for advanced graduate study or professional study.

The program is jointly sponsored by the Departments of Communication Studies, English, and Theatre and is administered by a Coordinating Committee and an Advisory Committee consisting of representatives from each sponsoring department.

Admission to the Program

To be admitted to the graduate program in Communication, an applicant must:

- 1. Verify successful completion of a baccalaureate degree;
- 2. Verify an acceptable undergraduate quality-point average;
- 3. Submit scores from the Graduate Record Exams;
- Document any appropriate experience relevant to this program including but not limited to prior course work and professional experience; and
- 5. Provide samples of his or her writing.

Applications will be evaluated by the Coordinating Committee as they are received, and applicants may be admitted to the program at the beginning of the Fall, or Spring Semesters or the Summer Sessions.

Structure of the Program

The program of study is divided into (1) Core, (2) Emphasis, (3) Thesis, and (4) Comprehensive Examinations. Thirty six semester credits are required for the degree.

Core:	15	Credit	L_
I Are:	- 13	t real	ГC

CMG 800	Introduction to Graduate Study in Communication
CMG 701	Communication Perspectives and Paradigms

CMG 702 Rhetoric and Linguistics

CMG 703 Dramatic Theory and Criticism

CMG 704 Seminar in Communication

Emphasis: 18 Credits

In addition to the core, each student will develop an emphasis as his or her major area of study. A student's emphasis will be designed by the student in consultation with his or her advisor and submitted to the Coordinating Committee as the student's Tentative Degree Plan.

The emphasis for each student must adhere to the following guidelines:

- All graduate level courses designated with the CMG prefix may count toward the degree.
- No more than 12 credits in dual-listed CMG courses may count toward the degree.
- No more than six credits of graduate level courses from other departments or institutions may count toward the degree.
- No more than six credits of directed study may count toward the degree.
- No more than six credits of internship or practica may count toward the degree.
- Compensatory or prerequisite courses taken in preparation for graduate level work will not count toward the Masters degree.

Thesis: Three Credits

The Thesis can be (1) a systematic investigation of a research problem designed to make an original contribution to the student's field of study (Option 1) or (2) a practical or applied demonstration of the student's mastery of information, skills, procedures, or techniques connected to his or her field of study (Option 2).

Comprehensive Examinations:

Each student will complete comprehensive examinations consisting of a written component and an oral defense designed to test his or her (1) knowledge base, (2) ability to synthesize content, (3) capacity for problem solving, and, (4) ability to effectively communicate orally and in writing.

Comprehensive examinations are administered by the Coordinating Committee.

Tentative Degree Plan and Application for Candidacy

Before a student has completed 12 graduate credits, he or she must submit to the Coordinating Committee a Tentative Degree Plan outlining the Emphasis and Thesis Option. After a student has completed a minimum of 18 credits with a minimum QPA of 3.0 and before completing 27 credits, he or she must submit an application for Admission to Candidacy. Students who fail to submit these documents or who do not receive approval from the Coordinating Committee will not be allowed to register for subsequent courses in this program.

COUNSELOR EDUCATION

If you would like further information about any of these programs, call or write the Department of Counselor Education, California University of Pennsylvania, 250 University Avenue, California PA 15419-1394 (724) 938-4123, or the Graduate School, at (724) 938-4187.

E-mail: Brusoski@cup.edu http://www.cup.edu/couns_ed

The Department of Counselor Education offers the following graduate programs (1) Master of Education degree and certification as an elementary or secondary school guidance counselor; (2) Master of Science degree with specialization in community agency counseling; (3) Certification as an elementary or secondary school counselor. All degrees offer a minimum of 48 credits.

The National Board of Certified Counselors (NBCC) recognizes course taught in the counselor education department for continuing education credits. The program prepares students to take the National Counselor Exam (NCE).

Admission to the Programs

Besides meeting the general requirements for admission into the Graduate School, prospective students must also: (1) have a 3.0 undergraduate quality-point average, or a score of 45 on the Miller Analogies Test; (2) have earned 12 credits in psychology or a related field; (3) submit three letters of recommendation; (4) write a 1, 000-word psychobiograhy; (5) provide a one-page resume of work and education; (6) submit all transcripts.

Graduate students may not register for more than nine Counselor Education (CED) credits before admission to the department for any of the programs offered.

Within the first 12 hours the graduate student must have successfully completed CED 701 Organization and Administration of Counseling Services, CED 702 Counseling Theory, and CED 714 Experiential Group Process.

Candidacy is determined by a majority of the faculty of the program; a meeting with the faculty may be required of the candidate.

Practicum Requirements

The Department of Counselor Education requires a minimum of two days per week for a fifteen week term of professional experience at a field site appropriate to the graduate student's program and career goals. Customarily, this assignment will be during the hours of the normal working day. Only grades of A or B in practicum will be counted towards successful completion of the Master's degree.

Elementary and Secondary Guidance students must do practicum at the grade levels appropriate for their certification. Time adjustments may be made for those holding current Pennsylvania school certifications.

Comprehensive Examinations

In order to achieve certification, a graduate student must satisfactorily pass each part of a two-part examination and be recommended by a majority of the department faculty. Consequently, a graduate student pursuing a program in Elementary or Secondary Guidance may receive a Master of Education degree but not necessarily obtain certification.

Details concerning the comprehensive examination and other procedures are available in the CED Student Handbook.

The National Board of Certified Counselors currently recognizes courses taught in the Counselor Education Department for continuing education credits.

Master of Education Degree and Certification in Elementary and Secondary Guidance

Area I (Core Courses): 33 credits CED 701 Organization and Administration \ Counseling Services 3 CED 702 Counseling Theory 3 CED 714 Experiential Group Processes 3 CED 705 Developmental Group Counseling 3 CED 708 Substance Abuse & Addiction 3 CED 710 Counseling Skills & Techniques 3 CED 786 Seminar in Career Information 3 CED 703 Consulting Theory 3 CED 711* Practicum I 3 CED 712* Practicum II 3

*Please refer to the Counselor Education student handbook which is available through the counselor education department for details and exceptional circumstances..

CED 787 Integrated Seminar

Area II:	Social & Cultural Foundations: Three credi	
required	Social & Cultural Foundations: Three credit	LS
GEE 525	Community Problems of Health & Safety	3
Area III:	Psychological Foundations: Six credits req	uired
PSY 721	Advanced Tests & Measurements	3
PSY 752	Fundamentals of School Psychology	3
Area IV:	Research: 4 credits required	
EDP 600	Statistical Methods	2
RES 800	Methods of Research	2
	Elective (with advisor approval)	2
	Education Degree and	
Certification	on in Secondary Guidance	
This progr	am is for those who intend to counsel studen	ıts in
	nior-high or high-school, grades 7 through 12	
Area I (Co	ore Courses): 33 credits	
CED 701	Organization and Administration of Counse	eling
	Services	3
CED 702	Counseling Theory	3
CED 714	Experiential Group Processes	3
CED 705	Developmental Group Counseling	3
CED 708	Substance Abuse & Addiction	3
CED 710	Counseling Skills and Techniques	3
CED 786	Seminar in Career Information	3
CED 703	Consulting Theory	3
CED 711*	Practicum I	3
CED 712*		3
CED 787	Integrated Seminar	3
	ocial and Cultural Foundations: Three credit	S
required	G P. 11	
GEE 525	Community Problems of Health & Safety	3
	Psychological Foundations: Six credits requ	
PSY 721	Advanced Tests & Measurements	3
PSY 752	Fundamentals of School Psychology	3
	Research: Four credits required	
EDP 600	Statistical Methods	2
RES 800	Methods of Research	2

Area V: Elective (with advisor approval)

Master of Science Degree in Community Agency Counseling

This program is intended for those who desire a professional position in agencies that provide care within the community. Such agencies provide services to the infirm, the handicapped, the aged, the incarcerated, the chemically dependent, and families.

Area I (Core Courses): 33 credits

CED 701	Organization and Administration of	
	Counseling Services	3
CED 702	Counseling Theory	3
CED 714	Experiential Group Process	3
CED 708	Substance Abuse & Addiction	3
CED 710	Counseling Skills & Techniques	3
CED 705	Developmental Group Counseling	3
CED 786	Seminar in Career Information	3
CED 703	Consulting Theory	3
CED 711	Practicum I (See Footnote*)	3
CED 712	Practicum II	3
CED 787	Integrated Seminar	3
Area II: S	Social & Cultural Foundations: Three credits	
required		
GEE 525	Community Problems of Health and Safety	3
	· ·	
Area III:	Psychological Foundations: Six credits require	ed
	·	
CED 717	Diagnosis and Treatment in Mental Health	3
PSY 721	Advanced Tests and Measurements	3
Area IV: F	Research: Four credits minimum required	
EDP 600	Statistical Methods	2
RES 800	Methods of Research	2
		_
Area V: El	ective (with advisor approval)	2
		_

EARLY CHILDHOOD EDUCATION

The Master of Education Degree in Early Childhood EDP 600 Statistical Methods Education provides three options for interested students. 2 ECE 759 Research in Early Childhood Track A — Master of Education with Early Childhood EDP 656 Computer Oriented Research 2 Teaching Certification is designed for students seeking RES 829 Project 2 certification from Infancy through Grade 3. RES 849 Thesis Track B — Master of Education in Early Childhood Administration and Supervision is available to students *REOUIRED COURSES already certified in Early Childhood, who are interested in becoming a supervisor or a child care center administrator. Students who are certified teachers in another specialty are This is a non-certifying program. not required to take EDE 795. Applicants must have a 3.0 QPA or a score of 35 on the Minimum 30 graduate credits with a project or thesis. Miller Analogies Test for admission to the program. Minimum 36 graduate credits without project or thesis. Maximum 59 graduate credits. Students may be required to take undergraduate courses when graduate courses are Curriculum Track A: Master of Education with Early Childhood unavailable. **Teaching Certification** Track B: Early Childhood Master of Education Degree in I. General and Professional Education: Administration and Supervision (This is a non-certifying PSY 711 Advanced Educational Psychology 3 program.) PSY 712 Advanced Psychology of Learning 3 I. General and Professional Ed ECE 748 Child Growth and Development (or) 3 PSY 711 Advanced Educational Psychology or 3 PSY 713 Psychology of Growth and Development 3 PSY 712 Advanced Psychology of Learning 3 ESP 501 Introduction to Exceptionality 3 ESP 501 Introduction to Exceptionality 3 EDP 610 Educational Sociology 2 EDP 610 Educational Sociology 2 EDF 700 History and Background of EDE 700 Historical Background of the Elementary Schools 2 Elementary School 2 EDP 605 Philosophy of Education 2 EDP 606 General History of Education 2 II. Early Childhood Professional Core: EDE 701 Developing and Organizing EDE 745 Instructional Strategies 3 Elementary School Curricula 3 ECE 748 Child Growth and Development 3 ADP 720 Elementary Curriculum 2 ECE 728 Early Childhood Education Seminar II. Early Childhood Professional Core: 2 EDE 728 Problems in Health and Physical Ed. 2 ECE 729 Language Development & Emerging Literacy3 ECE 730 Early Childhood Math Seminar 3 ECE 724 Reading and Communication Arts Seminar 3 III. Administration: (15 credits) EDE 745 Instructional Strategies 2 ECE 727 Administration & Directorship of Early EDE 738 Children's Literature and Reading 2 3 Childhood Centers ECE 728 Early Childhood Education Seminar 2 ADP 762 Supervision 2 ECE 726 Early Childhood Field Experience 2 2 ECE 749 Parent Involvement ECE 749 Parent Involvement 2 ECE 726 Early Childhood Field Experience 2 *EDE 795 Student Teaching Internship 9 ADP 731 School Law & Regulations 2 GEE 528 Child and the Expressive Arts 3 ECE 759 Research in Early Childhood 2 ECE 732 Adv. Thematic Teaching in EC RSU 685 Group Processes 2 *Students must pass the General Knowledge and Communi-IV. Research and Related Disciplines cation sections of the National Teachers test prior to student RES 800 Methods of Research 2 teaching EDE 706 Evaluation and Measurement in the Elementary School 2 III. Research (8-10 credits required) GEE 537 Computer Science 2 *RES 800 Methods of Research 2 EDP 600 Statistical Methods 2 *EDE 706 Evaluation and Measurement in the EDP 656 Computer Oriented Research 2 **Elementary School** 2 RES 829 Research Project 2

2

RES 849 Thesis

*GEE 537 Computer Science

EARTH SCIENCE

Master of Science Degree in Earth Science

The Master of Science degree with a major in Earth Science is a program intended for those students who desire more training in specialized areas of earth science or wish to broaden their present science background. A graduate student entering the program should have an undergraduate major in one of the sciences or in mathematics.

Applicants should have basic Earth Science courses, but deficiencies can be made up in consultation with the advisor. The advisor is assigned to the graduate student upon admission to the program, and the graduate student works closely with the advisor in designing a program of study.

The graduate student must apply for candidacy for the degree immediately after successfully completing six credits graduate work. The graduate student must pass a comprehensive examination.

The program offers two options: Option A, in which a Master's Thesis or Research Project is required, and Option B, in which neither a Master's Thesis nor a Research Project is required.

Option A requires at least 30 credits, including nine credits of required research courses and a minimum of 12 credits in Earth Science, including either two credits for the Research Project or four for the Master's Thesis.

Option B requires at least 36 credits, including nine credits of required research courses and a minimum of 12 credits in Earth Science, but not the Research Project or the Master's Thesis.

Curriculum

(An asterisk designates a required course.)

I. Earth Science Core:

*EAS 800	Methods of Research in Earth Science	3
*EAS 528	Quantitative Applications in Earth Science	3
*EAS 713	Applied Earth Science	3

II. Earth Science: Field of Specialization: a minimum of 12 credits from among the following:

EAS 527	Tectonics	3
EAS 541	Advanced Environmental Geology	3
EAS 547	Reservoir Evaluation	3
EAS 550	Regional Climatology	3
EAS 551	Invertebrate Paleontology	3
EAS 563	Coastal Geomorphology	3
EAS 720	Hydrology	3
EAS 725	Weather Analysis	3
EAS 740	Sedimentology	3
EAS 741	Stratigraphy	3
EAS 742	Structural Geology	3
EAS 751	Optical Mineralogy	3
EAS 755	Geochemistry	3
EAS 760	Field Problems in Earth Science	3
EAS 762	Field Problems in Hydrology	3
EAS 764	Field Course in Earth Science	VA
EAS 765	Field Course in Geology	VA
EAS 771	Field Mapping	3
EAS 780	Readings in Earth Science	3
EAS 781	Research in Earth Science	3
EAS 792	Seminar in Geology	3
EAS 794	Seminar in Meteorology	3
EAS 796	Seminar in Oceanography	3
GEO 520	Physiography of the United States	3
GEO 737	Geographic Information Systems	3
GEO 751	Geomorphology	3
GEO 752	Climatology	3
GEO 753	Physical Environment	3
GEO 767	Computer Cartography	3
GEO 768	Map & Aerial Photo Interpretation	3
GEO 770	Statistical Cartography	3
GEO 798	Seminar in Geography	3
RES 829	Research Project	2
RES 849	Master's Thesis	4

If you would like further information about any of these programs, phone or write the Department of Earth Sciences, California University of Pennsylvania, 250 University Avenue, California PA 15419-1394, 724-938-4180, or the Graduate School, at 724-938-4187.

ELEMENTARY EDUCATION

3

3

2

Students wishing to enroll in this program must have an undergraduate Q.P.A. of at least 3.0 or score 35 on the Miller Analogies Test.

Master's Degree in Elementary Education

The Master's Degree in Elementary Education is available to students who wish to broaden their knowledge of elementary education.

Curriculum I. General and Professional Education (16 credits) PSY 711 Advanced Educational Psychology PSY 712 Advanced Psychology of Learning PSY 713 Psychology of Growth and Development ESP 610 Educational Sociology (or approved substitute)

*ESP 501	Introduction to Exceptionality (req)	3
EDE 700	Historical Background of the	
	Elementary School	2
EDE 705	Development and Organization of the	
	Elementary School	2
EDE 701	Curriculum for Elementary School	3

II. Professional Core (30 credits) (required)			
EDE 728	Problems in Health and Physical Education	2	
EDE 737	Literature and Literacy K-12	3	
EDE 715	Recent Trends in Language Arts	3	
EDE 723	Instructional Strategies	3	
EDE 722	Introduction to Elementary Teaching Semina	ır2	
EDE 716	Problems in Elementary Social Studies	3	
EDE 718	Arithmetic in the Elementary School	2	

Trends in Elementary School Science	3
Developmental Reading in the	
Elementary School	2
Student Teaching Internship	9
	Elementary School

Students must pass the general knowledge and communication sections of the National Teachers Exam prior to student teaching.

III. Resear	rch (8 credits)	
RES 800	Methods of Research (required)	2
EDE 706	Evaluation and Measurement in the	

	Elementary School (required)	2
GEE 537	Computer Science (required)	2
EDP 600	Statistical Methods	2
EDP 656	Computer Oriented Research	2
Research I	Project	2
Thesis		4
Students w	who are certified teachers in another speci	ialty are
	ed to take EDE 795.	

Master of Education Degree with Elementary Teaching Certification

Students wishing to enroll in this program must have an undergraduate Q.P.A. of at least 3.0 or score 35 on the Miller Analogies Test.

The Master's Degree certification track is designed for students who have a baccalaureate degree and desire elementary teacher certification. This program is appropriate for teachers certified in other areas and for persons with an undergraduate degree outside of education.

Students who are not certified in Pennsylvania must pass the National Teachers' Examination.

Candidates for Pennsylvania certification must have evidence of undergraduate or graduate studies in mathematics, biology, physical science, environmental studies, U.S. history, geography, and economics.

If you would like further information about this program, phone or write the Department of Elementary Education at California University of Pennsylvania, 250 University Avenue, California PA 15419-1394, (724) 938-4135, or the School of Graduate Studies and Research at (724) 938-4187. Curriculum

Minimum 30 graduate credits with a project or thesis. Minimum 36 graduate credits without project or thesis.

I. Genera	l and Professional Education (16 credits)	
PSY 711	Advanced Educational Psychology	3
PSY 712	Advanced Psychology of Learning	3
PSY 713	Psychology of Growth and Development	3
ESP 610	Educational Sociology	
	(or approved substitute)	2
*ESP 501	Introduction to Exceptionality (req)	2
EDE 700	Historical Background of the	
	Elementary School	2
EDE 705	Development and Organization of the	
	Elementary School	2
EDE 701	Curriculum for Elementary School	3
II. Profess	sional Core (30 credits) (required)	
EDE 728	Problems in Health and Physical Education	2
EDE 737	Literature and Literacy K-12	3
EDE 715	Recent Trends in Language Arts	3
EDE 723	Instructional Strategies	3
EDE 722	Introduction to Elementary Teaching Semin	ar2
EDE 716	Problems in Elementary Social Studies	3
EDE 718	Arithmetic in the Elementary School	2
EDE 740	Trends in Elementary School Science	3
EDE 708	Developmental Reading in the	
	Elementary School	2
EDE 795	Student Teaching Internship	9
Students n	nust pass the general knowledge and commun	ica-
tion section	ns of the National Teachers Exam prior to stu	
teaching.		
	ch (8 credits)	
RES 800	Methods of Research (required)	2
EDE 706	Evaluation and Measurement in the	

Elementary School (required)

GEE 537	Computer Science (required)	2	
EDP 600	Statistical Methods	2	
EDP 656	Computer Oriented Research	2	
Research 1		2	
Thesis		4	
Students who are certified teachers in another specialty are not required to take EDE 795.			

ENGLISH

Master of Arts in English

An applicant for this program should have an undergraduate degree in English or have completed at least twelve credits in undergraduate upper-division courses in English. Upon satisfactory completion of six credits of graduate work in English, the graduate student should apply for candidacy.

Candidates may choose from two Concentrations:

Concentration I: American Literature/ British Literature/Criticism

I Research (6 hrs. required) ENG 800 Eng Research Methods ENG 849 Thesis

II Linguistics (3 hrs. required)

III Concentration (21 hrs. of the following): American Literature, British Literature, and Criticism

Total Hours: 30

Concentration II: English Education

I Research (6 hrs. required) ENG 800 Eng Research Methods ENG 849 Thesis

II English Education A (6 hrs. required) ENG 701 Com. Theory/Practice

ENG 711 Problems in the Teaching of Writing K-12

ENG 714 Evaluation Writ K-12

III English Education B (6 hrs. required)

ENG 707 Linguistics

ENG 708 Advanced Linguistics

ENG 710 History of English Language

IV Literature/Criticism (12 hrs. required—3 hrs. Criticism, 9 hrs. Literature)

Total Hours: 30

All graduate students should take ENG 800, Methods of Research, as early as possible in their course of study. All students must pass a comprehensive examination.

Linguistics courses include:

ENG 701	Composition Theory and Practice	3
ENG 705	Introduction to Old English	3
ENG 706	Middle English	3
ENG 707	Linguistics	3
ENG 708	Advanced Linguistics	3

ENG /10	History of the English Language	3
ENG 715	Chaucer	3
Literature	courses include:	
ENG 715		3
ENG 716	Middle English Drama	3
ENG 717	Shakespeare	3
ENG 718	Sixteenth-Century Non-Dramatic Literature	3
ENG 725	Non-Dramatic English Literature 1600-1660	3
ENG 726	Jacobean and Caroline Drama	3
ENG 727	Milton	3
ENG 735	English Literature 1660-1700	3
ENG 736	English Literature 1700-1744	3
ENG 737	English Literature 1744-1798	3
ENG 738	Eighteenth-Century English Novel	3
ENG 745	Romantic Poetry	3
ENG 746	Victorian Poetry	3
ENG 747	Nineteenth-Century Non-Fictional Prose	3
ENG 748	Nineteenth-Century English Novel	3
ENG 755	Colonial American Literature	3
ENG 756	American Renaissance	3
ENG 757	The Rise of Realism	3
ENG 758	Modern American Poetry	3
ENG 760	Cultural Backgrounds of American Literature	3
ENG 765	Modern American Novel	3
ENG 766	Modern British Novel	3
ENG 767	History of Literary Criticism	3
ENG 768	Modern British Poetry	3
ENG 770	Modern Drama	3
ENG 790	Seminar in Literary Criticism	3
ENG 795	Seminar in English Literature	3
ENG 796	Seminar in American Literature	3
ENG 799	Independent Study 1	-4

Master of Education in English

An applicant for this program should have a certificate to teach English or Communication and should have completed at least 12 credits in upper-division courses in English.

Upon satisfactory completion of six credits in English, the graduate student should apply for admission to candidacy.

The Master of Education degree requires a minimum of 36 credits. Apart from the sequence of two courses in methodology and research (see below), there is no further research requirement.

All graduate students should take ENG 800, Methods of Research, as early as possible in their course of study. All students must pass a Comprehensive Examination for the Master of Education degree.

The Master of Education program in English is quite flexible, so it is important that graduate students' course selection be coherent. Consequently, all graduate students should, in consultation with the English Graduate Coordinator, draw up their proposed course of study towards the beginning of their graduate work and adhere to it as closely as possible.

Curriculum

(An asterisk designates a requirement.)

I. Research: 3 credits (See also V below):	
*ENG 800 Methods of Research in English	3

II. English: A minimum of 18 credits, distributed as below

A: Linguis	stics: At least 6 credits, from among:	
ENG 701	Composition Theory and Practice	3
ENG 705	Introduction to Old English	3
ENG 706	Middle English	3
ENG 707	Linguistics	3
ENG 708	Advanced Linguistics	3
ENG 710	History of the English Language	3
ENG 715	Chaucer	3

B. Literature: At least 12 credits, from among:

B. Literat	ure: At least 12 credits, from among:	
ENG 715	Chaucer	3
ENG 716	Middle English Drama	3
ENG 717	Shakespeare	3
ENG 718	Sixteenth-Century Non-Dramatic Literature	3
ENG 725	Non-Dramatic English Literature 1600-166	0 3
ENG 726	Jacobean and Caroline Drama	3
ENG 727	Milton	3
ENG 735	English Literature 1660-1700	3
ENG 736	English Literature 1700-1744	3
ENG 737	English Literature 1744-1798	3
ENG 738	Eighteenth-Century English Novel	3
ENG 745	Romantic Poetry	3
ENG 746	Victorian Poetry	3 3
ENG 747	Nineteenth-Century Non-Fictional Prose	3
ENG 748	Nineteenth-Century English Novel	3
ENG 755	Colonial American Literature	3
ENG 756	American Renaissance	3
ENG 757	The Rise of Realism	3
ENG 758	Modern American Poetry	3
ENG 760	Cultural Backgrounds of American Literatur	re 3
ENG 765	Modern American Novel	3
ENG 766	Modern British Novel	3
ENG 767	History of Literary Criticism	3
ENG 768	Modern British Poetry	3
ENG 770	Modern Drama	
ENG 790	Seminar in Literary Criticism	3
ENG 795	Seminar in British Literature	3
ENG 796	Seminar in American Literature	3
ENG 799	Independent Study	1-4

III. Professional Education: a minimum of 6 credits

A: At least	t one of the following:	
EDP 600	Statistical Methods	2
PSY 711	Advanced Educational Psychology	3
EDP 616	Guidance and Counseling	2
PSY 713	Psychology of Growth and Development	3
EDP 618	Social Psychology	2
B: At least	one of the following:	
EDP 605	Philosophy of Education	2
EDP 606	General History of Education	2
EDP 608	Comparative Education	2
EDP 610	Educational Sociology	2

IV. Cognate Fields: A minimum of six credits (such as History or Psychology), some or all of which may be chosen from II or III above. ENG 711, Problems in the Teaching of Writing, K-13, or ENG 714, Evaluating Writing, K-12, or both can be chosen here.

V. Research: 3 credits (See also I above.)

*ENG 849 Research	3

GEOGRAPHY AND REGIONAL PLANNING

Master of Arts Degree in Geography and Regional Planning

The Master of Arts degree in Geography and Regional Planning is flexible, and allows for diversity in goal development. It enables a graduate with this degree to pursue a professional career in geography as well as to branch out into cognate areas such as government, industry and planning. This program accepts students with varied backgrounds and does not require the prospective graduate student to have an undergraduate major in geography.

The graduate student must apply for candidacy for the degree immediately after completing six credits of successful graduate work. The graduate student must pass a comprehensive examination.

The program offers two options: Option A, in which a Master's Thesis or Research Project is required, and Option B, in which neither a Master's Thesis nor a Research Project is required.

Option A requires at least 30 credits, including six credits of required research courses and a minimum of 15 to 18 credits in Geography, including either two credits for the Research Project or four for the Master's Thesis.

Option B requires at least 36 credits, including six credits of required research courses and a minimum of 18 credits in Geography, but not the Research Project or the Master's Thesis.

Curriculum

(An asterisk designates a required course.)

I. Research Courses: 6 credits as follows:

*GEO-EAS *GEO 800	Seminar Methods of Geographic Research	3
GEO 600	Methods of Geographic Resourch	
II. Geograph	y: Field of Specialization at least 12 credits	
from the foll	owing:	
GEO 520	Physiography of the United States	3
GEO 700	Philosophy of Geography	3
GEO 711	Demographic Analysis	3
GEO 712	Geography and Urban Politics	3
GEO 714	Urban Environment	3
GEO 729	Regional Economic Geography	3
GEO 733	Land Use Analysis	3

GEO 734	Site Selection	3
GEO 735	Marketing Geography	3
GEO 739	Regional Planning	3
GEO 737	Geographic Information Systems	3
GEO 738	Geography and Urban Policy	3
GEO 751	Geomorphology	3
GEO 752	Climatology	3
GEO 754	Physical Environment	3
GEO 765	Field Methods	3
GEO 766	Field Problems	3
GEO 768	Map and Aerial Photo Interpretation	3
GEO 769	Computer Cartography	3
GEO 770	Statistical Cartography	3
GEO 785	Readings in Geography	3
GEO 786	Research in Geography	3
GEO 789	Comprehensive Planning	3
GEO 791	Seminar in Regional Planning	3
GEO 798	Seminar in Geography	3
III. Research	(Option A): 8 to 10 credits	
+GEO/EAS		3
*GEO 800		3
*One of the	following:	
RES 829	Research Project	2
or		
RES 849	Master's Thesis	4
IV. Research	(Option B): 6 credits	
+GEO/EAS		3
*GEO 800		3

V. Cognate Courses: Graduate courses in related, or cognate, areas may be chosen, with the approval of the advisor.

IV. Comprehensive Examination: The Graduate student is required to pass a comprehensive examination.

+Any seminar offered by department.

Master of Education Degree in Geography and Regional Planning

The Master of Education degree in Geography is intended for those who wish to pursue a career of teaching at either the Elementary or the Secondary School level. The graduate student must apply for candidacy for the degree immediately after completing six credits of successful graduate work. The graduate student must pass a comprehensive examination.

The program offers two options: Option A, in which a Master's Thesis or Research Project is required, and Option B, in which neither a Master's Thesis nor a Research Project is required.

Option A requires at least 30 credits, including nine to 10 credits of Professional Education and 17 to 19 credits in Geography. Eight to ten of these Geography credits are in Research, including either two credits for the Research Project or four for the Master's Thesis.

Option B requires at least 36 credits, including nine to 10 credits of Professional Education and 18 credits in Geography, of which at least six are in Research, but not the Research Paper or the Master's Thesis.

Curriculum

(An asterisk designates a required course.)

I. Professional Education: 9 to 10 credits from the following:

*EDP 655	The Curriculum and Teaching of Geography	3
One of the t	wo following:	
EDP 605	Philosophy of Education	2
EDP 606	General History of Education	2
One of the f	ollowing:	
PSY 711	Advanced Educational Psychology	3
PSY 712	Advanced Psychology of Learning	3
An addition:	al course in Professional Education (ED	P) with
the approval	of the advisor.	

Π.	Geo	gra	ohv:

GEO 520	Physiography of the United States	3
GEO 700	Philosophy of Geography	3
GEO 711	Demographic Analysis	3
GEO 712	Geography and Urban Politics	3
GEO 714	Urban Environment	3
GEO 729	Regional Economic Geography	3
GEO 733	Land Use Analysis	3
GEO 734	Site Selection	3
GEO 735	Marketing Geography	3
GEO 739	Regional Planning	3
GEO 737	Geographic Information Systems	3
GEO 738	Geography and Urban Policy	3
GEO 751	Geomorphology	3
GEO 752	Climatology	3
GEO 754	Physical Environment	3
GEO 765	Field Methods	3
GEO 766	Field Problems	3

GEO 768	Map and Aerial Photo Interpretation	3
GEO 769	Computer Cartography	3
GEO 770	Statistical Cartography	3
GEO 785	Readings in Geography	3
GEO 786	Research in Geography	3 3 3
GEO 789	Comprehensive Planning	
GEO 791	Seminar in Regional Planning	3
GEO 798	Seminar in Geography	3
III. Research	h (Option A): 8 to 10 credits	
+GEO/EAS		3
*GEO 800	Methods of Geographic Research	3
*One of the	following:	
RES 829		2
or		
RES 849	Master's Thesis	4
IV. Research	(Option B): 6 credits	
+GEO/EAS		3
*GEO 800	Methods of Geographic Research	3
III. Research	(Option A): 8 to 10 credits	
+GEO-EAS	Seminar	3
*GEO 800	Methods of Geographic Research	3
*One of the	following:	
RES 829	Research Project	2
or		
RES 849	Master's Thesis	4
	(Option B): 6 credits	
+GEO/EAS		3
*GEO 800	Methods of Geographic Research	3

V. Cognate Courses: Graduate courses in related, or cognate, areas may be chosen, with the approval of the advisor.

VI. Comprehensive Examination: The graduate student is required to pass a comprehensive examination.

MATHEMATICS AND COMPUTER SCIENCE

Masters of Education Degree with Mathematics and/or Computer Science Emphasis

The Master of Education in Mathematics and Computer Science provides a candidate with academic experiences that enhance teaching skills, curriculum development skills, and knowledge of mathematics and/or computer science. Students in the program will develop research skills in the areas of mathematics and/or computer science curriculum and instruction and responsible leadership skills in the use of technology in the areas of mathematics and/or computer science. Students will also cultivate the skills necessary to remain current in curriculum, instruction, and assessment in the fields of mathematics and/or computer science. Graduates of the program will increase their competency as facilitators for students learning secondary mathematics and/or pre-college or community college levels of mathematics and/or computer science.

Admission Requirements

A graduate student's formal acceptance into the program is determined by the faculty of the Department of Mathematics and Computer Science. If applicants are considered deficient in some aspect of undergraduate preparation, the faculty will assign selected undergraduate courses to such students to remedy these deficiencies.

The program has two options: Option I, which requires at least 36 credits, but does not require a Master's Thesis or Research Project; Option II, which requires at least 30 credits (32 credits if the Thesis Option is elected), including a Master's Thesis or Research Project;

Curriculum

(An asterisk designates a requirement.)

A. Professional Education: Option I or II: 10 credits

A. I luics	nonal Education. Option 1 of 11. 10 crouts					
*One of th	*One of the following courses in psychology:					
PSY 711		3				
PSY 712		3				
PSY 713	Psychology of Growth and Development	3				
*The follo	wing courses, dealing with Multi-culturalism:					
EDP 610	Educational Sociology	2				
*The follo	wing courses, dealing with Special Education:					
ESP 501	Introduction to Exceptionality	3				
ESP 712	Seminar on Contemporary Trends and					
	Issues in the Education of Exceptional					
	Populations	3				
ESP 739	Field Experience Seminar in					
	Special Education	3				
*One of the two following courses, dealing with humanistic concerns:						
EDP 605	Philosophy of Education	2				
EDP 606	General History of Education	2				
B. Mathematics and Computer Science:						
Option I: A minimum of 21 credits from the following;						
Option II:	Option II: A minimum of 15 credits from the following:					

60111	_
Science I	3
Science II	3
	3
	Science I

CSC 777	Data Organizations	3	
CSC 778	Computer Systems' Architectural Structures	3	
	Programming with COBOL	3	
CSC 782	Advanced Programming with COBOL	3	
	Assembly Language	3	
GEE 537	Computer Science	2	
GMA 701	Real Variable Analysis I	3	
	Real Variable Analysis II	3	
GMA 716	Differential Equations I	3	
GMA 725	Theory of Numbers	3	
GMA 741	Linear Algebra	3	
GMA 743	Projective Geometry I	3	
GMA 751	Abstract Algebra	3	
GMA 755	Topology	3	
GMA 761	Mathematical Statistics I	3	
GMA 762	Mathematical Statistics Π	3	
GMA 785	History of Mathematics	2	
GMA 786	Computer Science for Teachers	2	
C. Researc	h: Option I: 6 credits; Option II: 6-8 credits		
Option I:			
-	Methods of Research	2	
	Statistical Methods	2	
*EDP 656	Computer-Oriented Research	2	
Option II:			
*RES 800	Methods of Research	2	
*EDP 600	Statistical Methods	2	
*EDP 829	Research Project	2	
or			
*EDP 849	Master's Thesis	4	

ADMINISTRATION PROGRAM FOR PRINCIPALS

Master of Education Degree in Elementary or Secondary School Administration and/or Certification as Elementary or Secondary School Principal

The Administration Program for Principals at California University provides graduate students with a unique and challenging opportunity to obtain a Master's degree in education and/or certification as an elementary, middle or secondary school principal. The program is competency-based and utilizes a variety of instructional modes.

Previous professional experiences and academic background are assessed to determine the program of studies and experiences each candidate must complete to receive a Master's degree in Education and certification or certification only for a candidate with a Master's degree.

Candidacy

This program is open to students with either a Bachelor's or a Master's degree. In addition to meeting the other requirements for admission to the School of Graduate Studies and Research, applicants must meet the following requirements: (a) have a minimum of one year professional experience in the elementary or secondary schools; (b) have an undergraduate Q.P.A. of 3.0 or higher or a score of 35 on the Miller Analogies Test, or a completed Master's Degree; (c) complete the Student Data Sheet; (d) submit a letter of endorsement from their principal or immediate supervisor.

After the applicants have been accepted into the School of Graduate Studies and Research, they will be interviewed by the faculty members of the program. Selected applicants will be allowed to enter the program by enrolling in the Orientation and Assessment Seminar.

Instructional Modes Unlike the traditional courseoriented program, in the Administration Program for Principals the modes of instruction consist primarily of supervised field experiences (required of all students), learning contracts, seminars and workshops, computerassisted instruction, independent study, learning activity packets, and case studies. Courses may also be prescribed.

Competencies and Credit Equivalents

The role of the principal is defined as including seven areas of learning, or Generic Competencies. Consequently, the graduate student in this program will demonstrate or acquire cognitive or affective competencies in the following areas:

As explained above, this Administration Program is competency-based, and consequently course credit is allocated through the seven categories listed above. Most of the background will be obtained through classes, special seminars, professional laboratory experiences, independent study projects, and field learning contracts; but some of the knowledge competencies may be fulfilled by enrollment in existing graduate courses, such as those in Psychology and Professional Education.

GENERIC COMPETENCY #1 Child Growth and Development (4 Credits)

Description: This competency requires an understanding of how to help the teacher satisfy the demands of various curricula including: subject, social and child centered.

GENERIC COMPETENCY #2 Curriculum/Cocurricular (4 Credits)

Description: This competency requires an understanding of the role of the principal in practical, theoretical and technical aspects of both curricular and cocurricular development, maintenance and revision.

GENERIC COMPETENCY #3 Law/Ethics (4 Credits)
Description: This competency requires the ability to
understand the relationship which exists between education and law and apply educational practices.

GENERIC COMPETENCY #4 Group Processes/School Community Interaction (7 Credits)

Description: This competency requires an understanding of group dynamics, such as cohesiveness, tensions, learning, problem-solving and leadership.

GENERIC COMPETENCY #5 Related Disciplines (4 Credits)

Description: This competency requires an understanding of the contributions of philosophy, economics, political science, sociology, humanities and the natural sciences to education.

GENERIC COMPETENCY #6 Administration (10 Credits)

Description: This competency requires an understanding that educational administration is concerned with accomplishing tasks through the exercise of the following functions by the school administrator: planning, organizing, staffing, budgeting, supervising, coordinating, evaluating and communicating.

GENERIC COMPETENCY #7 Research and Evaluation (6 Credits)

Description: This competency requires the ability to conduct, interpret and utilize research skills to affect the improvement of the educational program and to demonstrate the ability to articulate the processes of evaluation as they relate to students.

Orientation and Assessment Seminar

An orientation seminar is required of all students in the program. It lasts for one semester, beginning in September and in January. Students in the seminar receive two credits, which are applicable to the Generic Competency, Group Processes and School Community Relations. This seminar provides students with an opportunity to become familiar with the competencies and allows the student to document, according to their previous education or experience, their knowledge, skills and attitudes pertaining to each Generic Competency.

As a result of the documented evidence submitted in this seminar, credit value is determined. In cases where additional competency is deemed necessary, a prescription of learning activities is made for each individual. Total number of credits for the individual program of study will be determined by an assessment of the candidate's previous academic and experiential background.

Supervised Field Experience/Internship

The Supervised Field Experience is a collaborative endeavor with local school districts and is required of all students.

The experience may be performed during the school year or during the summer, and may be accomplished at one or more sites, but must be outside the student's school district of employment and/or area of residence. The graduate student is assigned to work with a principal practictioner. Each placement is made in cooperation with the faculty of this program, the participating school district, and the student.

Degree Completion Process

Following Admission to the Graduate School, students must be approved for degree candidacy, pass the comprehensive exam, complete a research project or thesis, and complete a minimum of 30 graduate credits at California University.

Curriculum

ADP 720-1	Elementary Curriculum and Instuction
ADP 721-1	Secondary and Middle School Curriculum
ADP 726-1	Instructional Strategies
ADP 731-1	Principles of School Law
ADP 741-1	School Community Seminar
ADP 746-1	Orientation and Assessment Seminar
ADP 746-2	
ADP 760	Elementary/Middle School Administration
ADP 761-1	Secondary/Middle School Administration
A DD 762	Supervision

READING SPECIALIST

Students wishing to enroll in any of these programs must have an undergraduate Q.P.A. of 3.0 or take the Miller Analogies Test and receive a score of 35 or better.

Applicants must meet all the requirements for admission to the School of Graduate Studies and Research and possess a valid teaching certificate. Candidates without a teaching certificate must obtain approval from the Dean to apply.

All studends who are accepted into Graduate School and indicate and interest in completing either the Masters in Reading or Reading Certification program will be assigned an advisor on the Reading Specialist faculty. This advisor is responsible for informing the student of program requirements, administeringing the comprehensive examination, checking graduation requirements, and endorsing certification.

After completing six (and no more than 12) credit hours, all students must apply for candidacy in the program of their choice. This application for candidacy is submitted to the student's advisor, and then submitted to the Graduate School for approval by the Graduate Dean.

Master of Education Degree in Reading

The candidate has the options listed below; namely, Option A, with at least 36 credits, including a Masters Thesis or Research Project, or, Option B, with at least 39 credits but not a Masters Thesis or Research Project.

Upon completion of the required credits, candidates must pass a comprehensive examination and present documentation of program standards endorsed by the International Reading Association and NCATE.

Curriculum

(*designates course with prerequisites.)

I. Reading and Language Arts:

Option A: 24 credits required Option B: 24 credits required

(The first four courses must be taken sequentially.)

RSP 700	Foundations of Literacy Theory and	
	Instruction	3
*RSP 702	Diagnosis and Treatment of Reading Problems	3
*RSP 703	Practicum: Diagnostic Case Studies	3
*RSP 704	Practicum: Remedial Case Studies	3
*RSP 705	Psychology of Reading	3
RSP 734	Content Are Reading in Middle and	
	Secondary Schools	3
50	California University of Pennsylvania	

*RSP 706	Adult Literacy	3
EDE 737	Literature and Literacy: K-12	3
II. Psycho	ology:	
	and B: 6 credits required	
-	Advanced Psychology of Learning	3
Electives:		
PSY 711	Advanced Educational Psychology	3
PSY 713	Psychology of Growth and Development	3
PSY 720	Neuropsychology of Learning Disorders	3
III. Educa	ational Research	
Option A:	6 credits required, as follows:	
RES 800	Methods of Research	2
Either		
RES 829	Research Project	2
Or		
RES 849	Masters Thesis	4
(The Resea	arch Project or Thesis Topic must be in Readin	19

Electives ((choose one only if completing a project):	
EDP 600	Statistical Methods	2
EDP 706	Evaluation and Measurements	2
EDP 656	Computer Oriented Research	2
Ontion B:	6 credits required, as follows:	
	* -	
RES 800	Methods of Research	2
Electives:		
	Charles and American	_
EDP 600	Statistical Methods	2
EDP 706	Evaluation and Measurements	2
EDP 656	Computer Oriented Research	

IV. Related Courses: Options A: 3 credits required

or Language Arts.)

EDE 701	Development and Organization of Curriculum	3	
Option B: 5 Credits required EDE 701 Development and Organization of Curriculum			
Electives:			
EDP 605	Philosophy of Education	2	
EDP 606	General History of Education	2	
EDE 700	Historical Background of the		
	Elementary School	2	
GEE 586	Study of Human Creativity	3	
EDP 624	Character Education	2	
EDP 610	Education Sociology	2	
EDP 611	History of American Education	2	

Certification as a Reading Specialist

This program is distinct from the two Master's degree programs listed immediately above. It is a certification only program in which no degree is received. In order to be admitted to this program, the applicant must meet all the requirements for admission to the School of Graduate Studies and Research and possess a valid teaching certificate. Students without a teaching certificate must obtain approval from the Graduate Dean for admission into the program. Students must also have an undergraduate Q.P.A. of 3.0 or a score of 35 or better on the Miller Analogies Test. Upon completion of the required credits, the candidate must pass a comprehensive examination and present documentation of program standards endorsed by the International Reading Association and NCATE.

Curriculum

32 Total Credits Required

Reading and Language Arts: 24 Credits required An asterisk designates a course with required prerequisites.

(The first four courses must be taken sequentially.)

RSP 700	Foundations of Literacy Theory and
	Instruction
*RSP 702	Diagnosis and Treatment of
	Reading Problems
*RSP 703	Practicum: Diagnostic Case Studies
*RSP 704	Practicum: Remedial Case Studies
*RSP 705	Psychology of Reading
RSP 734	Content Area Reading in Middle and
	Secondary Schools
*RSP 706	Adult Literacy
EDE 737	Literature and Literacy: K-12

II. Psychology: 3 credits required

PSY 712 Advanced Psychology of Learning

III. Educational Research: 2 credits requiredRES 800 Methods of Research

IV. Related Courses: 3 credits required

EDE 701 Development and Organization of Curriculum

Certification as a Reading Supervisor

For admission into the Reading Supervisor's Program, the applicant must hold a Pennsylvania permanent, or Level II, Instructional Certificate and have held certification as a Reading Specialist for five years. After the credentials have been received, the prospective student is referred to the Reading Coordinator for an interview before admission into the program.

The purpose of the Reading Supervisor's Program is to prepare the holder of a Level II Instructional Certification for a supervisory capacity in the specialized area of Reading.

The role of the Reading Supervisor in the public school is to design an evaluation program to assess the reading needs of a given school district (K-12), develop a program to improve instruction in reading that is consistent with the educational philosophy of that district, and propose and explore steps for implementation of the program and evaluate its progress.

The acquisition of the following objectives will enable the graduate student to fulfill this role:

- 3 The prospective Reading Supervisor will implement the
- 3 techniques, principles, and practices of supervision.
- 3 The prospective Reading Supervisor will be able to
- 3 develop and administer a total Reading program. The prospective Reading Supervisor will serve as a
- 3 consultant to the Reading Specialist, classroom teacher.
- 3 and other personnel who request help or information
- 3 concerning the teaching of reading.

The prospective Reading Supervisor will coordinate the efforts of various specialists in related fields.

The prospective Reading Supervisor will have knowledge concerning reading research, current literature, reading

programs, and appropriate texts and materials.

Curriculum

3

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14 Total Credits Required

RSU 680	Improvement of Instruction through	
	Supervision	2
ADP 743	Group Process	2
ADP 731	School Law	2
RSP 731	Supervision and Administration of a	
	Reading Program	2
RSP 732	Reading Curriculum and Instructional	
	Materials	2
RSP 733	Reading Internship	4

SCHOOL PSYCHOLOGY

Admission to the Degree Program

In addition to the requirements for admission to the School of Graduate Studies and Research, applicants for the Master of Science degree in the School Psychology Program must meet the following criteria:

- 1. Applicants must have an adequate background in undergraduate Psychology courses, with a minimum of 15 such credits required.
- Applicants must have at least a 3.0 quality point average in undergraduate work and at least a B average in Psychology courses to be considered for admission to the graduate program in School Psychology.
- Applicants who do not meet the quality point requirements are required to take the Miller Analogies Test or the Graduate Record Examination.
- 4. Applicants for admission to graduate study are interviewed by members of the Admission Committee. Admission to graduate study for the M.S. degree does not guarantee admission to the Certification Program.
- Applicants must present two letters of professional recommendation that attest to the ability of the student to do graduate work in Psychology.
- Applicants must submit an essay which focuses on the applicant's motivation to become a school psychologist.

Candidacy

To be considered for candidacy, the applicant must submit two letters of recommendation and be interviewed by the Candidacy Committee of the Graduate School Psychology Program. They must also submit an autobiography.

A minimum of thirty-four graduate credits is required for the Master of Science degree when electing Option A (thesis option).

A minimum of thirty-six graduate credits is required for the Master of Science Degree when electing Option B(non-thesis option).

Admission to the Certification Program

In addition to the requirements for admission to the School of Graduate Studies and Research, applicants for the Certification Program in School Psychology must meet the following criteria:

- Graduate students who have earned a Master's degree in School Psychology or a related area may apply for admission to the Certification phase of the School Psychology Program.
- Applicants must have an adequate background in undergraduate Psychology courses, with a minimum of 15 such credits.
- All credits earned following admission to the Certification Phase must be earned at California University of Pennsylvania.
- 4. Applicants for admission to Certification are interviewed by members of the Certification Committee.
- 5. Applicants must present two letters of professional recommendation that attest to the ability of the student to do graduate work in Psychology.

Candidacy

To be considered for candidacy, the applicant must submit two letters of recommendation and be interviewed by the Candidacy Committee of the Graduate School Psychology Program.

A minimum of thirty-four graduate credits is required for the Master of Science degree.

A minimum of sixty-four graduate credits is required for Certification as a School Psychologist.

The residency requirement of the School Psychology program must be met.

Curriculum

(A single asterisk signifies that the course is required for the Master's degree; a double asterisk, that the course is required for Certification as a School Psychologist.)

I. Psychology and Educational Foundations

For the M.S. Degree:

minimum of 12 credits required

A. Core Co	urses:		B: Electives	S:	
*PSY 702	Psychopathology of Childhood	3	PSY 796	Seminar in Analysis of Research in	
*PSY 712	Advanced Psychology of Learning	3		School Psychology	3
*PSY 713	Psychology of Growth and Development	3	GEE 537	Computer Science	2
*PSY 741	Theories of Counseling and Psychotherapy		022007	Company Solomor	
101 / 11	incomes of counseling and responding up	,	(R) Alternat	te Option (36-credit M.S. Degree)	
B. Electives					
		_		Degree: minimum of 76 credits required	
EDP 605	Philosophy of Education	2	For Certific	ation: minimum of 76 credits required	
EDP 606	General History of Education	2			
PSY 711	Advanced Educational Psychology	3	A. Core Co		
			PSY 767	Research Methods in Psychology	3
II. Psycholo	gical Methods and Techniques		PSY 766	Psychological Statistics	3
For the M.S.	3. Degree: minimum of nine credits required		*PSY 796	Seminar in Analysis of Research in	
	ation: minimum of 21 credits required			School Psychology	3
A. Core Co	urses:		B: Elective:		
*PSY 721	Advanced Tests and Measurements	2	GEE 537		_
		3	GEE 337	Computer Science	2
*PSY 722	Individual Psychological Evaluation I	3			
*PSY 723	Individual Psychological Evaluation II	3	Area V - Cli	inical Internship	
**PSY 724	, ,,	3		Minimum credits - Certification (15)	
**PSY 734	Assessment of Personality and Behavior I	3			
**PSY 742	Techniques of Counseling and		Core Course	es	
	Psychotherapy with Practicum	3	PSY 772	Internship in School Psychology	12
**PSY 756				n of 1200 clock hours in supervised experie	
101 700	Practicum Practicum	3	PSY 798	Internship Seminar	
	Tacticum	5	131 /30	Internship Seminar	3
D Elections					
B. Elective:	4	_			
**PSY 735	Assessment of Personality and Behavior II	3			
	Programs and Organization				
For the M.S	. Degree: minimum of three credits required				
For Certification	ation: minimum of six credits required				
A. Core Cou	irses:				
**PSY 746	Psychology of Learning Disabilities	3			
*PSY 752	Fundamentals of School Psychology	3			
101 102	i and in some in by ending	_			
B. Electives					
EDE 705					
EDE /UJ	Development and Organization of the	_			
	Curriculum for Elementary Schools	3			
PSY 795	Seminar in Behavior Modification				
	with Practicum	3			
RSP 701	Fundamentals of Reading Instruction	2			
RSP 702	Diagnosis and Treatment of Reading				
		3			
ESP 704	Diagnostic Testing and Prescriptive	_			
LSF 704		2			
CICID 702	Teaching	3			
CED 703	Consulting Theory	3			
IV. Research					
	Option (34-credit M.S. degree)				
For the M.S.	Degree: minimum of 10 credits required				
	ation: minimum of 10 credits required				
A: Core Cou	irses:				
PSY 767		3			
PSY 766					
	•	3			
PSY 849	Thesis	4	A	- dt- (7-t-1 1000 0000	

Graduate Catalog 1999-2000

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SOCIAL SCIENCES

Master of Arts in Social Science

The Master of Arts program in Social Science at California University is a flexible program designed to meet the demands of a high-technology culture. Instead of a highly structured program, the program includes a core of several courses that include the social, economic, political, and cultural aspects of American society.

The curriculum specializes through several branches or tracks. These tracks (which can be altered or modified in course structure without changing the core of the degree) have been created to serve the various needs and interests of graduate students who desire degrees in the social sciences. This system also allows the addition or deletion of tracks without jeopardizing the basic structure of the program.

Admission

Admission to the program requires an undergraduate grade point average of at least 3.0 on a 4-point scale or a minimum score of 35 on the Miller Analogies Test.

Candidacy

Following completion of at least six semester credit hours and before completion of 12 semester credit hours, a student must apply to the Graduate School for candidacy (complete form). The Graduate School will forward the information to the Coordinator of the M.A. in Social Science Program for review. If a student has a B average and no grade below B, candidacy will be granted. If a student has C, I or F grades, candidacy will be deferred until the student has completed 15 credit hours so that his/her academic performance can be carefully monitored. If, after completion of 15 credit hours, a student has no I grades or additional grades below B, candidacy will be granted.

Grades

All students must maintain a B grade point average. If a student drops below a B average at any time, he/she will be automatically placed on program probation. A student will have one semester to raise his/her grade point average to a "B". Failing to do so or at any time again dropping below a "B" average will result in termination from the program. Any student earning two or more "C" course grades or an "F" grade will be automatically placed on program probation for the remainder of his/her tenure in the program. If during the remainder of his/her program another "C" or "F" course grade is earned, a student will be automatically terminated from the M.A. in Social Science Program.

Comprehensive Examination

Following completion of a minimum of 24 course credits in the program, including all core courses, with no outstanding I grades, a student may apply to the Graduate School to take a required comprehensive examination. Once the M.A. in Social Science coordinator is notified of a student's intent to take the test, the coordinator will ask two or three social science and/or history department faculty members to each prepare a single examination question for the student. Questions will only be written by professors whom a student has had as an instructor in a graduate class.

Students will be notified by letter as to who will write their examination questions. They will also be encouraged to consult with those professors on how they should prepare for the specific test questions.

The examination questions will be graded on a pass/fail basis by the question author. A student must pass all questions to pass the examination. Failure of one question equates to failure of the examination. The Comprehensive examination may be taken a maximum of two times. Failure of the examination for a second time will result in a student's termination from the M.A. in Social Science Program. A student who fails the examination will be allowed to re-take the entire examination the next fall or spring term when it is offered by the Social Science Department (no special tests are given). Students will be notified by letter from the program coordinator as to whether they have passed or failed the examination.

Curriculum

Since the following core courses are scheduled only every other or every third semester or during the summer, every student needs to enroll in them the first time they are offered following their acceptance into the program. Students need to recognize that in order to complete their curriculum it may be necessary to take the following classes during the summer.

SOS 716	Social, Economic, and Political Order
SOS 717	Analysis of Power Structure
SOS 800	Social Science Research Techniques

The Master of Arts program in Social Science at California University is a flexible program designed to meet the demands of a high-technology culture. Instead of a highly structured program, the program includes a core of several courses that include the social, economic, political, and cultural aspects of American society.

The curriculum specializes through several branches or
tracks. These tracks (which can be altered or modified in
course structure without changing the core of the degree)
have been created to serve the various needs and interests
of graduate students who desire degrees in the social
sciences. This system also allows the addition or deletion
of tracks without jeopardizing the basic structure of the
program.

Currently there are six (6) tracks in the curriculum.

- (1) Cultural Resource Management- a program created to train graduate students to work in the rapidly growing field of cultural resource management and historic preservation.
- (2) Political Science a curriculum designed for students interested in a traditional political science program.
- (3) Secondary Education- essentially this curriculum is the same as the Master of Education in Social Science, which California University successfully offered for many
- (4) History- a streamlined and updated version of the university's previously offered Master of Arts in History.
- (5) General Social Science
- (6) Geography

Social Science Tracks

Six tracks exist within the social science program. The tracks are designed so that within the same program, flexibility can be maintained to provide all students seeking a Social Science Degree a program that best fits their career goals. The tracks are:

Track 1:	Cultural Resource Management
Track 2:	Political Science
Track 3:	Secondary Education
Track 4:	History
Track 5:	General Social Science

Geography

CORE COURSES: Thirteen (13) semester hours

**SOS 800	Social Science Research Techniques	3
*EDP 600	Statistical Methods	2
*GEE 537	Computer Science	2
or		
EDP 656	Computer Oriented Research	2
*SOS 716	Social, Economic, and Political Order	3
*SOS 717	Analysis of Power Structure	3
* Required		

Track 6:

** Required and must be taken first time offered after acceptance into the MA in Social Science program or before a student completes more than 12 credit hours.

Track 1:	Cultural Resource Management: 24 H	lours
*ANT 707	Cultural Resource Management:	
	Historic Preservation	3
*ANT 708	Historic Sites Archaeology	3

GEO 733	Land Use Analysis	3
GEO 768	Map and Aerial Photo Interpretation	3
HIS 727	Studies in the Social and Intellectual	
	History of the United States	3
MGT 712	Organizational Behavior	3
EAS 771	Field Mapping	3
GEO 520	Physiography of the United States	3
GEO 737	Geographic Information System	3
GEO 751	Geomorphology	3
HIS 736	Studies in Urban American History	3
MGT 742	Human Resource Management	3
MGT 731	Industrial Relations	3
*ANT 709	Practicum	4-6
*Required		

Track 2: **Political Science: 18-24 Hours**

Option A: Eighteen hours, including the Master's Thesis.

Option B: Eighteen hours, including the Research Project.

Option C: Twenty-four hours	
POS 700 Public Policy	3
POS 704 American Political Ideas	3
POS 705 History of Political Theory	3
POS 711 Politics of Latin America	3
POS 728 Politics of Underdeveloped Nations	3
POS 740 American Defense Policy	3
POS 745 The Legislative Process	3
POS 746 American Chief Executives	3
POS 747 Civil Liberties and Judicial Processes	3
POS 779 Independent Studies in Political Science 1-	-3
RES 829 Research Project	2
RES 849 Master's Thesis	4

Track 3: Secondary Education: 18-24 Hours

Option A: Eighteen hours, including the Master's Thesis.

Option B: Eighteen hours, including the Research Project.

Professional Education- 6 Credits

HUMANIS	ΓIC- 2 Credits (minimum)				
EDP 605	Philosophy of Education	2			
EDP 606	General History of Education	2			
BEHAVIOR	AL				
PSY 711	Advanced Educational Psychology	3			
PSY 713	Psychology of Growth and Development	3			
EDP 618	Social Psychology	2			
PSY 712	Advanced Psychology of Learning	3			
EDP 663	Computer Assisted Instruction	2			
II. Social S	Science- 11 Credits				
*RES 829	Research Project or	2			
*RES 849	Master's Thesis	4			
* Either required					
*RES 849	Master's Thesis	2 4			

ANTHRO	POLOGY		BEHAVIO	RAL	
ANT 701	Archaeology Field School	3	EDP 617	Psychology of Growth and Development	
ANT 707	Cultural Resource Management:	-2	EDP 618		
ANT 707	Historic Preservation	2		Social Psychology	2
4 NITT 700		3	EDP 636	Advanced Psychology of Learning	2
ANT 708	Historic Sites Archaeology	3	EDP 663	Computer Assisted Instruction	2
GEE 536	Archaeology Field School	VA			
				cience 17 credits	
GEOGRA			ANTHROP		
GEO 520	Physiography of the United States	3	ANT 701	Archaeology Field School	3
GEO 700	Philosophy of Geography	3	ANT 707	Cultural Resource Management:	
GEO 711	Demographic Analysis	3		Historic Preservation	3
GEO 714	Urban Environment	3	ANT 708	Historic Sites Archaeology	3
GEO 729	Regional Economic Geography	3	GEE 536	Archaeology Field School	VA
GEO 733	Land Use Analysis	3			
GEO 734	Site Selection	3	GEOGRAP	HY	
GEO 735	Marketing Geography	3	GEO 520	Physiography of the United States	3
GEO 737	Geographic Information System	3	GEO 700	Philosophy of Geography	3
GEO 751	Geomorphology	3	GEO 711	Demographic Analysis	3
GEO 752	Climatology	3	GEO 714	Urban Geography	3
GEO 754	Physical Environment	3	GEO 729	Regional Economic Geography	3
GEO 760	Regional Geography	3	GEO 733	Land Use Analysis	3
GEO 765	Field Methods		GEO 734	Site Selection	3
GEO 768	Map and Aerial Photo Interpretation	3	GEO 735	Marketing Geography	3
GEO 769	Computer Cartography	3	GEO 733	Geographic Information System	3
GEO 703	Computer Cartography	,	GEO 757	Climatology	
HISTORY			GEO 752 GEO 754		3
HIS 715	The Civil War and Reconstruction	2		Physical Environment	3
		3	GEO 760	Regional Geography	3
HIS 717	The 1930's and the United States	3	GEO 765	Field Methods	3
HIS 718	The United States Since World War II	3	GEO 768	Map and Aerial Photo Interpretation	3
HIS 725	Studies of the Afro-American in	_	GEO 769	Computer Cartography	3
	American History	3			
HIS 727	Studies in Social and Intellectual History		HISTORY		
	of the United States	3	HIS 715	The Civil War and Reconstruction	3
HIS 728	Studies in American Labor History	3	HIS 717	The 1930's and the United States	3
HIS 735	Studies in American Diplomatic History	3	HIS 718	The United States Since World War II	3
HIS 736	Studies in American Urban History	3	HIS 725	Studies of the Afro-American in	
HIS 737	Studies in Pennsylvania History	3		American History	3
HIS 784	Workshop in Local History	3	HIS 727	Studies in Social and Intellectual History	
				of the United States	3
POLITICA	L SCIENCE		HIS 728	Studies in American Labor History	3
POS 700	Public Policy	3	HIS 735	Studies in American Diplomatic History	3
POS 704	American Political Ideas	3	HIS 736	Studies in American Urban History	3
POS 705	History of Political Theory	3	HIS 737	Studies in Pennsylvania History	3
POS 711	Politics of Latin America	3	HIS 784	Workshop in Local History	3
POS 728	Politics of Underdeveloped Nations	3			
POS 740	American Defense Policy	3	POLITICAL	SCIENCE	
POS 745	The Legislative Process	3	POS 700	Public Policy	3
POS 746	American Chief Executives	3	POS 704	American Political Ideas	3
POS 747	Civil Liberties and Judicial Process	3	POS 705	History of Political Theory	3
POS 779	Independent Studies in Political Science	3	POS 711	Politics of Latin America	3
		_	POS 728	Politics of Underdeveloped Nations	3
OPTION C	: Twenty-four (24) semester hours		POS 740	American Defense Policy	3
	nal Education - 6 credits		POS 745	The Legislative Process	
	TIC- 2 Credits (minimum)		POS 746	American Chief Executives	3
EDP 606	General History of Education	2	POS 747	Civil Liberties and Judicial Process	
EDP 607	Advanced Educational Psychology		POS 747 POS 779		3
EDP 605	Philosophy of Education	2	100/17	Independent Studies in Political Science	3
נטט זקם	I intosophy of Education	2			
	CLUC LITT L CD 1				

	History - 18 To 24 Hours OPTION A: Eight	een	HISTORY		
(18) semester hours, including the Master's Thesis.		HIS 715	The Civil War and Reconstruction	3	
			HIS 717	The 1930's and the United States	3
OPTION B: Eighteen (18) semester hours, including the			HIS 718	The United States Since World War II	3
Research	Project		HIS 725	Studies of the Afro-American in	
				American History	3
OPTION	C: Twenty-four (24) Semester Hours		HIS 727	Studies in Social and Intellectual History	-
HIS 715	The Civil War and Reconstruction	3		of the United States	3
HIS 717	The 1930's and the United States	3	HIS 728	Studies in American Labor History	3
HIS 718	The United States Since World War II	3		Studies in American Diplomatic History	3
HIS 725	Studies of the Afro-American in	-27.	HIS 736	Studies in American Urban History	3
	American History	3	HIS 737	Studies in Pennsylvania History	3
HIS 727	Studies in Social and Intellectual History		HIS 784	Workshop in Local History	3
	of the United States	3	1110 701	Workshop in Local History	3
HIS 728	Studies in American Labor History	3	POLITICA	AL SCIENCE	
HIS 735	Studies in American Diplomatic History	3	POS 700	Public Policy	2
HIS 736	Studies in American Urban History	3	POS 704	American Political Ideas	3
HIS 737	Studies in Pennsylvania History	3	POS 705	History of Political Theory	3
HIS 784	Workshop in Local History	3	POS 711	Politics of Latin America	3
RES 829	Research Project	2	POS 728		3
RES 849	Master's Thesis	4	POS 740	Politics of Underdeveloped Nations	3
KLS 047	Widelici S Tilesis	4		American Defense Policy	3
Track 5: 0	General Social Science		POS 745	The Legislative Process	3
	A: Eighteen (18) semester hours, including the	_	POS 746	American Chief Executives	3
Master's T		3	POS 747	Civil Liberties and Judicial Process	3
Master 8 1	Hesis.		POS 779	Independent Studies in Political Science	3
OPTION D. Bi-14 (19)		RES 829	Research Projecct	2	
Research F	3: Eighteen (18) semester hours, including the Project	3	RES 849	Master's Thesis	
OPERON			Track 6: G		
OPTION	C: Twenty-four (24) Semester Hours		OPTION A	: Eighteen (18) semester hours, including the	е
COCIAL C	CHENICE		Master's Th	nesis.	
SOCIAL S	CIENCE		0.000000000		
ANTTIDO	OI OGV			: Eighteen (18) semester hours, including the	9
ANTHRO		_	Research Pr	roject	
ANT 701	Archaeology Field School	3			
ANT 707	Cultural Resource Management:		OPTION C	: Twenty-four (24) semester hours	
	Historic Preservation	3			
ANT 708	Historic Sites Archaeology	3	GEOGRAP	HY	
			GEO 520	Physiography of the United States	3
GEOGRAF			GEO 700	Philosophy of Geography	3
GEO 520	Physiography of the United States	3	GEO 711	Demographic Analysis	3
GEO 700	Philosophy of Geography	3	GEO 714	Urban Geography	3
GEO 711	Demographic Analysis	3	GEO 729	Regional Economic Geography	3
GEO 714	Urban Geography	3	GEO 733	Land Use Analysis	3
GEO 729	Regional Economic Geography	3	GEO 734	Site Selection	3
GEO 733	Land Use Analysis	3	GEO 735	Marketing Geography	3
GEO 734	Site Selection	3	GEO 737	Geographic Information System	3
GEO 735	Marketing Geography	3	GEO 751	Geomorphology	3
GEO 737	Geographic Information System	3	GEO 752	Climatology	3
GEO 751	Geomorphology	3	GEO 754	Physical Environment	3
GEO 752	Climatology	3	GEO 760	Regional Geography	3
GEO 754	Physical Environment	3	GEO 765	Field Methods	3
GEO 760	Regional Geography	3	GEO 769	Computer Cartography	3
GEO 765	Field Methods	3	GEO 778	Map and Aerial Photo Interpretation	3
GEO 768	Map and Aerial Photo Interpretation	3	RES 829	Research Project	3
GEO 769	Computer Cartography	3	RES 849	Master's Thesis	3
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SOCIAL WORK

Objective: The MSW Program is a response to the needs of the Southwestern Pennsylvania area. Its primary goal is to develop generalist MSW professionals for the area's agencies and other rural and small town environments. The program started Fall term 1998, and is thus not accredited. It has applied for candidacy and is seeking a site visit from the Commission on Accreditation for the Council on Social Work Education

Program Admission: Applicants must meet Graduate School requirements and:

- Complete an admission packet for the School of Graduate Studies and Research and the MSW Program.
- 2. Submit a non-refundable application fee of \$25.00.
- 3. Submit three letters of recommendation.
- 4. Submit personal portfolio materials following the guide.
- Have official transcripts sent to the MSW Program by all colleges attended, including California University.
- 6. Have results sent from general aptitude section of the Graduate Record Exam, showing verbal, quantitative and analytical scores.*
- 7. Have completed 30 credits of upper level courses in liberal arts, including human biology content.
- 8. Have a 3.0 average for the last two years of college work.

*There are two ways to take the GRE exam: the paper exam or the computer exam. The paper exam is offered a limited number of times each year. The computer exam can be taken within three days of your credit card registration by telephone.

The two part GRE code number:

California University of PA R2647 MSW Program 005001

The GRE registration number is 1-800-GRE-CALL.

Transfer Credit: 12 credits of accredited MSW work and three credits from related graduate study may be submitted for faculty review. Transfer credits must have been completed within six years of entrance into the program, must have a grade of B or better, and must be the equivalent of any course they replace courses they replace.

- 1. A social work degree earned within six years of entrance into the program.
- 2. An overall 3.0 GPA and a 3.25 GPA in the social work major.
- Completion of a 400 hour practicum under MSW supervision.

Program of Study: The 60 credit regular MSW Program begins in the Fall term. The full-time two year program requires five semesters (summer included). The part-time regular tract takes three years; students must register for at least six credits in the fall, spring and summers terms; are required to follow the plan for appropriate course sequencing; and must complete degree requirements within six years. The advanced standing tract has 42 credits, begins in the spring term and takes one and a half years of full-time study (Spring & Fall & Summer). Part-time advanced standing students follow requirements for part-time students and normally finish in seven terms.

Retention: Continuance in the MSW Program requires:

1. Maintaining a 3.0 GPA.

Curriculum

2. Earning no more than sex credits of C (a third C would require raising the grade and an additional C would require dismissal.)

Curriculum		
SWK 709	Social Welfare Policy & Services	3
SWK 713	Social Work Research Methodolgy	3
SWK 701	Generalist Practice I	3
SWK 707	Human Diversity	3
SWK 710	Policy Process & Program	3
SWK 714	Quantitative Research Methods	3
SWK 702	Generalist Practice II	3
SWK 730	First Year Practicum	4
SWK 705	HBSE	3
SWK 806	Rural Family & Communitry Policy	/3
SWK 801	Advanced Generalist Practice	3
	Advanced Practice Elective	3
SWK 829	Advanced Field Practicum I	5
SWK 803	Assessment of Differential	
	Client Functioning	3
	Advanced Practice Elective	3
SWK 808	Advanced Practice Research	3
SWK 830	Advanced Field Practicum II	5
SWK 832	Rual Advance Generalist Integrative	е
	Seminar	1
ELECTIVES (A	dvanced Practive *6-12 crs. & 3 crs. F	ree)
SWK 811	Practice with Aging	3
SWK 813	Practice in Health Care and	
	Health Planning	3
SWK 815	Juvenile & Adult Justice System	
	Practice	3
SWK 812	Practice in Supervision & Admin.	3
SWK 814	Practice in MH/MR	3
SWK 816	Practice with Children & Youth	3
SWK 821	Social Work with Substance Abuse/	,
	Addictions	3

SPECIAL EDUCATION

The master's degree in the area of Mentally/Physically Handicapped consists of three TRACKS.

TRACK A is a certification program for those who already hold an instructional/teaching certificate in any area but not certification in special education.

TRACK B is designed for those students who already hold certification in Mentally and/or Physically Handicapped or any single-category area of special education.

TRACK C is designed for students who have no teaching certificate but who are now working with, or have worked with handicapped children or adults in either a community or an institutional setting. Track C leads to both certification and a master's degree.

TRACK A:

For those without certification in Special Education

The graduate student in Track A has completed a B.S. degree in some area of education but wishes to become certified in Mentally and/or Physically Handicapped.

The student completing this program is licensed to teach all levels of the mentally retarded, learning disabled, behavior disordered, or physically handicapped in Pennsylvania. S/he may also teach gifted students in Pennsylvania.

The program consists of a minimum of 36 hours, including six credits of internship that may be satisfied at a number of practicum facilities.

Curriculum

(An asterisk designates a requirement.) A: Major Area: 33 credits Introduction to Exceptionality *ESP 501 *ESP 701 Introduction to Behavior Analysis 3 *ESP 739 Field Experience in Special Education 3 Education of the Severely/Profoundly *ESP 502 Handicapped 3 *ESP 503 Diagnostic Testing and Prescriptive Teaching 3 Methods and Curriculum I For Those *ESP 504 with Learning Problems 3 *ESP 505 Methods and Curriculum II For Those with Learning Problems 3 *ESP 506 **Habilitation Training-Transition** 3 *ESP 712 Seminar on Trends and Issues 3 or Approved Elective 3 *ESP 720 Internship 6

(May be taken as two three-credit sessions)

B: Research: 3 credits

*ESP 800 Seminar in Advanced Behavior Analysis and Research Design

TRACK B:

For those with certification in Special Education

3

Students who already hold certification in Mentally/
Physically Handicapped education should enroll in Track
B; no additional certification is awarded. The program
consists of a minimum of 36 hours, with six credits of
internship. Since students in this track have already had
student teaching experience, internships can be in a
number of different settings.

Curriculum

(An asterisk designates a requirement.)

A: Major A	rea: 24 credits	
*ESP 502	Education of the Severely/Profoundly	
	Handicapped	3
*ESP 503	Diagnostic Testing and Prescriptive	
	Teaching	3
*ESP 504	Methods and Curriculum I For Those	
	with Learning Problems	3
*ESP 505	Methods and Curriculum II For Those	
	with Learning Problems	3
*ESP 506	Habilitation Training-Transition	3
*ESP 720	Internship	6
(May b	e taken as two three-credit sessions)	

Nine credits from the following seminars: Seminar on Trends and Issues ESP 712 3 or Approved Elective 3 ESP 731 Seminar in Assessment and Prescription 3 ESP 732 Seminar in Special Education Administration and Supervision 3 ESP 734 Seminar in Counseling Parents of **Exceptional Children** 3 **ESP 735** Seminar in Education of the Gifted 3 **ESP 737** Seminar in Legislation and Litigation 3 ESP 738 Seminar on Teacher Behavior and Group Dynamics 3 ESP 739 Field Experience Seminar in Special Education 3 B: Research: 3 credits

3

TRACK C: For those with no Teacher certification but with Professional Experience in the Field

Track C is designed for students who are currently working with or who have worked with handicapped children or adults in either a community or an institutional setting, and want to obtain teacher certification in Special Education. Track C students do not already hold a teaching certificate.

Applicants must meet the requirements for admission to the Graduate School and must demonstrate proof of some successful professional job performance in a setting serving the handicapped.

Those who complete Track C and pass the National Teachers Examination receive a teaching certificate and the Master's Degree in Special Education.

Besides the 39 hours required in Track C, graduate students in this track must also complete a Professional Education block of at least ten hours unless some of these courses were part of their undergraduate programs. Track C students must complete one full semester of student teaching including professional practicum.

Curriculum

(An asterisk designates a requirement) A: Major Area: 36 credits Introduction to Exceptionality 3 *ESP 501 3 Introduction to Behavior Analysis *ESP 701 Field Experience in Special Education 3 *ESP 739 Education of the Severely/Profoundly *ESP 502 3 Handicapped *ESP 503 Diagnostic Testing and Prescriptive 3 Teaching *ESP 504 Methods and Curriculum I For Those with Learning Problems 3 Methods and Curriculum II For Those *ESP 505 3 with Learning Problems 3 **Habilitation Training-Transition** *ESP 506 3 *ESP 712 Seminar on Trends and Issues or Approved Elective 3 9 Internship/Student Teaching *ESP 720 B: Professional Education: 10 credits 2 Philosophy of Education EDP 605 2 Educational Sociology EDP 610 2 History of American Education EDP 611 Advanced Educational Psychology 3 PSY 711 PSY 713 Psychology of Growth and Development

PSY 712 EDP 663	Advanced Psychology of Learning Computer-Assisted Instruction	3
GMA 636	Computer Science for Teachers	2
C: Research: *ESP 800	3 credits Seminar in Advanced Behavior	
LSI 600	Analysis and Research Design	3

Note: Although not required, students in all tracks may complete a two credit research project or a four credit thesis.

SUPERINTENDENT LETTER OF ELIGIBILITY PROGRAM

The Superintendent Program

The program for the Superintendent Letter of Eligibility provides an opportunity for a graduate student to obtain certification as a superintendent of schools in the Commonwealth of Pennsylvania. This program combines a number of unique features not generally found in most superintendent certification programs. Modes of instruction utilized in the program include (1) core courses, (2) university seminars, and (3) business/industry/education partnerships. The Superintendents Letter of Eligibility Program is offered at three locations: Cal U Campus, Southpointe site and Dixon University Center, Harrisburg.

Admission to the Program

This program is open to students with a minimum of six years of professional certified service in the basic schools, three years of which shall have been in administration or supervision. The three years of administrative or supervision experience must be completed before certification endorsement will be granted. Applicants must possess a QPA of at least 3.0 in all graduate work taken prior to application to the program. Applicants must submit to the Graduate Office a letter of endorsement completed by the chief school administrator in the school district of current employment. Final recommendation for admission to the program will be determined by the Program Coordinator.

Curriculum

I. Core program (21 credits: 7 courses with a Field Experience Episode)

Portomoo Dhibi	, ac,
SLE 701	Administration Theory, Organization and Operation
SLE 702	Contract Law, School District Legal Issues
SLE 703	Finances
SLE 704	Technology and Facilities Development
SLE 705	Curriculum and Instruction, Leadership, Supervision
SLE 706	School/Community, Public Relations,
	Marketing
SLE 707	Strategic Planning, Policy Analysis,

Board Relations

All core courses will be taught by experienced superintendents, members of the program's Academy of Superintendents, appointed as adjunct faculty in the College of Education and Human Services.

II. University Seminars (seven credits)

This phase of the program is intended to provide the participant with a more comprehensive and analytical view of central office administration. Students will have an opportunity to become exposed to a variety of educational encounters by such experiences as tours of school districts, seminars on pertinent administrative topics, theories of administrative practices, synthesizing a code of ethics, and evaluation of self and goal attainment.

III. Business Management/Education Partnership (four credits, two seminars)

An important and unprecedented phase of the program is the involvement of business/industry leaders in the preparation of future school superintendents. Business/ industry leaders have knowledge concerning budgeting, personnel management, maintenance, planning, etc. that is valuable to potential chief school administrators.

Student Evaluation

Students will be required to complete a portfolio that can be used in measuring many of the outcomes deemed necessary to analyze desired performance levels. Course testing utilizing essay and objective information will be used in determining the knowledge and comprehension acquired by the student.

K-12 Administration Ed.D. Program

Through a Collaboration Agreement between California University of Pennsylvania and the University of Pittsburgh, students completing their studies for the Letter of Eligibility at Cal U and recommended by the Director of the SLE Program can transfer up to forty-five (45) graduate credits to the University of Pittsburgh, School of Education, Department of Administration and Policy Studies, K-12 Administration Program.

TECHNOLOGY EDUCATION

Master of Education Degree in Technology Education

This program provides an opportunity for those with qualifications to study for the Master of Education Degree and/or as a preparation for those pursuing advanced degrees; in addition, a supervisory certificate in technology education can be obtained. This degree is very beneficial to inservice teachers who are converting their programs from industrial arts to technology education. Additionally, teachers from other disciplines wishing to receive certification as technology education teachers may apply up to 21 graduate credits towards both their technology education certification and a Master of Education Degree in Technology Education.

The program has three tracks, or plans. Plan A (38 credits) leads both to the Master of Education degree and the Supervisory Certificate in Technology Education. Plan B (30 credits) is the general track with a thesis requirement and leads only to the Master of Education degree. Plan C (36 credits) is a general track program without a thesis requirement. In all three plans, completion of all course work and program requirements, as well as a satisfactory score on a comprehensive examination, is required.

Curriculum

Curriculum			
I. Human D	evelopment		
Plans A, B,	C: 5-7 credits		
PSY 711	Advanced Educational Psychology	3	
PSY 712	Advanced Psychology of Learning	3	
PSY 713	Psychology of Growth and Develpment	3	
*EDP 610	Educational Sociology	2	
ESP 501	Introduction to Exceptionality	3	
*GEE 586	A Study of Human Creativity	3	
II. Technolo	ogy Education - Professional		
Plans A, B, C: 6 credits			
*TED 700	Foundations of Technology Education	3	
*TED 710	Organization and Administration		
	of Technology Education	3	
III. Technology Education Laboratories			
Plans A, B:	9-12 credits		
Plan C:	15-21 credits		
TED 720	Implementing Technology Education	3	
*TED 730	Communication Systems	3	
*TED 740	Production Systems	3	

*TED 750	Transportation Systems	3
+TED 735	Advanced Studies in Communication	1-3
+TED 745	Advanced Studies in Production	1-3
+TED 755	Advanced Studies in Transportation	1-3
TED 760	Technology Education and Industrial	
	Practices Workshop	1-3
TED 765	Special Problems in Technology Education	1-3
TED 766	Special Problems in Technology Education	1-3
IV. Supervis	sion (three years of teaching experience re	_
quired)		
Plan A	8 credits	
Plan B	0 -4 credits	
Plan C	0 credits	
*TES 781	Improvement of Instruction Through	
	Technology Education Supervision	2
*EDP 685	Group Dynamics	2
*TES 791	Practicum I - Technology Education	
	Supervision	2
*TES 792	Practicum II - Technology Education	
	Supervision	2
V. Research	Атеа	
Plans A, B:	8 credits	
Plan C	4 credits	
*EDP 600	Statistical Methods	2
*RES 800	Methods of Research	2
RES 849	Master's Thesis	4
*Required C	Courses	
	e is required in Plan C.	
	dents in Plan A must have a minimum of the	hree
	thing experience prior to entering the prog	

MULTIMEDIA TECHNOLOGY GRADUATE CERTIFICATE PROGRAM

The Multimedia Technology (MMT) graduate certificate program is designed to educate students in integrating multimedia technology into their field of study. This program is appropriate for professionals who have backgrounds in education, business, communication, graphics, advertising, marketing, design, and computer science as well as others who wish to learn how to integrate multimedia into their area of expertise.

The university multimedia laboratory is a state-of-the-art facility equipped with Power Macintosh and Pentium PC computers, scanners, printers, CD mastering systems, and software for interactive and non-interactive presentations, animation, web page creation, image editing, multimedia authoring, and illustration. The computers are part of the university network allowing access to many resources located on file and web-based servers.

Curriculum

The program consists of five courses (15 credits) and represents a comprehensive and integrative approach. Courses are offered every semester including the summer so the certificate can be completed in one year. The multimedia courses are lecture and demonstration courses with assignments to be completed outside of class in the University Multimedia Laboratory or other suitably equipped facilities.

The program of study consists of the following five courses:

MMT 701	Multimedia Technology	3
MMT 702	Multimedia Systems	3
MMT 703	Digital Editing	3
MMT 704	Web Publishing	3
MMT 705	Interactive Design	3

NOTE: Upon successful completion of the program, a California University of PA certificate of completion will be presented. The multimedia courses can also be used as electives in other graduate programs.

Admission Requirements

To be admitted to the Multimedia Technology graduate certificate program, an applicant must:

- verify successful completion of a baccalaureate degree;
- verify an acceptable undergraduate quality point average;
- must have basic computer literacy as evidenced by:
 - appropriate undergraduate and/or graduate course(s)
 OR
 - demonstrated work experience or ad equate competency review.

Applications will be evaluated by the Multimedia Technology program committee from the Applied Engineering and Technology Department.

COURSE DESCRIPTIONS

ACCOUNTING - ACC

ACC 601. SURVEY IN ACCOUNTING. This course covers the following topics: accounting cycle, accounting for assets, liabilities and owner's equity, partnership accounting and corporate accounting. (3 crs.)

ACC 711. MANAGERIAL ACCOUNTING. The use of accounting data for corporate financial planning and control. Topics include organization for control, profit planning, budgeting, relevant costing, return on investment, and administration of controlership functions in business organizations. (3 crs.)

ACC 721. FINANCIAL ACCOUNTING. Introduction to financial accounting theory, the formulation of accounting principles, and the structure of generally accepted accounting principles. (3 crs.)

ACC 731. TAX PLANNING AND CONCEPTS. This course deals with the broad recognition of the tax effects of business decisions and a practical approach to tax planning for both individuals and corporations. (3 crs.)

ADMINISTRATION PROGRAM FOR PRINCIPALS - ADP ADP 711. CHILD GROWTH INTR (1 cr.)

ADP 712. CHILD GROWTH THEORY (1 cr.)

ADP 713. CHILD GROWTH DEV CHAR (1 cr.)

ADP 714. CHILD GROWTH LRN ENV (1 cr.)

ADP 720. ELEMENTARY CURRICULUM AND INSTRUCTION. This course is designed so that students will learn a variety of strategies a principal may use in his/her leadership role in curriculum and instruction in small and large school districts as he/she works with the board, staff, parents, students and other community members (2 crs.)

ADP 721. SECONDARY AND MIDDLE SCHOOL CURRICU-LUM. Among the many leadership roles and responsibilities for the PRINCIPALSHIP, none is more important than educational program development, administration and evaluation. An important characteristic of principals of successful schools is their greater understanding of the complexity of educational programs and their ability to reflect this complexity in the leadership they provide. A schoolís educational program is more than the formally stated curriculum and the content comprising this curriculum. In this course students will explore the spectrum of educational activities of the school that influence teaching and learning; curricular and cocurricular, formal and informal, intended and unintended, known and unknown. Primary attention will be given to the intended and unintended curriculum of the school. (2 crs.)

ADP 722, CURRICULUM ORGANIZATION (1 cr.)

ADP 723. CURRICULUM CHANGE (1 cr.)

ADP 724. CURRICULUM IMPLEMENTATION (1 cr.)

ADP 725. CURRICULUM EVALUATION (1 cr.)

ADP 726. INSTRUCTIONAL STRATEGIES. This course is intended to provide perspective principals with a practical and theoretical framework to aid them in directing teachers toward more effective instruction. Students are expected to analyze the elements of effective instruction including objective, methodology and evaluation. Students culminate these activities by designing and implementing models replicating effective instructional strategies. (2 crs.)

ADP 727. CURRICULUM GOALS. (1cr.)

ADP 728. CO-CURRICULAR GOALS (1 cr.)

ADP 729. CO-CURRICULAR ORGANIZATION (1 cr.)

ADP 731. PRINCIPLES OF SCHOOL LAW. The general purpose of the course is to assist the students to acquire a working and practical knowledge of school law. Every aspect of education, in one manner or another, is regulated by legislative statutes, department of education rules and regulations or state and federal court decisions. Hence, every person involved in the educational process should, in order to be fair, efficient, and effective, be aware of the law that governs his/her daily activities. (2 crs.)

ADP 732. LEGAL ISSUES. (1 cr.)

ADP 733. LEGAL MANDATES. (1 cr.)

ADP 734. PROFESSIONAL ETHICS. (1 cr.)

ADP 741. SCHOOL COMMUNITY SEMINAR. The purpose of this seminar is twofold: to help school administrators develop an understanding of the conditions and changes that affect school-community interaction and to help administration develop the performance competencies needed in order to anticipate and deal with ever-changing school/community relations issues and demands. (Variable crs.)

ADP 742. GP PROCESS CULTURE. (1 cr.)

ADP 743. GP PROCESS ROLE. (1 cr.)

ADP 744. SCH COMM RES. (1 cr.)

ADP 745, SCH COMM CONFLICT. (1 cr.)

ADP 746. ORIENTATION AND ASSESSMENT SEMINAR. The orientation seminar, required for all students in the program, provides an introduction to the theory and practice of educational administration. Included are such topics as ethics and moral leadership, problem analysis, judgment, stress management, time management, oral and written communications. (Variable crs.)

ADP 757. REL DISCP SPECIAL. (Variable crs.)

ADP 760. ELEMENTARY/MIDDLE SCHOOL ADMINISTRATION. This course provides pre-service administration theory and training for elementary/middle school principals. The course progresses from basic principles of leadership and leadership styles to a review of practical strategies to help make important decisions more effectively. Effective and innovative approaches to solving complex issues more efficiently and cooperatively will be examined and practiced. The course will provide a knowledge of practical methods for using available resources within the context of an ever changing, complex job. (Variable crs.)

ADP 761. SECONDARY/MIDDLE SCHOOL ADMINISTRA-TION. This course provides an introduction to the theory and practice of educational administration. The course progresses from an overview of leadership and leadership style to a review of the structures and management systems that can make good educational leadership possible and finally, focuses on leadership skills needed by administrators to be effective leaders in education today. Included are such topics as organizational culture, power in and around schools and the resolution of conflict, motivation and ethics and moral leadership. (Variable crs.)

ADP 762. SUPERVISION. The course is intended to acquaint the perspective supervisor with some of the principles, procedures and techniques which have been found to be most useful and effective in improving instruction in our schools today. The instruction will focus not only on the theoretical basis of supervision, but will have practical application and relevance to teaching. A clinical supervisory approach with heavy attention to the due process rights that should be embedded in the process is the basis of the course. Experience will include a self assessment of participantís leadership styles, analysis of teaching, practicing supervisorís perceptions of the supervising function, supervisory models, taxonomy of instruction and mutual goal-setting process. (2 crs.)

ADP 763. ADMIN STRATEGIES. (1 cr.)

ADP 764. ADMIN LEADERSHIP. (1 cr.)

ADP 765. ADMIN MANAGEMENT. (1 cr.)

ADP 767. ELEM FIELD EXP. (Variable crs.)

ADP 768. SEC FIELD EXP. (Variable crs.)

ADP 769. INTERNSHIP. (Variable crs.)

ADP 772. RESEARCH PROJECT. (Variable crs.)

ADP 773. RES EVAL SP PROJ. (1cr.)

ANTHROPOLOGY - ANT

ANT 701 ARCHAEOLOGY FIELD SCHOOL. Acquaints graduate students with basic prehistoric and historical archaeological field and laboratory techniques. (Variable crs.)

ANT 707. CULTURAL RESOURCES MANAGEMENT: HISTORIC PRESERVATION. The need for preservation of cultural resources, the state and federal legislation supporting such work, the various facets of cultural resources work, and a practical scheme for cultural resources preservation. Part of the course involves doing preservation work. (3 crs.)

ANT 708. HISTORIC SITES ARCHAEOLOGY. The techniques, philosophy, work and aims of that branch of history that studies the American historic past from a cultural-archaeological perspective, with study of military, domestic, commercial, and industrial sites and the people who lived or worked at them. Insight into the means by which debris from the past occupation of an area may be made to tell the story of who lived there, why they chose to settle in certain areas, what the settlers subsisted on, what daily activities they performed, and the relationships of these elements to one another. (3 crs.)

ANT 709. ANTHROPOLOGY PRACTICUM. (Variable crs.)

ATHLETIC TRAINING - ATE

ATE 500. PHARMACOLOGY FOR ALLIED HEALTH SCI-ENCES. An overview of drugs commonly used to treat patients seen by persons working in the allied health professions. Medical reasons for drug treatment, specific actions of therapeutic agents, and adverse effects are presented. (2 crs.)

ATE 700. GROSS ANATOMY OF THE EXTREMITIES. The study of anatomical structures in the extremities of the human body, coupled with laboratory dissection of human cadavers. (4 crs.)

ATE 710. ADVANCED ATHLETIC TRAINING. The study of the cognitive, effective and psychomotor behavioral objectives necessary to properly assess and manage athletic injuries. The course identifies injury and illness factors associated with participation in athletics. Thorough clinical evaluation of injuries and illnesses commonly incurred by athletes makes up a significant amount of the coursework. (3 crs.)

ATE 715. SPORTS LAW. General legal principles and case law. Specific attention is placed upon the impact of law and case law on sport and sports medicine practitioners. (3 crs.)

ATE 720. SPORTS THERAPY. Lecture and laboratory exercises that explain the theoretical and practical implementations of physical therapy modalities in the care of athletic injuries. The use of therapeutic exercise and testing in the rehabilitation of sports injuries comprises an equal portion of this course. (4 crs.)

ATE 730. INTERNSHIP IN SPORTS MEDICINE I. The graduate student intern practices and enhances clinical skills in athletic training. The student will be assigned to off-campus clinical settings for this experience. (3 crs.)

ATE 735. INTERNSHIP IN SPORTS MEDICINE II. The graduate student intern continues to practice and enhance clinical skills in athletic training. The student will be assigned to off-campus clinical settings for this experience. (3 crs.)

ATE 740. SEMINAR IN ATHLETIC TRAINING. (3 crs.)

ATE 745. CONTEMPORARY ISSUES IN ATHLETIC TRAIN-ING. Administrative functions, professional relationships, facility design, professional conduct, management probelems, record keeping, medical policies and procedures, physical examinations, budgetary considerations, certification and licensing. This course will discuss current trends within the profession of athletic training. In addition, the student will be involved in research in academic

areas, concepts and practical ideas in the area of athletic training and sports medicine. (4 crs.)

ATE 800. RESEARCH METHODS FOR ALLIED HEALTH SCIENCES. The course studies the basic tenets of scientific research as they apply to the allied health fields. Topical discussions include development and limitation of a research problem, research methodology, basic principles of tests and measurements, the review of literature and library utilization, and writing the research document. (3 crs.)

ATE 810. THESIS SEMINAR. This course is designed to assist graduate level students in development of the first three chapters of their theises. Students will defend their proposals in a mock prospectus meeting. (3 crs.)

BIOLOGY - BIO

BIO 520. NEUROBIOLOGY. An examination of the structure and function of nervous systems. The course is designed to develop a detailed understanding of nervous system structure and function from the molecular level to the level of complex circuits such as learning and memory. A central theme is the comparison of the neurological circuits across phyla to identify basic organizational principles. Prerequisites: BIO 115, BIO 120, BIO 306, BIO 328, or permission of the instructor. 3 hours of lecture weekly. (3 crs.)

BIO 575. WATER POLLUTION BIOLOGY. A survey of the impacts of various types of environmental pollutants on aquatic biological communities. Community responses are analyzed in a lecture/laboratory format with emphasis on collection in the field. Three lecture hours and three laboratory hours weekly. Prerequisites: BIO 115, BIO 120, BIO 125, CHE 101 & CHE 103. (4 crs.)

BIO 700. CELLULAR ULTRASTRUCTURE. The fine structures of cellular organelles as revealed by the electron microscope are discussed in relation to organelle and cell function. Ultrafine structure of the cell membrane, cell wall, nucleus, mitochondria, Golgi apparatus, locomotor organelles, etc. are included. This course does not include instruction in the techniques of electron microscopy. (3 crs.)

BIO 706. BACTERIOLOGY. The physiology of the cell with emphasis on the relationship of cell structure and function. Includes physical and chemical aspects of cells, the relations of cells to their environment, energy conversion in cells, membrane permeability, photosynthesis, and enzyme action. Prerequisite: CHE 331. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 708. MICROBIAL ECOLOGY AND PHYSIOLOGY. Detailed analyses of the anabolic and catabolic activities of bacteria, fungi, and algae are studied. The microbiological processes of nitrification, dentrification, chemosynthesis, bacterial and algal photosynthesis, fermentation, and antibiosis are examined, with reference to ecological interactions with man and other organisms. Prerequisites: Microbiology and Organic Chemistry. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 710. IMMUNOLOGY. A detailed study of the immune system of animals covering nonspecific and specific host responses to foreign materials, the interaction between cells of the specific immune response, the nature and diversity of the immune response, the practical applications of the immune response, and disorders associated with the immune response. Prerequisites: BIO 115, BIO 120 and BIO 318 or BIO 326. Three lecture hours weekly. (3 crs.)

BIO 720. HUMAN GENETICS. A study of various genetic and chromosomal abnormalities found in humans. Some topics are: sex-linked inheritance, karyotype analysis, the genetic code, inherited metabolic disorders, genetics of immune system, blood group genetics, new genetic technologies, population genetics, mutations, and genetic counseling. (3 crs.)

BIO 721. BIOCHEMISTRY I. A comprehensive study of the characteristics of proteins, lipids, carbohydrates, and nucleic acids, with special emphasis on enzymes. Other topics include the major metabolic pathways found in organisms and the regulation of these organisms. Prerequisite: Organic Chemistry and/or permission of the instructor. (3 crs.)

BIO 723. ANIMAL HISTOLOGY. The study of cellular differentiations in tissue, tissue identification, and special functions, especially in mammals. Prerequisites: BIO 115 and 120. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 724. EMBRYOLOGY. A study of oogenesis and spermatogenesis and resultant developments following fertilization; factors involved in morphogenetic determination; organology; sequences of changes in development. Special emphasis on the chick and comparative examples of development in other animals. Prerequisites: BIO 115 and 120. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 725. MOLECULAR BIOLOGY. A comprehensive course in macromolecular structure and function in organisms, with emphasis on proteins and nucleic acids. Topics include bioenergetics, the genetic code, and protein synthesis, recombinant DNA technology, and methods of analysis of proteins and nucleic acids. Prerequisite: Organic Chemistry or permission of the instructor. (3 crs.)

BIO 726. HUMAN GENETICS. Chromosomal abnormalities, Mendel's Laws, and the effect of change of gene action on Mendelian ratios. Other topics include; sex-related inheritance, random mating, consanguinity, allelism, mutations, and maintenance of polymorphism. Prerequisites: BIO 115, BIO 120, BIO 125, & BIO 318. Three lecture hours weekly. (3 crs.)

BIO 727. ICHTHYOLOGY. An introduction to the morphology, taxonomy, ecology, and distribution of the major groups of freshwater fishes, with emphasis on the fauna of the Northern United States; field experiences in fishery survey techniques are provided. Prerequisites: BIO 115 & BIO 120. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 735. COMPARATIVE VERTEBRATE ANATOMY. A comparative study of the vertebrate organs and organ systems of animals in the phylum chordata, with emphasis on evolutionary changes. Prerequisites: BIO 115 & 120. Three lecture hours and three laboratory hours weekly. (4 crs.)

BIO 738. HERPETOLOGY. A study of the anatomy, physiology, ecology, and taxonomy of the major groups of amphibians and reptiles. Prerequisite: BIO 120. (3 crs.)

BIO 740. ORNITHOLOGY. The study of birds, with major emphasis on field observations and identification of resident and migratory species. Numerous field trips in western Pennsylvania areas also illustrate ecological, behavioral, and habitat relations and the impact of human beings on bird life. Lectures and some

laboratories cover anatomic and physiologic adaptations of the vertebrate structure to the stringent problems of flight and climate. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 741. ADVANCED RESEARCH STUDIES. An original research investigation with a qualified research professor in the graduate student's area of biological research interest. (1-4 crs.)

BIO 742. SCIENTIFIC PHOTOGRAPHY. A basic course in life and environmental sciences which stresses the myriad ways in which photography can be applied to enhance the effectiveness of the teaching and research endeavors of biologists and environmentalists. Special attention is given to photomicroscopy, macrophotography, and field photography. Various other illustrative materials are also prepared, using selected photographic equipment and/or procedures. (2-4 crs.)

BIO 744. ETHOLOGY. Four principal approaches to ethology: ecology, physiology, genetics, and development are interpreted within the framework of evolutionary biology with emphasis on the patterns of behavioral similarities and differences among different kinds of animals. Prerequisites: BIO 115, BIO 120, BIO 308, BIO 316 or ENS 300. Need permission of the instructor. Three lecture hours and three laboratory hours weekly. (4 crs.)

BIO 745. ENTOMOLOGY. Theoretical and field study of the local classes of insects and related species: taxonomy, collecting and mounting, general and specific morphology, metamorphosis and life cycles, economic importance and control measures. Not open to those who have already taken Biology 362. (4 crs., 2 hr. lab/3 hr. lecture)

BIO 746. PARASITOLOGY. A study of symbiotic relationships in the animal kingdom, with emphasis on invertebrate endoparasites of man, his domestic animals, and common wildlife of the area. Morphology, life cycles, host-parasite relationship, etiology, epidemiology, and treatment and diagnosis are stressed. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 752. ECONOMIC BOTANY. Human beings' relationships to and economic interests in plants from the products from plant walls, exudates and extractions to those primarily used as food. (4 crs., 2 hr. lab/3 hr. lecture)

BIO 758. PLANT ANATOMY AND MORPHOGENESIS. A study of plant growth and descriptive experimental studies on cells and meristems. How plant correlation, polarity, symmetry, differentiation, regeneration, tissue mixtures and abnormal growth are involved in the distinctive phenomena of morphogenesis. Laboratory work consists largely of the growth of representative plants from the seeds in the laboratory. Experiments show the effects of light, temperature, water and various other physical factors together with chemical substances and the various genetic factors. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 765. DESIGN AND ANALYSIS. The theoretical and applied basis of experimental design, sampling theory and sampling designs, data input and output, statistical analysis and interpretation for studies involving ecological research, environmental pollution monitoring, and environmental impact assessment. The emphasis will be on experimental design, sampling procedures and the application of computer methods for data base, spreadsheet, word processing, and statistical packages. (3 crs.)

BIO 766 BIOMETRY. A study of statistical techniques applied to experimental design and analysis of biological problems in the field and laboratory, with emphasis on multivariant situations and on insuring validity of results. Prerequisite: College Algebra or Statistics. (3 crs.)

BIO 768. TECHNIQUES IN ELECTRON MICROSCOPY. Detailed training in the operation and care of the electron microscope; techniques of specimen preparation for electron microscope visualization, including fixation, embedding, and ultrathin sectioning and special techniques such as replication and shadow casting. Prerequisite: BIO 762 and permission of the instructor. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 772. MAMMALOGY. Classification, distribution, and natural history of mammals, with emphasis on Eastern North American species. Field studies and preparation of study specimens. Prerequisites: General Zoology, Biotic Communities, or Ecosystems Ecology. (4 crs., 3 hr. lab/3 hr. lecture)

BIO 773. PRINCIPLES OF WILDLIFE MANAGEMENT. This course is designed to provide students with an understanding of the philosophies and concepts of scientific wildlife management. Major emphasis will be placed on wildlife management in North America, but differing perspectives from other regions of the world will be incorporated into the course. Topics to be covered will include monitoring habitats and habitat management, population exploitation and administration, economics, and socio-political topics as they relate to wildlife management. Three lecture hours and three laboratory hours weekly. Prerequisites: BIO 115 & BIO 120. (4 crs.)

BIO 778. ORGANIC EVOLUTION. An intensive study of the impact of evolutionary thought on the various disciplines of biology. Emphasis is on the evolution of life from non-life, organic materials and the genetic basis of life; also on the elemental forces of evolution, the sources of variation, the role of natural selection and genetic drift, and the result of evolution through adaptation. Evolutionary divergence is studied through an understanding of races and species, isolating mechanisms, the origin if species, and evolution above the species level. (3 crs.)

BIO 788. CELL BIOLOGY. The biology of the cell with emphasis on the relationship of structure and function within the cell. It is a study of cell organelles, growth, division, macromolecules, membranes, synthesis, and regulation. Prerequisites: BIO 115, BIO 120, BIO 125, & CHE 331. Three lecture hours and three laboratory hours weekly. (4 crs.)

BIO 789. SPECIAL PROBLEMS. (Variable crs.)

BIO 790. WILDLIFE MANAGEMENT TECHNIQUES. This course will cover techniques commonly used by wildlife biologists with emphasis on those applicable to birds and mammals. Important techniques covered in the course include aging and sexing of important game species, habitat measurement and evaluation, population analysis, and analysis of food habits. The lecture portion of the course provides an introduction to common techniques and the lab emphasizes practical use and application of those techniques. Three lecture hours and three laboratory hours weekly. Prerequisites: BIO 115, BIO 120 & BIO 125. (4 crs.)

BIO 795. SEMINAR IN BIOLOGY. Library research, class discussion, and reports by the participants on topics of special interest. Members of the biology staff are also invited to lead some discussions in their major fields of interest. (2 crs.)

BIO 800. METHODS OF RESEARCH IN SCIENCE. Consideration of the fundamentals of research in the natural sciences, with emphasis on the scientific method, technical library use, collection and interpretation of data, and the format of scientific writing for the thesis and for publication. The AIBS Style Manual for publishing in primary scientific journals will be used. (2 crs.)

BUSINESS - BUS

BUS 741. BUSINESS LAW. The legal aspects of contracts and the results of contractual obligations, negotiable instruments, agency, partnerships, corporations, real and personal property and sales. (3 crs.)

BUS 743. BUSINESS, SOCIETY, AND GOVERNMENT. A survey of social control of industry and business; the course covers government regulation, consumerism, and the role of technological change in society. (3 crs.)

BUS 771. QUANTITATIVE METHODS. Introduces mathematical and statistical techniques that have applications in management. (3 crs.)

BUS 795. SEMINAR. Seminar in selected theoretical and empirical literature in a functional area (to be designated) of business. (3 crs.)

BUS 799. STRATEGIC MANAGEMENT. An integrated course dealing with corporate-level strategic planning and policy from the point of view of chief administrative officers and boards of directors. The case study approach is used. (3 crs.)

COUNSELOR EDUCATION - CED

CED 701. ORGANIZATION AND DEVELOPMENT OF COUN-SELING SERVICES. This course is the initial and fundamental one in the programs for school and agency counselors. It examines the rationale, development, scope and nature of American counseling services in these aspects: history and current stage of development; systems of organization and administration; implementation of services; professional qualification and preparation; legal and ethical responsibilities; non-standardized assessment; records maintenance; public relations; and future trends. (3 crs.)

CED 702. COUNSELING THEORY. This course deals with theories, objectives, principles, and practices of counseling individuals, including children and the family. These theories are applicable in schools and other human-service institutions. (3 crs.)

CED 703. CONSULTING THEORY. This course is an advanced level course and has theoretical and practical components. In the theoretical component process consultation is highlighted as an applied behavioral science. Emphasis is placed on the levels of environmental quality within an organization. Specific human processes of inclusion, membership, leadership, control, communication and problem-solving are stressed. The practical component deals with initial contact, organizational diagnosis, process intervention, evaluating progress and closure. Prerequisites: CED 701, 702, 710, 714. (3 crs.)

CED 705. DEVELOPMENTAL GROUP COUNSELING. This course includes the meaning, function, types, and principles of the group approach to counseling; the dynamics of group interaction; leadership; role playing; personal development in groups; and the influence of the group processes on individual development. Prerequisite: CED 702 or permission of instructor. (3 crs.)

CED 708. SUBSTANCE ABUSE AND ADDICTION. For graduate students interested in alcohol and other drug rehabilitation and prevention. Since substance abuse and addiction are present in all sectors of society, it is important for human service professionals to understand the process of addiction and the special problems experienced by the affected individuals and their significant others. (3 crs.)

CED 709. INDEPENDENT STUDY. The graduate student will have an opportunity to do independent study or research in counseling. The graduate student is guided by a member of the faculty in Counselor Education. Prerequisite: Permission of the adviser. (Variable crs.)

CED 710. COUNSELING SKILLS AND TECHNIQUES. Graduate students develop counseling skills by learning and practicing therapeutic techniques that facilitate the learning process. In a laboratory setting, the students experience personally the elements that constitute effective counseling. They learn the importance of non-verbal behavior in a counseling setting and the skills of attending, active listening, and action planning. Likewise, they are required to explore the uses of audio and video equipment in counseling situations and to integrate these tools with currently employed behavioral interventions such as role playing, social atoms, structured exercises, and simulations. Prerequisites: CED 701,702, 714. (3 crs.)

CED 711. PRACTICUM I. In this course the student develops effective helping skills and techniques using one or more recognized counseling theories. To achieve this goal, the graduate student spends two full days per week in the field under the supervision of an experienced counselor and also attends regularly scheduled classes. A list of counseling competencies to be developed may be obtained from the Counselor Education Department. Prerequisites: CED 701, 702, 714, 710, candidacy. (3 crs.)

CED 712. PRACTICUM II. A continuation of Practicum I (CED 711), with emphasis on group counseling. Graduate students in this course are required to spend two full days per week under supervision and to attend regularly scheduled classes. Prerequisites: all core courses or departmental approval. (3 crs.)

CED 713. PRACTICUM III. A continuation of CED 712, this course serves as a culmination of practicum experiences. The course is flexible, so that it may meet individual needs of counselor trainees with varying degrees of skills while ensuring the maximum standards of competence in counseling. Prerequisite: CED 712. (3 crs.)

CED 715. ADVANCED COUNSELING THEORY. The initial phase of this course reviews the theories and the role they play in the counseling process. The second phase deals with building around the various theoretical approaches to counseling. Counseling approaches that are considered include: (1) rationale, (2) learning theory, (3) analytic, (4) phenomenological, and (5) existential. The final aspect of the course involves graduate students attempting to

incorporate a counseling approach into their own personality and making an attempt to use this approach through role playing. Prerequisite: instructor approval. (3 crs.)

CED 716. ADVANCED CONSULTING THEORY. A continuation of CED 703, in which students function as process consultants in a consulting project. Students draw up a consulting contact with an actual client or client system, collect and analyze data using contemporary consulting techniques, perform an agreed-upon intervention in the client system, and make a final evaluation of the project. Prerequisite: instructor approval. (3 crs.)

CED 717. DIAGNOSIS AND TREATMENT IN MENTAL HEALTH. The use and understanding of treatment terminology and concepts as used by mental health treatment centers and clinicians. Use of the Diagnostic and Statistical Manual-III and American Psychological Association codes are emphasized. (3 crs.)

CED 720. CROSS-CULTURAL COUNSELING. Students will explore the cognitive, affective, and behavioral considerations of culturally diverse client groups. Accordingly, counseling theories and programmatic approaches relevant to the mental health needs and concerns of these groups will be introduced. This will include an examination of how cultural attributes, strategies, and coping skills can be effectively synthesized into the counseling process. (3 crs.)

CED 724. EXPERIENTIAL GROUP PROCESSES. This course provides a setting for graduate students to grow in self-awareness and to explore their interpersonal and intrapersonal concerns. Emphasis is placed on personal and social growth, improving human relationships, diminishing human distress, improving communications, problem-solving, and group membership interaction. The students are given the opportunity to view and assess their behavior by use of audio and/or video tapes of group process. (3 crs.)

CED 785. RESEARCH SEMINAR IN COUNSELOR EDUCA-TION. The purpose of this course is to give the graduate student a comprehensive review of the research and current literature in counselor education Critical study and evaluation of research findings are emphasized. (3 crs.)

CED 786. SEMINAR IN CAREER INFORMATION. This course provides knowledge and process about career information and counseling in school and agency settings. It may also benefit other professionals such as teachers, administrators, the clergy, etc. The course emphases include sources of career information; appraisal, classification, and filing of career information; theories, values and methods of individual career development; career resources centers; career and vocational education; systems of career guidance; survey of contemporary and projected world of work; assessment; and personal or problem-oriented implications of career development. (3 crs.)

CED 787. INTEGRATED SEMINAR. Intended for students who have completed all course requirements in the counseling curriculum, providing the opportunity to synthesize the graduate student's work and experience in counseling. Prerequisite: instructor permission. (3 crs.)

COMMUNICATION DISORDERS - CMD

CMD 600. RESEARCH AND PROFESSIONAL PRACTICE IN SPEECH/LANGUAGE PATHOLOGY. This course is designed to give the graduate student an opportunity to examine the total field of Speech Pathology and Audiology and its relationship with allied professions. Special attention is focused on research in the profession and on the ethical, clinical, and legal aspects of membership in the American Speech, Language and Hearing Association. (3 crs.)

CMD 701. LANGUAGE DISORDERS IN ADULTS. The purpose of this course is to prepare the student to provide assessment techniques and therapy to manage the language and speech problems of individuals who have suffered stroke or head-trauma injuries. Special emphasis is placed on apraxia. (3 crs.)

CMD 702. LANGUAGE DISORDERS IN CHILDREN. The study of language disorders in children from a language content, language form, and language use orientation. Students learn to obtain and analyze a language sample and to plan for remediation of language disorders in children. (3 crs.)

CMD 703. FLUENCY DISORDERS. A comprehensive analysis of the several theoretical approaches to the causes and treatment of stuttering. Emphasis is placed on current literature in the application of several techniques to the modification of disfluent speech. (3 crs.)

CMD 704. ARTICULATION DISORDERS. This course will provide the graduate student with traditional views toward articulation and phonology disorders and their assessment and treatment. Current management and assessment procedures will be presented. (3 crs.)

CMD 705. VOICE DISORDERS. The purpose of this course is to provide comprehensive academic and clinical training in the etiological factors, description, and management of organic voice disorders. The teaching of esophageal speech, the use of the artificial larynx, and the study of tracheo-esophageal practice are covered in detail. (3 crs.)

CMD 708. NEUROLOGY. The graduate student becomes familiar with those structures and functions of the central and peripheral nervous systems which appear relevant to the comprehension and production of speech and language. Brain asymmetry in normal and brain-damaged persons, left- and right-hemisphere language abilities in split-brain patients, handedness as it relates to speech and language functioning, brain asymmetry due to gender differences, disruption of language functions after brain injury, the effects of aging and stress, and neurologic endowment are all discussed. The central theme of this course is brain "governance" over all other body systems. (3 crs.)

CMD 710. ADVANCED CLINICAL METHODS. Clinical practicum is provided for graduate students in the campus Speech Clinic as well as in cooperating outside agencies such as a hospital, nursing home, health center, etc. Graduate students gain experience with children and adults with many kinds of speech, language, and auditory problems. (1-12 crs.)

CMD 718. ADVANCED AUDIOLOGY. This course will provide the student with an understanding of behavioral and electrophysiologic special audiologic tests for the determination of the location of pathology within the auditory system. The student will be introduced to concepts concerning specification, selection, fitting, care, and use of amplification systems. (3 crs.)

CMD 725. AURAL REHABILITATION. The purpose of this course is to identify the problems of the aurally handicapped in society and methods of alleviation and compensation for the hearing loss. (3 crs.)

CMD 749. INDEPENDENT STUDY. This course allows students to investigate an area of speech pathology or audiology of interest to them by reviewing the pertinent literature and research reports or by conducting research. (3 crs.)

CMD 762. NONVOCAL COMMUNICATION. The various modes of nonvocal communication are presented. Information specific to selection of the most advantageous method (or combination of methods) for implementation with clients is considered. (3 crs.)

CMD 763. COMMUNICATION PROBLEMS OF SPECIAL GROUPS. This course will focus on the difference in speech/ language of non-native and non-standard users of English, with attention given to assessing when and what types of intervention are ethically and professionally appropriate. The changes in structure and function which accompany aging and their effects upon speech and language functions of the elderly are examined. Verbal and nonverbal congruency (or lack thereof) is addressed in depth. (3 crs.)

CMD 764. INSTRUMENTATION IN SPEECH/LANGUAGE PATHOLOGY. This course is designed to provide the graduate student with a background in the clinical use of instrumentation. Students will learn how instrumentation has been and can be used to measure various parameters of the speech signal and how these measurements can be employed in the assessment and management of individuals with Speech-Language Disorders. Emphasis is on PC-based instrumentation. (3 crs.)

CMD 765. DYSPHAGIA. This course addresses the evaluation and management of children and adults with disordered swallowing secondary to neurologic and structural abnormalities. The relationship of dysphagia to speech disorders is discussed. (3 crs.)

CMD 766. TRAUMATIC BRAIN INJURY. The primary purpose of this course is to organize and understand the explosions of information related to the medical, communication and psychosocial aspects of traumatic brain injury (TBI). When possible and practical, practitioners from rehabilitation agencies will supplement the instructor's lectures. (3 crs.)

CMD 785. SEMINAR IN SPEECH PATHOLOGY. The role of the speech-language pathologist as a diagnostician and interventionist in disciplinary and interdisciplinary investigations, including counseling procedures, and organization of programs for various pathologies of speech and language are considered. (3 crs.)

COMMUNICATION - CMG

CMG 701. COMMUNICATION PERSPECTIVES AND PARA-DIGMS. The intellectual history of the study of human communication from its classical foundations to contemporary perspectives and approaches. Students will explore the development of significant ideas and concepts within the dominant perspectives and paradigms in communication and rhetorical theory. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. (3 crs.)

CMG 702. RHETORIC AND LINGUISTICS. An introductory course in the underlying assumptions and applications of theories to language and composition, literary studies, cross-disciplinary and cultural studies. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. (3 crs.)

CMG 703. DRAMATIC THEORY AND CRITICISM. An introduction to dramatic theory and criticism. A seminar with interactive discussion between the students and the instructor. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. (3 crs.)

CMG 704. SEMINAR IN COMMUNICATION. A capstone seminar that develops and explores themes and issues that reflect the interdisciplinary nature of study in the communication filed. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. (3 crs.)

CMG 710. SOCIAL SCIENTIFIC RESEARCH IN COMMUNI-CATION. An introduction to social scientific research and practice in the construction of research that is appropriate to the student's area of interest in communication. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. Dual listed with: COM 481 COMMUNI-CATION RESEARCH TECHNIQUES. (3 crs.)

CMG 711. COMMUNICATION THEORY. A survey of current theories of human communication this course gives students an opportunity to analyze and evaluate theories and to engage in the development and testing of new theory. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. Dual listed with: COM 490 COMMUNICATION THEORY. (3 crs.)

CMG 712. COMMUNICATION CRITICISM. A study of historical and critical perspectives and methodologies in communication criticism. Analysis of significant texts from a variety of contexts and genres. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. Dual listed with: COM 460 SPEECH CRITICISM. (3 crs.)

CMG 713. PUBLIC RELATIONS CAMPAIGNS. This course seeks to integrate all the skills required of the professional in designing and executing a complete public relations campaign. This is a seminar in which team and group efforts, rather than individual productivity, are emphasized. Prerequisite: admission to the Communication Graduate Program or consent of the Coordinating Committee and instructor. Dual listed with: COM 483 PUBLIC RELATIONS CASES, PROBLEMS, AND CAMPAIGNS. (3 crs.)

CMG 714. MASS MEDIA AND SOCIETY. An examination of the ways current mass media systems enhance and undermine the the kinds of communication necessary for an open and democratic society. It provides an advanced orientation to the history, theory and process of mass communication. Particular emphasis is given to the relationships among various media and their audiences, media law and ethics, media and politics, media effects, and emerging trends and their implications for society. Prerequisite: COM 105 or

consent of the instructor. Dual listed with: COM 445 RADIO AND TELEVISION IN A FREE SOCIETY. (3 crs.)

CMG 715. INTERNATIONAL BROADCAST SYSTEMS.
International broadcasting presents an overview of world broadcasting systems. It prepares the student to function as a person with a world view of the field of electronic mass communication.
Prerequisites: COM 355 and COM 105. Dual listed with: COM 401 INTERNATIONAL BROADCASTING SYSTEMS. (3 crs.)

CMG 716. PROFESSIONAL VIDEO COMMUNICATION. Professional Video Communication presents to the student the field of business and institutional video. It prepares the student to function as a corporate writer, producer, director, and editor of desktop videos, video press releases, video conferences, training tapes and other business and institutional videos. Prerequisites: COM 100, COM 105 and COM 355. Dual listed with: COM 410 PROFESSIONAL VIDEO COMMUNICATION. (3 crs.)

CMG 721. SEMINAR IN INTERPERSONAL COMMUNICA-TION. An examination of current theory and research in interpersonal communication from dfferent perspectives with an emphasis on students conducting basic and applied research in a variety of interpersonal arenas such as personal relationships, families, superior/subordinate relationships, etc. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 722. SEMINAR IN ORGANIZATIONAL COMMUNICA-TION. An examination of current theory and research in organizational communication with an emphasis on key organizational variables such as the influence of internal and external communication networks on organizational activities, and the development and management of organizational culture and climate. Applications to research and interventions in actual organizations will be included in the course. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 723. SEMINAR IN PUBLIC RELATIONS. This course surveys theory and research related to a variety of topics such as issues management, public opinion processes, persuasion, and social movements as these influence public relations activities. Students will complete research projects that focus on the application of theory to actual public relations campaigns and activities. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 724. SEMINAR IN INSTRUCTIONAL COMMUNICA-TION. This course surveys current theory and research on Instructional Communication regarding the nature and role of communication in instructional contexts. Students will be expected to be educated consumers and producers of research on the relationships among communication, learning, and instruction. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 725. LANGUAGE AND SOCIAL INFLUENCE. The focus of the course will be on the influence of language on social, behavioral, and epistemic practices in contemporary society. Case analysis of the role language has played in framing or influencing understandings and actions in different contexts and situations will be a dominant feature of the course. Students will develop specific

applications of current theory on the influence of language to areas such as public relations, advertising, political communication, popular culture, and the media. Prerequisite: admission to the Communication Graduate Program or consent of the Instructor. (3 crs.)

CMG 726. PRODUCTION THEORY AND PRACTICE. An examination of a variety of topics which relate to the artist's production choices. These might include: the nature of the text and signification of visual media, modes and other issues of narrative, genre, ethics, aesthetics, creativity; and the individual artists role in a collaboration process. The course should remain flexible and not be defined as a production course; the student would be free to choose either a video production or a paper as a course project. Prerequisite: admission to the Communication Graduate Program or consent of the Instructor. (3 crs.)

CMG 727. SEMINAR IN MASS COMMUNICATION. An examination of contemporary topics in mass communication that focus on the developments and trends in mass communication theory and research, legal and ethical issues associated with the media, technological developments, and the influence of current social and political events on the media industry. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 728. MASS MEDIA THEORY AND CRITICISM. An examination of the critical traditions in mass media analysis, with emphasis placed on outside influences (for example: art, literary criticism, psychology, sociology) as well as on the ideas and critical practices originating from within the disciplines. Special attention would be given to areas of conjunction and conflict among the various disciplines that contribute to an understanding of mass media. Prerequisites: Admission to the Communication Graduate Program or consent of the Instructor. (3 crs.)

CMG 730. STUDIES IN WRITING. This is a course on writing about writing. Students will read books and essays by professional writers discussing their ideas concerning craft, reviewing work by their peers, considering work within their genre and, in general, providing a definition of what it means to be a writer. This is also a writing course where students will be asked to experiment with different styles and approaches to their own poetry, fiction, nonfiction, or drama. Prerequisite: admission to the Communication Graduate Program or consent of the Instructor. Dual listed with: ENG 352 STUDIES IN WRITING. (3 crs.)

CMG 731. NEWSPAPER REPORTING. Newspaper Reporting is a professional-level course designed to acquaint students with basic newsroom procedures and instruct them through practical exercises in the basic techniques of reporting for a daily newspaper. Prerequisites: Journalism I and II. Dual listed with: ENG 334 NEWSWRITING. (3 crs.)

CMG 732. PUBLISHING THE MAGAZINE. Students in this course publish a magazine, Flipside. They contribute works of literature and reportage, illustrate them with original work or with photographs, solicit contributors, finance the magazine through advertising and establish editorial policy. Prerequisite: admission to the Communication Graduate Program or consent of the Instructor. Dual Listed with: ENG 351 PUBLISHING THE MAGAZINE. (3 crs.)

CMG 733. PRESS LAW AND ETHICS. This course helps student journalists understand not only what they can or can't do by law, but what they should or should not do within commonly accepted standards of good taste and morality. Prerequisite: admission to the Communication Graduate Program or consent of the Instructor. Dual Listed with: ENG 306 PRESS LAW AND ETHICS. (3 crs.)

CMG 734. WRITING FOR PUBLICATION. Upgrade publication to local, regional and national newspapers and magazines through the application of proven methods of market analysis, magazine selection, editorial queries, and topical research for multiple article development. Students review copyright, tax, and contract laws and learn how to set up proper records so they can approach writing as a business. Prerequisites: Students should have equivalent course work or experience in the field. Dual listed with: ENG 496 WRITING FOR PUBLICATION. (3 crs.)

CMG 735. ADVERTISING. An introduction to marketing theories, behavior patterns, and techniques of advertising campaigns: copywriting, layout and production of advertising through working for an actual client. Prerequisites: ENG 101, 102, and at least one journalism course, or the permission of the instructor. Dual listed with: ENG 437 ADVERTISING. (3 crs.)

CMG 736. COPYWRITING. This course focuses on the craft of copywriting for print, radio and television. Principles of advertising and writing print ads will be reviewed, radio and television copywriting will be studied and practiced, and preparing a total promotional campaign will be studied and applied to real situations, both on and off campus. Prerequisite: Advertising or permission of the instructor based on successful completion of other writing courses. Dual listed with: ENG 401 COPYWRITING. (3 crs.)

CMG 737. SEMINAR IN CREATIVE WRITING. The course will help students develop the habits of a professional writer, e.g., writing regularly; writing with discernment; and writing with an eye toward getting work into print. The professor will provide detailed critiques of student manuscripts. Prerequisite: Admission to the Communication Graduate Program or consent of the instructor. Dual listed with: ENG 495 CREATIVE WRITING SEMINAR. (3 crs.)

CMG 738. ADAPTATION OF LITERARY MATERIALS. Through reading and writing of assignments, lectures, class and individual criticism, and, whenever possible, actual production, the student learns the mechanics of adapting fiction, narrative poetry, and plays to media other than those envisioned by the original author. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: ENG 430 ADAPTATIONS OF LITERARY MATERIAL. (3 crs.)

CMG 740. SEMINAR IN PROFESSIONAL WRITING THEORY AND PRACTICE: NON-FICTION/CREATIVE. A course for seasoned professional writers to improve skills and publication record and to establish successful marketing and writing habits. Prerequisite: course work in article writing, journalism, or creative writing depending on field selected, and/or experience in that field. Publication is recommended. Familiarity with at least one word processing system is essential. (3 crs.)

CMG 741. SEMINAR IN TEACHING PROFESSIONAL WRIT-ING. This course is designed to help prepare graduate professional writing majors for the classroom. Students will become familiar with various techniques and approaches to teaching professional writing. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 742. ADVERTISING WORKSHOP. An advanced workshop for people seriously interested in advertising as a profession, this course offers students the opportunity to work under controlled agency conditions with actual clients. A prior knowledge of marketing and advertising theory is essential. Prerequisites: Advertising, Copywriting, and/or experience. (3 crs.)

CMG 743. SEMINAR IN STYLE. This course is a comprehensive investigation of the matter of style, its definition, history and components. Students will be introduced to, and will be expected to conduct analyses of, the following elements of style: diction, metaphor, symbolism, allusion, point of view, sentence (type, length, arrangement, rhythm), irony, and tone. The course concludes with the students own stylistic self-analyses. Prerequisites: students should have a working knowledge of grammar, professional experience or undergraduate course work in English or professional writing and, if possible, prior publication. (3 crs.)

CMG 744. RHETORIC FOR WRITERS. An introductory course in theoretical, historical, and technical rhetoric, particularly the theory and practice of social, literary, political and pedagogical aspects of rhetoric and writing. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 750. STAGE PRODUCTION. Advanced practice and principles of scenery and property construction. Practical experience with plastics, metals, drafting and advanced woodwork is stressed. Prerequisite: LIGHTING I or consent of the instructor. Dual listed with: THE 341 STAGECRAFT II. (3 crs.)

CMG 751 LIGHTING FOR THE STAGE. Advanced theory and practice of lighting design for stage and television. Practical experience is stressed. Prerequisites: LIGHTING I or the consent of the instructor. Dual listed with: THE 304 LIGHTING II. (3 crs.)

CMG 752. HISTORY OF COSTUME. A survey of the history of costume in the western world. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 308 HISTORY OF COSTUME. (3 crs.)

CMG 753. TOPICS IN THEATRE HISTORY I. The development of theatre from its origins to the Baroque, including representative plays. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 302 HISTORY OF THEATRE I. (3 crs.)

CMG 754. TOPICS IN THEATRE HISTORY II. The development of theatre from the 18th century to present, including representative plays. Prerequisite: admission to the Communication Graduate Program or Consent of the instructor. Dual listed with: THE 312 HISTORY OF THEATRE II. (3 crs.)

CMG 755. TOPICS IN AMERICAN THEATRE HISTORY. The history of American theatre from Colonial times to present, including representative plays. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 303 AMERICAN THEATRE HISTORY. (3 crs.)

CMG 756. READER'S THEATRE. The principles and practices of a group organizing and presenting literature in primarily acoustic methods. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 309 READER'S THEATRE. (3 crs.)

CMG 757. SHAKESPEARE ON STAGE. Representative histories, comedies and tragedies, studied as blueprints for theatrical presentation. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 305 SHAKESPEARE IN THE THEATRE. (3 crs.)

CMG 758. TOPICS IN WORLD DRAMA. Classic to 19th century plays, excluding Shakespeare, studied as blueprints for theatrical presentation. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 304 WORLD DRAMA. (3 crs.)

CMG 759. TOPICS IN MODERN DRAMA. 19th and 20th century plays studied as blueprints for theatrical presentation. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 306 MODERN DRAMA. (3 crs.)

CMG 760. SCENOGRAPHIC DESIGN. Advance theory and practice of designing scenery and lighting with emphasis on designing for various environments. Prerequisite: SCENE AND LIGHT DESIGN I or the consent of the instructor. Dual listed with: THE 371 SCENE DESIGN II. (3 crs.)

CMG 761. COSTUME DESIGN. Basic principles of costume design. Students complete various design projects for specific plays selected from a variety of historical periods. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with: THE 325 COSTUME DESIGN. (3 crs.)

CMG 762. ADVANCED ACTING. This course challenges the actor's ability to demonstrate a personal and useful acting method through a wide range of textual problems, historical and modern plays, and acting styles. Prerequisite: INTERMEDIATE ACTING or consent of the instructor. Dual listed with: THE 331 ADVANCED ACTING. (3 crs.)

CMG 763. SUMMER THEATRE PRACTICUM. Provides the student with practical experience in the theatre arts. This course is designed for the practicing teacher who desires more training in the practical aspects of production. This student will receive assignments in acting, management, directing, technical, and/or design. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. Dual listed with THE 358 SUMMER THEATRE PRACTICUM. (variable credit)

CMG 768. PERFORMANCE AESTHETICS. An introduction to the science of aesthetics. This course will include the evolution of the field and the application of the science to selected works of performance art. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 769. CONTEMPORARY ISSUES IN THEATRE. A course exploring current trends in the United States and Europe covering

theatre and related fields. It will involve the study of play scripts, direction, acting, design, and technology. Prerequisite: admission to the Communication Graduate Program or consent of the instructor. (3 crs.)

CMG 770. DIRECTED STUDY IN COMMUNICATION. The student will work with a faculty member on a special project designed to enhance the student's understanding of a topic area not covered in another graduate level course. Prior to registering for directed study credit, the student will develop a learning contract in consultation with the faculty member directing the study. The contract must be approved by the student's advisor and the Coordinating Committee prior to registration for directed study credit. Prerequisites: admission to the Communication Graduate Program and permission of the Coordinating Committee, the student's advisor, and the instructor. (up to 6 credits)

CMG 771. COMMUNICATION INTERNSHIP. The student will complete assigned duties related to his or her interest area in communication and commensurate with graduate level work in an organization under the guidance of a faculty supervisor and on-site supervisor. Prior to registering for internship credit the student will develop a learning contract in consultation with the faculty supervisor and on-site supervisor. The contract must be approved by the Coordinating Committee prior to registration for internship credit. Prerequisites: admission to the Communication Graduate Program and permission of the student's advisor and Coordinating Committee. (up to 6 credits)

CMG 800. INTRODUCTION TO GRADUATE STUDY IN COMMUNICATION. This course provided an introduction to the study of communication and to research methodology and methods from the social sciences and humanities that contribute to understanding communication. The interdisciplinary nature of communication research must be emphasized as the course prepares students for graduate study. The nature of the course as an introductory survey of research in the Communication field does not preclude students completing additional credits in research methods courses within their programs of study. Prerequisite: admission to the Communication Graduate Program or permission of the Coordinating Committee and the instructor. (3 crs.)

CMG 890. RESEARCH PROJECT. The student will conduct an independent study of a significant topic under the guidance of an advisor. The topic may have either a basic or an applied research focus. The final report on the project will be presented as a written document that conforms to the most recent version of the Modern Language Association style or the American Psychological Association style. Prerequisites: admission to the Communication Graduate Program and permission of the Coordinating Committee and the student's advisor. (3 crs.)

CMG 891. THESIS. The student will conduct an independent, original study or application of a significant topic under the guidance of an advisor and committee. The thesis will be presented as a written document that conforms to the most recent version of the American Language Association style or the American Psychological Association style. Prerequisites: admission to the Communication Graduate Program and permission of the Coordinating Committee and the student's advisor. (3 crs.)

COMPUTER SCIENCE - CSC

CSC 700. COMPUTER OPERATIONS. Designed for the graduate student who wishes to study the theory of the operation of the computer, this course looks at computer operations on the mainframe computer, minicomputer, and microcomputer. Emphasis is placed on the study of the hardware of the computer and its peripheral devices, along with operating systems of the computer. Prerequisite: CSC 771. (3 crs.)

CSC 724. COMPUTER GRAPHICS. The utilization and development of graphics software with an emphasis on business and scientific applications. Laboratory sessions utilize the computer via interactive graphics terminals. Prerequisites: CSC 772. (3 crs.)

CSC 734. METHODS IN NUMERICAL ANALYSIS. Seeks to bring about understanding of efficient numerical methods for the solution of algebraic, transcendental, and differential equations. Topics include numerical solution of large systems of linear equations using direct and iterative methods; calculation of eigenvalues, eigenvectors, and inverses of matrices; numerical integration and differential equations; interpolation and curve fitting. Prerequisites: Calculus, Knowledge of Discrete Mathematical Structures or CSC 735 and programming experience in one high-level computer language. (3 crs.)

CSC 735. DISCRETE COMPUTATIONAL STRUCTURES. This course provides the requisite context for theoretical computer science. Topics include algebraic structures such as groups, semigroups, fields, and lattices. Application studies in combinatorics, coding theory, finite state machines, modular arithmetic, and graph theory. Prerequisites: Linear Algebra; programming experience in high-level or in Assembly computer languages. (3 crs.)

CSC 755, COMPUTER LANGUAGE AND DESIGN. An examination of the various facets of language design and their implementations. Topics covered include syntax and semantic definitions, data abstractions, strong typing, control structures, modularization techniques, and issues of program correctness. Prerequisite: CSC 777. (3 crs.)

CSC 756 DATA BASE MANAGEMENT SYSTEMS. Increases understanding of how data resources can be managed to support effectively information systems in organizations. The graduate student is taught the application, logical, structure, and physical implementation of database systems. Prerequisite: CSC 782 with CSC 777 recommended. (3 crs.)

CSC 757. HYPER MEDIA PROGRAMMING CAI. The design, development, and evaluation of instructional software will be discussed in this course. Students will apply learned instructional design theories by using an appropriate software authoring package. Prerequisite: Hands-on experience in at least one computer-related course. (3 crs.)

CSC 771. COMPUTER AND INFORMATION SCIENCE I. An introduction to such digital computer concepts as data input, data representation, data output, secondary storage devices, flow charting and program logic, and operating systems, business systems, and information systems. The course shows the impact of computers on business, and the graduate student learns elements of Pascal and programming techniques in that language. Emphasis on problem solving by means of computer programming. (3 crs.)

CSC 772. COMPUTER AND INFORMATION SCIENCES II. Graduate students become acquainted with peripheral devices in programming. This is principally an advanced course in C language, using the computer to solve problems in a variety of areas. (3 crs.)

CSC 775. SYSTEMS ANALYSIS. An introduction to the study of computer-based management information systems. Topics include the analysis, design, and implementation of management information systems, the operation characteristics of a management information system, and the functional parts of a management information system, file structure techniques, data communication characteristics and system implementation models. Prerequisite: CSC 771. (3 crs.)

CSC 777. DATA ORGANIZATIONS. Design, implementation, and analysis of data structures and techniques for information processing, including, character strings, aggregates such as records and files, abstract structures such as stacks, queues, sorting, and storage management. Prerequisites: Knowledge of Discrete Mathematical Structures or CSC 735 and programming experience in one high-level computer language. (3 crs.)

CSC 778. COMPUTER SYSTEMS ARCHITECTURAL STRUCTURES. The course progresses from an introductory overview of computer organizations through a detailed examination of the components and operations of modern computer systems. Prerequisite: assembly programming. (3 crs.)

CSC 781. PROGRAMMING WITH COBOL. The concepts and theory of data processing through the components of structured COBOL programming. Prerequisite: One course in computer science. (3 crs.)

CSC 782. ADVANCED PROGRAMMING WITH COBOL. The structured methodology of program design, development, testing, implementation, and documentation of common business-oriented applications using COBOL. Includes coverage of sequential and random access files and processing techniques and development of programs and systems of programs for batch and interactive environments. Prerequisites: CSC 781. (3 crs.)

CSC 783. ASSEMBLY LANGUAGE. Architecture and instructions, including coding control structures, indexing, indirect addressing, character manipulation, subprograms, and macros. Prerequisites: CSC 771, CSC 772 and CSC 777. (3 crs.)

CSC 796. SOFTWARE ENGINEERING. An introduction to software engineering through the use of the Ada programming language. Students will study software requirements, specifications, design, module coding and testing, integrationand software maintenance. Prerequisites: CSC 223. (3 crs.)

EARLY CHILDHOOD EDUCATION - ECE

ECE 723. EARLY CHILDHOOD MATH & SCIENCE SEMINAR. Emphasis is on understanding the cognitive development of the child ages birth through eight years, and applying this knowledge to the interdisciplinary teaching of science and math. This course will inform students regarding the history of science and math curricula for young children, the appropriate math and science content for this age, and strategies for process-oriented teaching of this content. Students will deal with relevant affective issues such as learned fear of science or math, and differentiated sexual expectations for the learning of science or math. (3 crs.)

ECE 724. READING & COMMUNICATIVE ARTS SEMINAR. This course prepares early childhood students to become facilitators of early literacy learnings. Content stresses a holistic philosophy while integrating the four language modes of listening, reading, speaking, and writing across curriculum areas. Lesson planning, micro-teaching, and instructional strategies for teaching and supporting young readers and writers is emphasized. (3 crs.)

ECE 725. SOCIAL ISSUES/SOCIAL STUDIES STRATEGIES IN EARLY CHILDHOOD EDUCATION. The graduate student will examine society's demographics as they relate to the social sciences and our social human dilemmas. How children can effectively grow in our society and develop responsible citizen roles is the keystone to an improved environment and quality of life. The graduate student is expected to bring an already established network of information on the development of children as well as a working knowledge of normal, social growth patterns. (2 crs.)

ECE 726. CHILDHOOD FIELD EXPERIENCE. Prerequisites: ECE 748. (2 crs.)

ECE 727. ADMINISTRATION AND DIRECTORSHIP OF CENTERS. (3 crs.)

ECE 728. EARLY CHILDHOOD EDUCATION SEMINAR. The purpose of this course is to research, discuss, and evaluate critical issues in Early Childhood today. The student will use problem solving, critical and creative thinking skills as they reflect and make recommendations on controversial issues impacting on young children today. Poverty, divorce, child abuse, neglect, health related issues, developmentally in appropriate programs, play, and current legislation impacting on children and programs are some of the topics students will address. Students will work in groups as they deal with the challenges and professional responsibilities facing Early Childhood teachers today. (2 crs.)

ECE 729. LANGUAGE DEVELOPMENT & EMERGING LITERACY. The graduate level student is expected to bring a basic understanding of children's language differences, both familial and regional, and their effect on children's efforts to learn. How children function in educational settings should be the focus of students wishing to maximize their information base in language-development-methodology. Research efforts in language development will be examined in order to determine instructional design for young children. (3 crs.)

ECE 730. EARLY CHILDHOOD MATH SEMINAR. (3 crs.)

ECE 732. THEMATIC TEACHING IN EARLY CHILDHOOD. (3 crs.)

ECE 745. INSTRUCTIONAL STRATEGIES. First hand experiences for students in a teaching/learning situation structured for young children (Infancy - 8 years of age). The student will plan, implement and evaluate learning situations. Lectures with individual and small group activities will enable the student to make informed decisions about life in the early childhood classroom as well as provide a vehicle for professional growth. (2 crs.)

ECE 748. CHILD GROWTH & DEVELOPMENT. The graduate level student in Early Childhood Education is expected to bring an informal perspective to the study of young children. The research as

well as pragmatic aspects of children's learning/growing development will be discussed, documented and practiced. (3 crs.)

ECE 749. PARENT INVOLVEMENT. This course emphasizes the importance of the parents and the community in the framework of educational planning for the young child. The graduate student will demonstrate skill in planning and implementing programs for parents, parent education workshops, adequate interview and conferencing techniques, and in effectively using parents and community resource people in planning the child's educational experiences. (2 crs.)

ECE 759. RESEARCH IN EARLY CHILDHOOD. This is an introduction to research with a concentration on the early childhood years. The emphasis will be on interpretation of research studies and journal articles. Students will become familiar with the library resources relati sion of the toresearch. The three main types of research will be analyzed as a means of assisting the student in acquiring knowledge concerning research techniques. The graduate student is given opportunities to demonstrate the ability to read and conduct research relevant to Early Childhood Education. (2 crs.)

EARTH SCIENCE - EAS

EAS 527. TECTONICS. The nature of the earth's tectonic framework. The following topics are of major concern: the location of tectonic elements, theories of orogenesis, especially plate tectonics, crustal types and provinces, magma and plate boundaries, the nature of convergent, divergent, and strike-slip margins, and the Appalachian orogen. (3 crs.)

EAS 538. COMPUTER APPLICATIONS IN WATER RE-SOURCES. An upper-level course designed to provide students opportunity to apply computer and mathematical procedures to the solution of hydrologic problems Application from other areas within the earth sciences may be considered. (3 crs.)

EAS 541. ADVANCED ENVIRONMENTAL GEOLOGY. This course deals with the natural environment, particularly geologic factors that may impact upon life or way of life of human beings. Emphasis is placed on an in-depth study of environmental problems and possible alternative solutions to such problems. Basic engineering principles as applied to geological problems are considered. Laboratory exercises, problems, and written reports are an integral part of the course. (3 crs.)

EAS 542. APPLIED CLIMATOLOGY. An advanced course that deals with the application of various analytical methods and classification systems in climatology. The Koppen classification of climates is stressed. The climate patterns of each continent and the factors which produce them are investigated. Prerequisite: EAS 242 or instructor permission. (3 crs.)

EAS 548. WATERSHED EVALUATION. The purpose of this course is to analyze in detail rocks which serve for the storage and ultimately for the production of petroleum. The characteristics of these rocks will be studied in hand specimen, in thin section, in cores, and on well logs. Laboratory work and problem solving are emphasized. (3 crs.)

EAS 551. INVERTEBRATE PALEONTOLOGY. This course involves a detailed study of fossil representatives of the various invertebrate phyla as well as a consideration of the more important of these as index fossils. Emphasis is on laboratory exercises and problem solving. It is hoped that this course will prove to be of interest to students in biology as well as those in geology. (3 crs.)

EAS 563. COASTAL GEOMORPHOLOGY AND MARINE RESOURCES. A study of the physical processes that shape coastal landforms and the pelagic and neritic resources of the oceans. Topics include longshore transport, wave action, swash zone dynamics, estuarine and deltaic geomorphology, ferromanganese and petroleum resources, and beach structure. Prerequisite: EAS 163 or permission of the instructor. (3 crs.)

EAS 713. APPLIED EARTH SCIENCE. Investigation of problems in the earth sciences that cross the disciplinary boundaries of hydrology, meteorology, geology, and climatology. Library research, field investigations, and laboratory work will lead to an extensive research paper. (3 crs.)

EAS 720. HYDROLOGY. A survey course relating to the existence of water on Earth. Topics include the occurrence and movement of water, physical and chemical characteristics of water, and climatologic and geologic consideration of water. (3 crs.)

EAS 725. WEATHER ANALYSIS. The course presumes that the student has a background in Elementary principles of meteorology. It is concerned with the measurements and predictions of weather. Students present findings to the class. (3 crs.)

EAS 740. SEDIMENTOLOGY. An advanced course that deals with the detailed analysis of sediments and sedimentary rocks. Both qualitative and quantitative techniques are utilized to derive the maximum information from rock samples. This information relates to the erosional, transportational and depositional history of the rocks. To the greatest extent possible, the student works independently through a complete set of problems. (3 crs.)

EAS 741. STRATIGRAPHY. A study of the basic principles governing the interpretation, correlation, classification, and naming of stratified rock units. The stratigraphy of North America is discussed, with special emphasis placed on rocks of the Pennsylvanian System. Problem solving and individual investigations are important elements of the course. (3 crs.)

EAS 742. STRUCTURAL GEOLOGY. The primary and secondary structures of rock masses and their modes of formation are covered in this course. Actual structures are examined in the field. Geologic maps and cross sections are utilized. (3 crs.)

EAS 751. OPTICAL MINERALOGY. An in depth examination of the optical behavior of mineral crystals in polarized light with emphasis on identification. The optical theories of Snell and Huygens will be detailed as they relate to the transmission of light through mineral crystals. Microscopic examination of mineral grain mounts and thin sections is emphasized. (3 crs.)

EAS 755. GEOCHEMISTRY. The basic chemical principles employed in the solution of some geologic problems. Geologic dating, sedimentary geochemistry, chemical weathering, colloids, and structural aspects of clay minerals and soils are covered. (3 crs.)

EAS 760. FIELD PROBLEMS IN EARTH SCIENCE. This course is devoted to field work and mapping techniques. It also involves visits to field locations of interest to the earth scientist and to governmental and private agencies devoted to various of the earth science disciplines. A major written report and oral presentation are required. (3 crs.)

EAS 762. FIELD PROBLEMS IN HYDROLOGY. Opportunities for the graduate student to do practical work concerning water and water budgets. Graduate students work with problems concerning storage of water, stream measurement, evaporation, infiltration and migration, aquifer testing, tracer studies, mine drainage, and domestic use. (3 crs.)

EAS 764. FIELD COURSE IN EARTH SCIENCE. For the student who wants to learn about his/her environment in situ. With a flexibility to allow for conditions, the course will include a number of trips to actual sites of meteorologic, geologic, or oceanographic significance where materials and processes can be studied. A journal of site descriptions and a report on a specific site or process will be required. (variable credit)

EAS 765. FIELD COURSE IN GEOLOGY. For the earth science student who desires to apply his/her classroom and laboratory experiences at field sites which typify geologic principles. Site selection will reflect different emphases in geology: mineralogy, petrology, paleontology, geomorphology, or hydrology. Field trips to a minimum of ten sites of geologic significance will be supplemented by laboratory exercises; detailed journal entries and a final report that will enable the student to develop analytical skills. (variable credit)

EAS 771. FIELD MAPPING. This is a field course designed for the student to learn various mapping procedures and the use of mapping instruments. Problems involve the determination of distance, direction, and evaluation. Plane table surveying and map making in the field are emphasized. (3 crs.)

EAS 780. READINGS IN EARTH SCIENCE. The course deals with selected readings in the student's area of interest in earth science. It is designed to exemplify a sense of earth science problems and to develop abilities of critical appraisal. (3 crs.)

EAS 781. RESEARCH IN EARTH SCIENCE. The organization of research in an area selected by the student with the approval of the instructor. This research is in depth and may be on a micro scale or on a macro scale. (3 crs.)

EAS 792. SEMINAR IN GEOLOGY. This course allows graduate students to consider the latest developments in geology as well as other topics of interest. Each graduate student completes a research project or library paper and presents the findings to the class, and each such project or paper is the subject of class discussion. (3 crs.)

EAS 794. SEMINAR IN METEOROLOGY. The latest developments in the field of Meteorology and Climatology. Students are required to complete a research project and present findings to the class. (3 crs.)

EAS 796. SEMINAR IN OCEANOGRAPHY. Selected topics in geological, biological, physical, and chemical oceanography.

Students are required to present a series of eleven short papers and one long paper. Class periods will involve the students in discussions of oceanographic topics presented. (3 crs.)

EAS 800. METHODS OF RESEARCH IN EARTH SCIENCE. Consideration of purpose, scope and procedures of earth science research including problem statement, data collection and data analysis. The course culminates with the development of a problem which demonstrates research ability. (3 crs.)

EAS 829. RESEARCH PROJECT. A written report on a specific topic of investigation, based on knowledge of the subject, research techniques, and accurate presentation of the material. (2 crs.)

EAS 849. MASTER'S THESIS. A written report of exhaustive research into a specific area of investigation, demonstrating thorough knowledge of the background of a subject, the published literature on a subject, and high standards of original research and presentation. (4 crs.)

ECONOMICS - ECO

ECO 601. SURVEY OF ECONOMICS. A one-semester introduction to the principles of economics and their applications to the leading economic problems of society. (3 crs.)

ECO 711. MICROECONOMIC ANALYSIS. Analysis of the theories of consumer behavior, resource allocation, externalities, production and pricing policies of firms. (3 crs.)

ECO 712. MACROECONOMIC ANALYSIS. An analysis of the determination of national income, employment and price levels, with discussion of consumption, investment, inflation, government fiscal and monetary policies, international trade, and their relevance to business and industry. (3 crs.)

ECO 721. MANAGERIAL ECONOMICS. The tools and techniques of economic analysis are used to analyze and solve business and industrial decision-making problems. (3 crs.)

ECO 731. ECONOMETRIC METHODS. An introduction to statistical estimation in mathematically formulated economic relationships, including the discussion of auto correlation, heteroskedasticity, dummy variables, functional forms, and distribution lags. Computer use is emphasized. (3 crs.)

ELEMENTARY EDUCATION - EDE

EDE 700. HISTORICAL BACKGROUND OF THE ELEMENTARY SCHOOL. An historical review of elementary education from the distant to the very recent past, designed to develop interplay between past and current educational controversies by contrasting and comparing various personalities and issues. (2 crs.)

EDE 701. DEVELOPMENT AND ORGANIZATION OF THE CURRICULUM. Provides a complete understanding of the history, organizational patterns and resources available for the development of the school curriculum. Special emphasis is given to recent trends in elementary curriculum development. Students receive an introduction to the many facets of curriculum development. Varied opportunities are provided for the students to acquire comprehension knowledge through papers and readings. (3 crs.)

EDE 706. EVALUATION AND MEASUREMENT IN THE ELEMENTARY SCHOOL. To gauge success in the practice of teaching and to explore the science of learning, educators (and psychologists) need measuring instruments. We look at the construction, calibration, and application of those instruments used to measurement achievement, intelligence, and aptitude. We examine the limitations inherent in such instruments, and take note to debunk the most egregious and exaggerated claims of some test publishers. This course presumes no statistical sophistication on the part of the students. (2 crs.)

EDE 708. DEVELOPMENTAL READING IN THE ELEMENTARY SCHOOL. Emphasis is placed on reading trends and various procedures for teaching reading. Through research findings, current literature and discussions, the student will be able to organize, administer, and evaluate a developmental reading program. (2 crs.)

EDE 715. RECENT TRENDS IN LANGUAGE ARTS. Research findings and current classroom practices in the teaching of language arts. Methods of updating past teaching practices are considered and evaluated. (3 crs)

EDE 716. SPECIAL PROBLEMS IN ELEMENTARY SOCIAL STUDIES. Current problems in teaching social studies, planning programs, methods of teaching, and evaluating materials for use in public schools are discussed. (3 crs.)

EDE 718. ARITHMETIC IN THE ELEMENTARY SCHOOL. Understanding the child's perceptions and cognitive development as they relate to mathematics. Activities appropriate to the developmental and academic levels of elementary school children are demonstrated. (2 crs.)

EDE 721. SEMINAR IN ELEMENTARY TEACHING. An overview of elementary school teaching in the 1990's. Observation and participation in field sites is an integral part of the course activities. Students identify specific practices in elementary schools that conform to the developmental interactionist model of teaching/learning. (2 crs.)

EDE 723. INSTRUCTIONAL STRATEGIES. A review of current research on instructional practices in elementary schools. There is a special focus on analyzing research related to the developmental interactionist view of teaching and learning. (3 crs.)

EDE 730. TEACHING IN KINDERGARTEN AND THE PRI-MARY GRADES. The purpose, direction, curriculum development, materials, and techniques for working with children in kindergarten and the primary grades. (2 crs.)

EDE 737. LITERATURE AND LITERACY K-12. This course presents future teachers and inservice teachers with approaches and strategies for using children's and adolescents' literature as a basis for the reading program and as a framework throughout the curriculum. The course uses the constructivist model to accomplish its objectives. (3 crs.)

EDE 740. RECENT TRENDS IN ELEMENTARY SCHOOL SCIENCE. Representative samples of elementary science curricula. Emphasis is on the inquiry approach to teaching science, which

actively involves children with science materials. The implications of psychological studies are included in relation to the elementary science curricula. Teachers engage in actual laboratory activities appropriate for elementary science. (3 crs.)

EDE 790. INDEPENDENT STUDY. Independent Study allows the graduate student the opportunity to research any of a number of topics that lend themselves to individual investigation and/or design in Elementary and Early Childhood Education. (1-3 crs.)

EDE 795. STUDENT TEACHING INTERNSHIP. During this internship the student is assigned to work in two classrooms in the public schools. Under supervision, the student observes and participates in all teaching activities related to the performance of a teacher's work in the elementary grades. Besides field work, students attend practicum class once a week. Discussions are centered around the current materials utilized in all subject areas. Pennsylvania school laws relevant to the work of the classroom teacher are analyzed and discussed thoroughly. Opportunities are provided to discuss problems encountered by the students in their student teaching experiences. Teaching opportunities are identified and discussed on a weekly basis. (9 crs.)

EDE 795. STUDENT TEACHING INTERNSHIP. Student is assigned to work in two classrooms in the public schools or other appropriate settings. Under supervision, the student observes and participates in all teaching activities related to the early childhood or elementary grades. Students attend practicum class once a week. Discussions cover current materials utilized in all subject areas. Pennsylvania school laws relevant to the work of an early childhood or elementary teacher are analyzed and discussed. Opportunities are provided to discuss problems encountered in their student teaching experiences. Teaching opportunities are identified and discussed on a weekly basis. (9 crs.)

ENGLISH - ENG

ENG 701. COMPOSITION THEORY AND PRACTICE. The study of theories of writing and approaches to pedagogy, emphasizing the latest research and contemporary practice in the field. (3 crs.)

ENG 705, INTRODUCTION TO OLD ENGLISH. An introduction to the earliest period (c. 600-1100) of the English language, in order to enable the graduate student to read such works as Beowulf in the original. (3 crs.)

ENG 706. MIDDLE ENGLISH. The literature and the language of the period 1100-1500, with special emphasis on writers and writings of the fourteenth and fifteenth centuries, such as Sir Thomas Malory, William Langland, the lyric poem, and the romance. (3 crs.)

ENG 707. LINGUISTICS. An introduction to the systematic study of language, by way of modern American English. The elements of language - sounds, words and inflections, grammar and syntax, usage - are considered in such a way as to enable the graduate student to pursue further linguistic studies and to use linguistic insights in teaching and writing. (3 crs.)

ENG 710. HISTORY OF THE ENGLISH LANGUAGE. The origins, growth, and development of the world's most widespread

and important language. The sounds, words, and grammar of English are treated in relation to major historical events that have affected the structure of modern-day British and American English. No previous knowledge of linguistics is assumed. (3 crs.)

ENG 711. PROBLEMS IN THE TEACHING OF WRITING, GRADES K-12. This course is intended to assist graduate students or in-service teachers to examine their assumptions about the teaching of writing, by studying current theories of rhetoric and by writing in various modes for various purposes. Graduate students also become acquainted with research relating to style and with theories of writing assessment. (3 crs.)

ENG 714. EVALUATING WRITING, GRADES K-12. A comprehensive summary of the best current information describing writing and measuring growth in writing. The emphasis is on how to use methods of evaluation as a means of improving writing skills and at the same time minimizing the time devoted by the teacher to the evaluation of written work. (3 crs.)

ENG 715. CHAUCER. A survey of the works of Geoffrey Chaucer, "the father of English poetry," with special attention to his early poems through Troilus and Criseyde and to selected Canterbury Tales. The poetry is read in the original Middle English, and the cultural background is considered, but the emphasis is on Chaucer's literary artistry. (3 crs.)

ENG 716. MIDDLE ENGLISH DRAMA. English plays and playwrights from the beginnings in the churches and monasteries to the great communal dramas of the fourteenth and fifteenth centuries, to the new vitality of the Renaissance, culminating in the works of Christopher Marlowe, Thomas Kyd, and Shakespeare. (3 crs.)

ENG 717. SHAKESPEARE. An introduction to the history of Shakespeare criticism and a presentation and discussion of the Elizabethan world-view frame the analysis of selected plays of Shakespeare. The graduate student is expected to develop an awareness of the major critical views and apply them to the plays. (3 crs.)

ENG 718. SIXTEENTH-CENTURY NON-DRAMATIC LITERA-TURE. A study of the search for literary form and the gradual establishment of English as an appropriate and effective vehicle for serious literature. Some of the authors considered may be John Skelton, Thomas Wyatt, the Earl of Surrey, Edmund Spenser, Philip Sidney, Sir Walter Raleigh, Thomas Lyly, Michael Drayton, and Thomas Campion, as well as the non-dramatic works of Ben Jonson, Christopher Marlowe, and William Shakespeare. (3 crs.)

ENG 725. NON-DRAMATIC ENGLISH LITERATURE 1600-1660. Close reading and discussion of the principal poetic tradition - Metaphysical, Jonsonian, and Spenserian poetry - and a study of the maturing of English prose style, all within the context of a society self-consciously aware of shedding the intellectual trappings of one age and adopting a new, "scientific" view of the world. (3 crs.)

ENG 727. MILTON. A comprehensive survey of the poetry of John Milton (1608-1674) and his major prose works. Special emphasis is given to the major poems, Paradise Lost, Paradise Regained, Samson Agonistes, and Lycidas, and to the major criticism written about these works. (3 crs.)

ENG 736. ENGLISH LITERATURE 1700-1744. The age of Jonathan Swift and Alexander Pope, with special attention to their topical, political, moral and literary satires. Also considered are such writers as John Gay, Joseph Addison and Richard Steele, the Earl of Shaftesbury, and Daniel Defoe and such genres as the essay, the early novel, the letter, and political and social philosophy. (3 crs.)

ENG 738. THE EIGHTEENTH-CENTURY ENGLISH NOVEL. The early novel, and Daniel Defoe, Henry Fielding, Samuel Richardson, Lawrence Sterne, Tobias Smollett, Horace Walpole, Fanny Burney, Matthew Gregory ("Monk") Lewis, Oliver Goldsmith and others. (3 crs.)

ENG 745. ROMANTIC POETRY. The works of William Blake, William Wordsworth, Samuel Taylor Coleridge, George Gordon, Lord Byron, Percy Bysshe Shelley, and John Keats, with some attention to notable criticism of their work. (3 crs.)

ENG 746. VICTORIAN POETRY. The major figures of Alfred, Lord Tennyson, Robert Browning, and Matthew Arnold, and consideration of such other important writers as Gerard Manley Hopkins, Edward FitzGerald, Elizabeth Barrett Browning, Dante Gabriel Rossetti, Algernon Charles Swinburne, A. E. Housman, Thomas Hardy, Christina Rossetti, and William Morris. (3 crs.)

ENG 747. NINETEENTH CENTURY NON-FICTIONAL PROSE. The works of such writers as Charles Darwin (science), John Stuart Mill (political philosophy), John Henry Newman (religion), John Ruskin (art and social criticism), Matthew Arnold (literary and social criticism), Thomas Carlyle (history and social criticism), Thomas Henry Huxley (science), Thomas Babington Macaulay (history), and Walter Pater (art criticism), with attention to the intellectual and social background of their work and to their rhetorical strategies. (3 crs.)

ENG 748. THE NINETEENTH-CENTURY ENGLISH NOVEL. From Jane Austen to Joseph Conrad, with representation from such masters of the genre as Austen and Conrad, Sir Walter Scott, Charles Dickens, William Makepeace Thackeray, Anne, Charlotte, and Emily Brontë, George Eliot, Walter Pater, Mrs. Elizabeth Gaskell, George Meredith, Samuel Butler, and Thomas Hardy. (3 crs.)

ENG 755. COLONIAL AMERICAN LITERATURE. An investigation of the developing literature of the American Colonies, 1607-1789, with emphasis on the intellectual, political, religious, social and economic forces shaping that literature. Primary readings include the works of Anne Bradstreet, Michael Wigglesworth, Edward Taylor, the Mathers, Jonathan Edwards, Benjamin Franklin, Thomas Jefferson, and the Federalists; secondary readings include works of intellectual history dealing with the period. (3 crs.)

ENG 756. THE AMERICAN RENAISSANCE. A study of the heart of American Romanticism, particularly those writers and works ordinarily associated with the American Transcendental movement: Ralph Waldo Emerson, Henry David Thoreau, Walt Whitman, Nathaniel Hawthorne, and Herman Melville. Edgar Allen Poe and James Fenimore Cooper may also be considered. (3 crs.)

ENG 757. THE RISE OF REALISM. A critical analysis of literary trends from the Civil War to the post-World War I era. The course

traces the development of American realistic fiction from Regional Realism (Sarah Orne Jewett, Mary E. Wilkins Freeman, and Mark Twain) to psychological realism (Henry James, William Dean Howells, and Edith Wharton). The works of Stephen Crane, Theodore Dreiser, and Jack London show the influence of Naturalism on the Realistic Movement. (3 crs.)

ENG 758. MODERN AMERICAN POETRY. The trends of twentieth-century American poetry, especially such seminal figures as Robert Frost, T. S. Eliot, Ezra Pound, and Wallace Stevens. Reading begin with the post-World War I poets; contemporary poets are also analyzed and discussed. (3 crs.)

ENG 760. CULTURAL BACKGROUNDS OF AMERICAN LITERATURE. A study of the movements and patterns in American intellectual and cultural history that have influenced the American literary scene. Emphasis is placed on contemporary authors and writings. Students are encouraged to study theories of cultural influence as well as to formulate their own theories. (3 crs.)

ENG 765. MODERN AMERICAN NOVEL. Representative novels and novelists from the end of World War I to the present; e.g., Sherwood Anderson, Ernest Hemingway, F.Scott Fitzgerald, William Faulkner, Willa Cather, Sinclair Lewis, John Dos Passos, William Steinbeck, Norman Mailer, John Updike, Flannery O'Connor, Joyce Carol Oates, William Styron, Bernard Malamud, and Saul Bellow. (3 crs.)

ENG 766. MODERN BRITISH NOVEL. Experiments in both style and language abound in the twentieth-century British novel, as novelists both expand the language and explore new realms within the conscious worlds they inhabit. The course traces these experiments through the works of such artists as James Joyce, D. H. Lawrence, Joseph Conrad, Virginia Woolf, Samuel Beckett, Joyce Cary, Elizabeth Bowen, George Orwell, Lawrence Durrell, Malcolm Lowry, Evelyn Waugh, William Golding, Muriel Spark, Margaret Drabble and Iris Murdoch. (3 crs.)

ENG 767. HISTORY OF LITERARY CRITICISM. Both historical and practical in its concerns, this course reviews the large critical trends important to both English and American literature and provides graduate students with the opportunity for work in practical criticism of individual literary works. (3 crs.)

ENG 768. MODERN BRITISH POETRY. This course considers the struggle of the British poet to hold his place in a world where "things" - including his Empire - fall apart, where twice the "blood-dimmed tide is loosed," where "innocence" on both personal and national levels is "drowned." Among those poets studied are W. B. Yeats, D. H. Lawrence, Robert Graves, Wilfrid Owen, W. H. Auden, John Betjeman, Dylan Thomas, Philip Larkin, Ted Hughes, and Seamus Heaney. (3 crs.)

ENG 770. MODERN DRAMA. The twentieth century is an age of unprecedented innovation and technical development in the theater and it is also an age in which two basic themes - alienation of the individual and illusion vs. reality - hold the stage above all others. These innovations and themes are examined in the works of such playwrights as August Strindberg, Henrik Ibsen, Oscar Wilde, Alfred Jarry, Maurice Maeterlinck, Maxim Gorki, Bernard Shaw, W. B. Yeats, Luigi Pirandello, Fredrico Garcia Lorca, Eugene O'Neill, Bertold Brecht, Clifford Odets, Tennessee Williams, Samuel Beckett, Jean Genet, Eugéne Ionesco, Harold Pinter,

William Albee, Robert Bolt, Peter Weiss, Tom Stoppard, and Sam Shepard. (3 crs.)

ENG 790. SEMINAR IN LITERARY CRITICISM. The study in detail of a particular critical theory, its history and development, and of those critics who best exemplify this tradition. Opportunity is given graduate students to show their ability to examine literary texts in the light of their study of the theory. (3 crs.)

ENG 795. SEMINAR IN ENGLISH LITERATURE. Intensive study of a single major writer, movement, or genre in English literature, for example, Sir Thomas Malory's Morte D'Arthur, William Blake, James Joyce, Romanticism, the Gothic novel, or science fiction. Seminar topics are announced in advance, and the course may be repeated for credit as the topic of the seminar varies. (3 crs.)

ENG 796. SEMINAR IN AMERICAN LITERATURE. Intensive study of a single major writer, movement, or genre in American literature, for example Walt Whitman, Nathaniel Hawthorne, Ernest Hemingway, Mark Twain, Eugene O'Neill, the Beat Poets, and the contemporary novel. Seminar topics are announced in advance, and the course may be repeated for credit as the topic of the seminar varies. (3 crs.)

ENG 800. METHODS OF RESEARCH. An introduction to the graduate study of English and of English education and to methods of bibliographical research in these fields. The course not only acquaints graduate students with standard reference works, editions, etc. but also provides an overview of some of the principal methods and preoccupations of the literary scholar and critic and the teacher of English. This course should be taken as early as possible in the graduate student's course of study. (3 crs.)

ENG 802. RESEARCH PRACTICUM/RESEARCH PROJECT. The final course in the curriculum for the Master of Education degree in English, this seminar assists graduate students in relating the ideas and content of the course work of the program to their roles as teachers and offers guidance in completing a project relevant to their particular pedagogical interests. (3 crs.)

ENG 849. MASTERS THESIS. (3 crs.)

ENVIRONMENTAL SCIENCE - ENS

ENS 773. PRINCIPLES OF WILDLIFE MANAGEMENT. This course is designed to provide students with an understanding of the philosophies and concepts of scientific wildlife management. Major emphasis will be placed on wildlife management in North America, but differing perspectives from other regions of the world will be incorporated into the course. Topics to be covered will include monitoring habitats and habitat management, population exploitation and administration, economics, and socio-political topics as they relate to wildlife management. Three lecture hours and three laboratory hours weekly. Prerequisites: BIO 115 & BIO 120. (4 crs.)

ENS 775. WETLANDS ECOLOGY. A coordinated lecture/ laboratory approach that will emphasize wetlands within the continental United States. The course will provide a background in both historical and modern wetland issues; characteristics of freshwater, estuarine and marine wetland types, including important plants and animals of each; processes of wetland determination and delineation; regulatory framework of wetlands protection; and procedures involved in wetland restoration and conservation.

Prerequisites: BIO 310 and permission of instructor. (4 crs.)

ENS 792. ANIMAL POPULATION DYNAMICS. This course is designed to provide students with an understanding of theoretical and applied aspects of animal population dynamics. The course will examine variation in population size and sex/age composition, reproduction and mortality, and quality and condition of animals in populations. Emphasis will be placed on principles and techniques used by wildlife ecologists to quantify and predict populations of vertebrate animals. The lecture portion of the course will include lecture and discussion on issues and concepts in population dynamics. The lab portion of the course will emphasize application of common techniques and models used by wildlife population ecologists. Three lecture hours and three laboratory hours weekly. Prerequisites: BIO 310 & MAT 215. (4 crs.)

FINANCE - FIN

FIN 531. BANK MANAGEMENT. Banking environment and an analysis of operational decisions faced by bank managers in the areas of loans, investments, deposit management, and capital management. (3 crs.)

FIN 711. FINANCIAL MANAGEMENT. An introduction to the role of financial manager in executive decision-making. Topics include valuation models, financial planning, analysis and control, capital budgeting, cost of capital, capital structure, and dividend policy. (3 crs.)

FIN 712. ADVANCED FINANCIAL MANAGEMENT. Topics include capital markets, common stock, debt and preferred stock financing, lease financing, warrants and convertibles, reorganization and bankruptcy, and international business finance. (3 crs.)

FIN 721. INVESTMENT MANAGEMENT. Evaluation of debt and equity security alternatives for the use of investment funds and the theory and techniques basic to control of investment risks and optimization of investment returns. (3 crs.)

FIN 731. FINANCIAL MARKETS AND INSTITUTIONS. Survey of financial markets and institutions and their relationship to the economic process; financial innovations and current topics in financial markets and institutions. (3 crs.)

GENERAL EDUCATION - GEE

GEE 501. CAREER TRANSITION SEMINAR. This course provides knowledge of an practical preparation for the world of work. Students conduct self-assessment for career planning; learn how to research particular jobs, careers, and employers; develop skills needed for obtaining a job; learn how the workplace is organized; and explore the options for combining career and life expectations. (1 cr.)

GEE 520. LANGUAGE AND SOCIETY. The course approaches the traditional goals of the study of language by the methods of modern semantics, i.e., through an understanding of the role of language in human life and through an understanding of the different uses of language. The course also shows that the language of each nation is its most distinctive cultural pattern as well as its strongest unifying force. (2 crs)

GEE 525. COMMUNITY PROBLEMS OF HEALTH AND SAFETY. The physical, social, and emotional dimensions of the health and safety problems prevalent in our society. These issues are perceived in terms of our lifestyle and concepts of personal and community health. Epidemiology, prevention, treatment, rehabilitation, legislation, education, and the role or community agencies are presented. The purpose is to enable counselors within a school or community setting to help clients deal more effectively with their problems. (3 crs)

GEE 528. EARLY CHILDHOOD AND THE EXPRESSIVE ARTS. A general experimental course which, first, provides encounters stimulating the students to discover that the arts can be modes of personal expression and communication; second, provides experiences to evoke fluency, flexibility, and originality; and, third, is an integrative experience as a holistic approach to learning involving the cognitive, affective, and psychomotor domains. (3 crs)

GEE 529. DEATH, DYING, AND IMMORTALITY. The phenomenon of death and dying in the areas of anthropology, psychology, philosophy, education, literature, religion and song. (2 crs.)

GEE 536. ARCHAEOLOGY FIELD SCHOOL. Scientific archaeological field and laboratory techniques. The basic orientation is that of research. It is assumed that students have little or no background in archaeology or anthropology. (Variable crs.)

GEE 537. COMPUTER SCIENCE. A general course in computer science for the graduate student majoring in any field in education. Topics include the early history and development of computers, simple programming concepts, and the use and application of the computer in industry and education. Major emphasis is on the educational application of the computer in such areas as computer-assisted instruction (CAI), pre-programmed statistical packages, optical-scanning devices for test scoring, simple arithmetic computation, information retrieval, etc. The course combines lecture, demonstration, and laboratory experiences in the Computer Center at the University. There are no prerequisites for this course, which is intended primarily for the non-mathematically oriented graduate student but is open to all students. (2 crs.)

GEE 586. STUDY IN HUMAN CREATIVITY. The primary purpose of this course is to formally introduce the student to the study of human creativity as an academic endeavor. It is specifically designed to establish each person's competence as a creative problem-solving facilitator (a teacher, one who is knowledgeable and skilled at applying creative problem solving methodologies). Individual, managerial and technical types of problem-solving activities will be engaged. Each student will conduct (facilitate) several problem-solving excursions. Each student will study, administer and evaluate several standardized tests that evaluate creative problem-solving skills. Students may evaluate themselves, others or both. this is a learning laboratory, action oriented course, intended to simulate real world creative problem-solving techniques. (3 crs)

GEOGRAPHY - GEO

GEO 520. PHYSIOGRAPHY OF THE UNITED STATES. A systematic survey of the major physiographic provinces in the United States. Emphasis is placed on the relationship of the underlying geology, geologic history, and climate to the development of today's landscapes. Laboratory work principally involves interpretations from air photos and topographic maps. (3 crs.)

GEO 700. PHILOSOPHY OF GEOGRAPHY. Development through oral and written presentations of the classical and contemporary concepts which define the field of geography. (3 crs.)

GEO 711. DEMOGRAPHIC ANALYSIS. An analysis of demographic processes, current situations, and consequences of population trends as they relate to urban and rural distributions.

GEO 714. URBAN ENVIRONMENT. An investigation and analysis of cities in terms of their location, distribution, classification by function and internal morphology. Geographic aspects of urban planning are emphasized. (3 crs.)

GEO 729. REGIONAL ECONOMIC GEOGRAPHY. The study of the overt results of economically oriented behavior as they appear in the landscape. Various frameworks and models are developed and applied to the "core" of economic geography, the subsystem of agriculture, manufacturing, tertiary activities, and transportation. (3 crs.)

GEO 733. LAND USE ANALYSIS. An analysis of the structure of urban and rural areas with particular emphasis on the description, patterns and trends in land use. Methods for defining, representing and evaluating land use are developed. Explanations of land use patterns are incorporated. (3 crs.)

GEO 734. SITE SELECTION. The effects of physical features and spatial economic organization upon the selection of locations for industrial and commercial activities. Attention is given both to regional position and to local site. (3 crs.)

GEO 735. MARKETING GEOGRAPHY. The distributive trades of retailing and related wholesaling and service activities. Spatial patterns of consumer catchment areas and the business centers within which they are located will be emphasized. (3 crs.)

GEO 737. GEOGRAPHIC INFORMATION SYSTEMS. This course provides an analysis of different methods and techniques of representing geographic data through the use of various manual and computer-based technologies. The focus is upon the processes involved in the collection, compilation, and display of geographic data within a data base. (3 crs.)

GEO 738. GEOGRAPHY AND PUBLIC POLICY. (3 crs.)

GEO 739. REGIONAL PLANNING. A systematic development of regionalism as a geographic concept emphasizing the regional concept as it evolved from area studies to regional science particularly as it applies to planning. (3 crs.)

GEO 751. GEOMORPHOLOGY. Experiences in geomorphology involve the study of the origin, characteristics, and classification of landforms and the processes that produce them. Extensive use is made of topographic and geologic maps, as well as aerial photographs. Emphasis in placed upon the individual's ability to interpret the geomorphic history of a region. (3 crs.)

GEO 752. CLIMATOLOGY. A study of world climatic patterns with in-depth investigations of micro-climatic regions. (3 crs.)

GEO 754. PHYSICAL ENVIRONMENT. The study of the physical aspects of the human environment including climate, soil, water, vegetation and topography. (3 crs.)

GEO 765. FIELD METHODS. Study of techniques used in making geographic observations in the field. Emphasis is on the study of natural and cultural landscape features at selected localities. (3 crs.)

GEO 766. FIELD PROBLEMS. Application of field methods to the landscape. Microstudies are conducted. (3 crs.)

GEO 768. MAP AND AERIAL PHOTO INTERPRETATION. The use of maps and aerial photographs as sources of quantitative and qualitative information and the interpretation of the natural and cultural landscapes through identification and measurements. (3 crs.)

GEO 769. COMPUTER CARTOGRAPHY. This laboratory course is designed to further the student's cartographic skills through the preparation of a cartographic project. (3 crs.)

GEO 770. STATISTICAL CARTOGRAPHY. A statistical approach to cartographic representation. Methods of data manipulation, problems of symbolization, and techniques of presentation are also emphasized. (3 crs.)

GEO 785. READINGS IN GEOGRAPHY. Selected readings in the student's area of interest in geography, designed to exemplify a sense of geographic problem and to develop abilities of critical appraisal. (3 crs.)

GEO 786. RESEARCH IN GEOGRAPHY. The organization of research in an area selected by the student with the approval of the instructor. This research is in-depth and may be on a micro scale or on a macro scale. (3 crs.)

GEO 789. COMPREHENSIVE PLANNING. Provides students with insights and experiences in applying academic skills to the planning functions of local government. A background in the many factors affecting planning decisions is provided. Emphasis is directed to proposing recommended courses of action to real and hypothetical community problems. (3 crs.)

GEO 791. SEMINAR IN REGIONAL PLANNING. In depth analysis of topics of current interest: primarily research and oral presentation of selected topics. (3 crs.)

GEO 798. SEMINAR IN GEOGRAPHY. Review of the field of geography culminating with an oral presentation of written research in the student's area of interest. (3 crs.)

GEO 800. METHODS OF RESEARCH IN GEOGRAPHY. Consideration of purpose, scope and procedures of geographic research including problem statement, data collection and data analysis. The course culminates with the development of a problem which demonstrates research ability. (3 crs.)

GEO 829. RESEARCH PROJECT. A written report on a specific topic of investigation, based on knowledge of the subject, research techniques, and accurate presentation of the material. (2 crs.)

GEO 849. MASTER'S THESIS. A written report of research into a specific area of investigation, demonstrating thorough knowledge of the background of the subject, the published literature on the subject, and high standards of original research and presentation. (4 crs.)

HEALTH AND PHYSICAL EDUCATION - HPE

HPE 500. EMERGENCY MEDICAL TECHNICIAN (EMT). Prepares students to become certified as Emergency Medical Technicians. Emphasis is placed upon the care and treatment of the ill or injured in a variety of emergency situations. Students are required to devote at least ten hours to actual in-hospital observation. Prerequisite: Age 16. (4 crs.)

HISTORY-HIS

HIS 715. THE CIVIL WAR AND RECONSTRUCTION. Causes of the Civil War; the political crisis of 1860-1861; military, political, economic, and diplomatic analysis of the war; presidential and congressional reconstruction; social, political, and economic developments; the erosion of Reconstruction and the Compromise of 1877; long-range results of the Civil War and Reconstruction Era. (3 crs.)

HIS 717. THE 1930'S IN THE UNITED STATES. A comprehensive examination of the cultural, constitutional, political, diplomatic, literary, and economic developments of the 1930s that made that decade a watershed in American history. Special attention is given to the New Deal; the political leadership of Franklin D. Roosevelt; the role of the Supreme Court; social and cultural aspects of the times, such as music and the "radical" literature of the period; the end of the isolation, the coming of World War II; and the varied theories that historians have drawn from the Thirties in America. (3 crs.)

HIS 718. THE UNITED STATES SINCE WORLD WAR II. A consideration of the major events, problems, and trends in the American experience since the Second World War, with equal attention to domestic and foreign problems. Emphasis on the revolution in Civil Rights, space, learning, and (possibly) special attention to the role of the United States as a world power. (3 crs.)

HIS 727. STUDIES IN THE SOCIAL AND INTELLECTUAL HISTORY OF THE UNITED STATES. Selected aspects of social and intellectual thought and their contributions to American civilization, with emphasis on the early evolution of American institutions and the recent impact of the city on American social and intellectual thought and institutions. (3 crs.)

HIS 728. STUDIES IN AMERICAN LABOR HISTORY. A detailed examination of particular issues in the history of the American labor movement, with special emphasis on the emergence of industrial unionism and its relation to American politics. (3 crs.)

HIS 735. STUDIES IN AMERICAN DIPLOMATIC HISTORY. A program of major themes in the history of American foreign relations, a single topic being selected for class investigation, with attention to primary and secondary sources and work of general importance in American diplomatic history. (3 crs.)

HIS 736. STUDIES IN AMERICAN URBAN HISTORY. Selected topics on the historical development of urbanism in American life, such as urban demography, ethnic group acculturation, urban politics, the impact of industrialization on urban development, and the effect of the city on American thought and social development in a particular period of the nation's history. (3 crs.)

HIS 737. STUDIES IN PENNSYLVANIA HISTORY. Selected topics in the transition from the "Holy Experiment" to the Keystone State. Emphasis is placed on such topics as the frontier role of

Western Pennsylvania, the racial origins, composition, and movements of the population, and the unique economic, political and social development of Western Pennsylvania. (3 crs.)

HIS 784. WORKSHOP IN LOCAL HISTORY. The study and analysis of the political, economic, and transportation developments at the borough, township, county and city levels, in which nonelites are emphasized. (3 crs.)

INDUSTRIAL MANAGEMENT-IMT

IMT 707.INDUSTRIAL SAFETY.An overview of occupational accident prevention programs, covering the techniques of measurement, associated costs, accident sources, and problems of selective corrective actions. (3crs.)

IMT 709.TIME AND MOTIONS STUDY. An introduction to methods engineering in industry, surveying the methods designed to improve performance of both individuals and groups through motion analysis and principles of motion economy. (3crs.)

IMT 765.OPERATIONS RESEARCH. An examination of quantitative methods of decision-making in production, marketing, and finance. Topics include inventory, assignment, transportation, and linear programming problems. Deterministic, stochastic, and games theory models are utilized. (3crs.)

IMT 790.MANAGEMENT INTERNSHIP. This program involves integration of classroom studies with professional work experience. (3crs.)

MANAGEMENT - MGT

MGT 711. GENERAL MANAGEMENT. An analysis of modern complex organizations, with emphasis on those areas of individual and group behavior that are directly relevant to all levels of management. (3 crs.)

MGT 712. ORGANIZATIONAL BEHAVIOR. Focuses on the behavioral science concepts and research findings directed toward the understanding and explanation of human behavior within organizations. Topics covered include individual processes, group processes, organizational processes, work setting and change processes. (3 crs.)

MGT 721. PRODUCTION MANAGEMENT. Problems, techniques, and other topics associated with the management of production in industry. Topics include forecasting, inventory control, scheduling, sequencing, and design of production facilities. (3 crs.)

MGT 731. INDUSTRIAL RELATIONS. A survey of the legislation regulating employer-employee relations in the United States today and an examination of the relationships between workers and their managers. Special emphasis is given to collective bargaining, wage and hour requirements, equal opportunity regulations, and conflict resolution. (3 crs.)

MGT 742. HUMAN RESOURCE MANAGEMENT. Theory and practice of personnel management and analysis of personnel problems for managers. Topics include human resource planning, selection, training and development, performance appraisal, compensation administration and equal employment opportunity. (3 crs.)

MGT 751. INTERNATIONAL BUSINESS MANAGEMENT. The problems and policies of international business enterprise at the management level. Cases in comparative management are utilized. Includes strategies of the firm in international business, structure of the firm in international business, the international environment, restraints on international competition, multinational enterprises, and national institutions. (3 crs.)

MARKETING COURSES - MKT

MKT 501. INTERNATIONAL BUSINESS MARKETING. Upon completion of the course, the student will be able to evaluate and make recommendations and decisions concerning the strategy and tactics of real-life targeting and marketing mix development for both global and country-specific markets. The course will also cover selected elements of international marketing research. (3 crs.)

MKT 711. MARKETING MANAGEMENT. Description and analysis of the nature, strategies, and techniques in marketing management. Includes buyer behavior and segmentation, product development and policy, product pricing, advertising and sales promotion, sales management, strategic marketing, marketing programming, and marketing and society. (3 crs.)

MKT 721. RESEARCH METHODS IN MARKETING. Examines the process of acquiring, classifying and interpreting primary and secondary marketing data required for intelligent marketing decisions. (3 crs.)

MKT 731. MARKETING FOR NON-PROFIT ORGANIZA-TIONS. A marketing course designed for MBA students that differentiates between for-profit and not-for-profit organizations, investigates the competitive environment facing non-profits (e.g., hospitals, churches, charities, colleges, and performing arts groups) and applies research techniques and marketing/management tools (product policy, distribution and delivery systems, monetary pricing, and communication strategies) to the non-business entity. (3 crs.)

MKT 751. ADVERTISING MANAGEMENT. A detailed analysis of the components of the advertising mix, reviewing the components in order to determine selection techniques for appropriate media vehicles for various business advertising demands. The graduate student will analyze and develop a media presentation as a member of an advertising team which will be presented at the end of the term. This process includes basic research, campaign development and media selection. (3 crs.)

MKT 761. BUSINESS MARKETING STRATEGY. This course focuses on the expanded contemporary marketing strategies that are essential for businesses to survive in today's competitive global marketplace. Emphasis will be placed on case studies, group presentations, and class interaction to equip the graduate student with a level of understanding to effectively function with a greater comprehension of business marketing while serving in business management. Prerequisite: MKT 301 (3 crs.)

MULTIMEDIA TECHNOLOGY - MMT

MMT 701. MULTIMEDIA TECHNOLOGY. Introduces the student to the components and terminology of multimedia technology as a basis for subsequent courses. Through research and computer activities, the student will experience the role of graphical user interfaces and various computer peripherals used to support multimedia on industry standard platforms. CD-ROMs, sound and

video digitizing and playback, digital cameras, scanners, LCD and projection panels, graphic file formats, animation and digital video, computer networks and the Internet, hypertext markup language and distance learning are investigated. (3 crs.)

MMT 702. MULTIMEDIA SYSTEMS. Focuses on the application of graphic design and the integration of multimedia components. The organization of visual elements such as type, color, texture, contrast, perspective, balance and unity will play an important part in the development of both interactive and non-interactive presentations. Emphasis will be placed on the process of blending the components using various hardware platforms and software tools. For a project, the student will create and master a CD-ROM based multimedia presentation as the basis of a personal digital portfolio. (3 crs.)

MMT 703. DIGITAL EDITING. Presents techniques of achieving strong components in: audio, imaging and video, generation/ acquisition, enhancement, storage and retrieval of these components in the digital realm are major topics. Through a series of laboratory and collaborative site activities, the student will gain experience using hardware and software tools to achieve effective digital editing of audio/video clips and images. (3 crs.)

MMT 704. WEB PUBLISHING. The course delves into the intricacies of publishing on the web and what makes a proficient webmaster by examining areas such as client-server computing network operation, intranents and the Internet, advanced HTML and server-based support. End-user interaction using web page elements such as animations, sounds an videos emphasized. Java/ JavaScript, Active-X and Afterburner are highlighted. A collaborative site will be used as a real world examination of its mode of operation, performance and maintenance of that published web site. (3 crs.)

MMT 705. INTERACTIVE DESIGN. Besides having relevant and organized content, an effective presentation must engage its audience. Such presentations include storybooks, simulations, tutorials, demos and kiosks. Techniques employing multimedia driven scripting and object-oriented tools to achieve user interaction are centric to his course. This course and corresponding laboratory activities will assist the student in applying multimedia tools to their field of study. (3 crs.)

MATHEMATICS - GMA

GMA 701. REAL VARIABLE ANALYSIS I. The course begins with elementary set theory, relations, functions and cardinality. Continues with the natural numbers, the completeness axium of the reals, topology of the reals and compactness with an introductions into metric spaces. A rigorous development of sequences in the reals follows including Cauchy sequences and subsequences followed by theorems relative to continuous functions, uniform continuity and continuity in metric spaces. These properties of a real variable are the beginning essential tools of mathematical analysis. Prerequisite: A strong background in Calculus. (3 crs.)

GMA 702. REAL VARIABLE ANALYSIS II. A continuation of GMA 701 studying the properties of real variables which are the essential tools of mathematical analysis with a rigorous development of the theory of differentiation, integration, and infinite series. Sequences and series of functions are covered from the point wise and uniform convergence aspects. Prerequisite: GMA 701. (3 crs.)

GMA 716. DIFFERENTIAL EQUATIONS. An in-depth and thorough study of ordinary differential equations with emphasis on applications and some proofs. Topics includes first order differential equations, second order linear equations, higher order linear equations, numerical methods and Laplace transform. (3 crs.)

GMA 725. THEORY OF NUMBERS. A theory of those classical results most related to the teaching of mathematics: integers, unique factorizations, Diophantine equations, congruences, Fermat's and Wilson's theorems, divisibility, perfect numbers, Euler's Theorem and function, decimals, Pythagorean triangles, infinite descent and Fermat's conjecture, magic squares, calendar problems. (3 crs.)

GMA 741. LINEAR ALGEBRA. This course furthers the graduate student's competency in linear algebra to topics above the level encountered in the undergraduate curriculum. Topics are chosen from among eigenvalues and eigenvectors, diagonalization, Shur's theorem, the Cayley-Hamilton theorem, Jordan canonical form, quadratic forms, linear programming, graph theory, and game theory. Prerequisite: An undergraduate course in linear algebra or permission of the instructor. (3 crs.)

GMA 743. PROJECTIVE GEOMETRY. A modern introduction to n-spaces, emphasizing the interrelationships between projective geometry, finite-dimensional linear algebra, and algebraic structures. Prerequisite: an undergraduate course in linear algebra. (3 crs.)

GMA 751. ABSTRACT ALGEBRA. The basic algebraic systems that comprise modern abstract algebra, to the level of competency where proofs can be recognized and invented. Algebraic systems investigated usually include groups, rings, integral domains, and fields. Prerequisite: an undergraduate course in abstract algebra or the permission of the instructor. (3 crs.)

GMA 755. TOPOLOGY. Preliminaries (sets, relations, cardinality, etc.), topologies, separation axioms, coverings, compactness, connectedness, continuity, homomorphism, convergence, metric spaces. Prerequisite: A strong background in Calculus. (3 crs.)

GMA 761. MATHEMATICAL STATISTICS I. The basic concepts of both discrete and continuous probability theory. Random variables are studied that occur frequently in probability applications and statistical inference. Sampling distributions are emphasized and developed, using moment generating function techniques. At the end of the course the graduate student will know about many of the important probability and distribution theory results that form the basis for commonly used statistical inference procedures. Upon completion the graduate student will be prepared to take the following course: GMA 672. Prerequisite: Undergraduate calculus sequence and linear algebra. (3 crs.)

GMA 762. MATHEMATICAL STATISTICS II. The fundamental concepts and methods of mathematical statistical inference. The graduate student will learn about both classical and modern statistical techniques and the areas of estimation theory, tests of hypothesis, regression, and distribution free methods. Topics such as maximum likelihood methods, Nexman-Pearson Lemma, likelihood ratio tests, and unbiased minimum variance estimators are covered. Prerequisite: GMA 671 Mathematical Statistics I or an equivalent course. (3 crs.)

GMA 785. HISTORY OF MATHEMATICS. An historical summary of the development of mathematics, with emphasis on the relation

of the development of mathematics to the development of Western culture. The lives and discoveries of many mathematicians are discussed, and methods of incorporating the history of mathematics into school mathematics courses are considered. (2 crs.)

GMA 786. COMPUTER SCIENCE FOR TEACHERS. This course is for the secondary-school mathematics teacher who is interested in an introduction to the elementary concepts of computer programming, the early history and development of computers, and the uses of the computer in the school and society. Emphasis is placed on writing computer programs related to topics in secondary school mathematics. (2 crs.)

POLITICAL SCIENCE - POS

POS 700. PUBLIC POLICY. A study of the concepts, frameworks, models and methods of policy making and analysis (American with international comparisons) at the national (and state and local government) level. Graduate students learn to structure policy problems, analyze the assumptions of stake-holders and policy makers and evaluate the impact of public policies. (3 crs.)

POS 704. AMERICAN POLITICAL IDEAS. An advanced political theory; the major political ideas and controversies that are associated with the development of American political thought. (3 crs.)

POS 705. HISTORY OF POLITICAL THEORY. A study of early and modern political theories, their development and application as controlling factors in the growth of western civilization and American democracy. (3 crs.)

POS 711. POLITICS OF LATIN AMERICA. A comparative analysis of institutions, processes, and politics of Latin American countries and how these have been shaped by the international relations of the region. (3 crs.)

POS 728. POLITICS OF UNDERDEVELOPED NATIONS. A comparative study of emerging political systems and their attempts to achieve modernity. (3 crs.)

POS 740. AMERICAN DEFENSE POLICY. An analysis of the forces influencing decision-making in the quest for American national security. (3 crs.)

POS 745. THE LEGISLATIVE PROCESS. An analysis of policy determination in the American legislative system. (3 crs.)

POS 746. AMERICAN CHIEF EXECUTIVES. The role of the presidency in policy determination in both domestic and foreign affairs. (3 crs.)

POS 747. CIVIL LIBERTIES AND JUDICIAL PROCESS. The Supreme Court as the principal guardian of libertarian principles. (3 crs.)

POS 779. INDEPENDENT STUDIES IN POLITICAL SCIENCE. The graduate student has this opportunity to do independent study or research in political science, under the direction of a member of the political science faculty. The nature of the research study and the assigned credit hours are determined individually. (variable credits)

PROFESSIONAL EDUCATION - EDP

EDP 600. STATISTICAL METHODS. Intended to increase graduate students' knowledge of statistics and especially prepare

them to work on a Master's Thesis or Research Project. Develops an understanding of the application and meaning of descriptive statistics as they apply to educational problems. (2 crs.)

EDP 605. PHILOSOPHY OF EDUCATION. An introduction to the discipline of philosophy and the significant contribution that this discipline makes to education. Major schools of traditional and contemporary philosophy are examined, with particular emphasis on the influence these philosophies have had on educational theory and practice over the years. (2 crs.)

EDP 606. GENERAL HISTORY OF EDUCATION. The course is designed to develop an historical awareness, appreciation, and understanding of the people and of the major cultural and educational events that have shaped education in Western culture. The significance and relevance of these people and events for contemporary American culture are stressed. (2 crs.)

EDP 608. COMPARATIVE EDUCATION. This course centers on the province of Quebec. Students are introduced to basic rules of educational comparison followed by readings aimed at investigating the traditions, social organization, and political and economic conditions that have determined the development of Quebec. Source reading is brought into special perspective by a one-week program of school visitations in Quebec where students can observe classes and interview educational personnel. (3 crs.)

EDP 610. EDUCATIONAL SOCIOLOGY. The role of the school in child socialization, intergroup education, the integration of school and community, group processes and the teacher, teacher problems in human relations, and educating for leadership. (2 crs.)

EDP 611. HISTORY OF AMERICAN EDUCATION. The course is designed to develop an historical awareness, understanding, and appreciation of major cultural and educational events and of individuals that have shaped American education from 1620 to the present. The significance and relevance of these events and individuals for contemporary American education are stressed. (2crs.)

EDP 615. TEACHER AWARENESS. A practical approach to the solution of daily problems arising from action and interaction with students, other faculty members, administrators, school board members, parents, and the community. The course is experience-oriented and focuses on student rights, duties and responsibilities and the legal rights of teachers; evaluations; classroom procedures; and lesson planning. (3 crs.)

EDP 619. STUDENT TEACHING SUPERVISION. For teachers who are acting as cooperating teachers and for those interested in serving in this capacity in the future. A prerequisite for admission to this workshop is three years' teaching experience. The course provides an opportunity to strengthen, clarify, re-think, and revitalize one's approach to student-teaching supervision. (Variable crs.)

EDP 620. CURRICULUM AND METHODS OF TEACHING BIOLOGY IN THE HIGH SCHOOL. The BSCS courses of study and how and why they were developed, along with a critical analysis of each of the three versions in light of various school backgrounds. Laboratory projects will be pursued that can serve as source material in a teacher's classroom. Two hours of lecture and two hours of laboratory. Prerequisite: Certification to teach biology. (2 crs.)

EDP 624. CHARACTER EDUCATION. This course will examine how schools contribute to the moral development of children. Specifically, students will be introduced to the approaches to character education that have been used in the nation's schools. Particular attention will be paid to developing a comprehensive approach to moral development that integrates earlier strategies. This integrative approach holds that character education must be a way of life for a school, not just a program. That is, all aspects of a school's life contribute to moral development. (3 crs.)

EDP 656. COMPUTER ORIENTED RESEARCH. This course is intended to provide students with an opportunity to explore issues in the present and future uses of the computer in education and educational research. (2 crs.)

EDP 663. COMPUTER-ASSISTED INSTRUCTION. The development of computer applications in education provides a significant new resource in teacher education. This course is designed to include both theory and practice. This course serves to acquaint the learners with computers and their uses as instructional tools. Laboratory assignments are designed to provide generalizable and transferable competencies. No previous computer related knowledge is assumed. (3 crs.)

EDP 685. SEMINAR IN AUDIO-VISUAL TECHNIQUES. This course is designed to bring together the recent research on teacher behavior with the theories and research of social psychology and group dynamics. It aims to give the student some understanding of group processes and some personal experience helpful in developing a repertoire of ideas and behaviors that will be pertinent in supervision and in the classroom. (2 crs.)

PSYCHOLOGY - PSY

PSY 701. PERSONALITY THEORY. A course designed to provide the student with an understanding of the development of personality from various theoretical points of view. The course draws comparisons between various theories. The role of personality as it affects the behavior of children, adolescents, and adults is explored. This is a fundamental course in psychology that may become the basis for further development of the student in applied courses and may assist the student to perform the function of a consultant. (2 crs.)

PSY 702. PSYCHOPATHOLOGY OF CHILDHOOD. This course is designed to provide a comprehensive understanding of disorders of childhood and their behavioral manifestations. Various concepts of normality and abnormality are used to demonstrate the approaches available for assessing behavioral disorders. Attention is given to understanding and identifying a variety of emotional, learning, and social problems in children. The student becomes acquainted with the implications of such disorders for the school and for methods of remediation and treatment. Emphasis is on etiology, diagnosis and approaches to treatment or intervention in the schools. Field experiences in settings dealing with exceptional children are required. (3 crs.)

PSY 711. ADVANCED EDUCATIONAL PSYCHOLOGY. Current issues and recent evidence in the areas of educational psychology including growth, personality, heredity and environment, intelligence, learning, transfer of learning, emotion, motivation, and teaching methods. (3 crs.)

PSY 712. ADVANCED PSYCHOLOGY OF LEARNING. A treatment of selected, well-known theories, related to the learning

process, derived from rational and empirical sources, with the object of showing the relationships to teaching and clarifying the developmental processes in conceptual and perceptual areas. (3 crs.)

PSY 713. PSYCHOLOGY OF GROWTH AND DEVELOPMENT. How people grow and develop from infancy to old age. Maturation, learning, and their interrelationships are studied. Physical growth patterns are noted, along with emotions, intellectual and social development, with implication for the school, community, and home. (3 crs.)

PSY 721. ADVANCED TESTS AND MEASUREMENTS. This course is designed to provide the student with an understanding of the use of tests for diagnostic studies of all types of clients. It explores the way in which tests are constructed, the questions of validity, reliability, objectivity, standardized conditions, test administration, requirements, normative data, and the ethical uses of tests. The course provides a survey of some representative tests of achievement, aptitude, intelligence, and interests. Students also receive practice in administering, scoring and interpreting such tests through a practicum involving an evaluation of themselves and at least one client. (3 crs.)

PSY 722. INDIVIDUAL PSYCHOLOGICAL EVALUATION I WITH PRACTICUM. Emphasizes theory and competence in the administration, scoring, and interpretation of the Stanford-Binet Intelligence Scale-IV, and the . Practical experiences in the administration and interpretation of the test and the use of Bender Visual Motor Gestalt Test., with school-aged children are provided. Extensive supervised practice in administration, scoring, and interpretation utilizes subjects aged 2 to adult. Theory and experience with other infant and child measures of intelligence such as the Cattell, Bayley II, and the K-ABC are included. Psychological report writing is stressed. Prerequisite: PSY 721. (3 crs.)

PSY 723. INDIVIDUAL PSYCHOLOGICAL EVALUATION II WITH PRACTICUM. Emphasizes theory This course emphasizes the theoretical underpinnings of intellectual assessment and the development of and competence in the administration, scoring, and interpretation of the Wechsler Scales: WISC-III, WPPSI-R, and WAIS-III R. Attention is directed to toward the use of these scales to measure in measuring intellectual levels, and in identifying cognitive strengths and weaknesses. identify and describe learning/adjustment/developmental problems. Practical experiences are required and the student must demonstrate involving testing with these scales and demonstration of competency in the administration, scoring, and interpretation of each scale. Psychological report writing is also stressed. Prerequisite: PSY 721. (3 crs.)

PSY 728. PRACTICUM IN SCHOOL PSYCHOLOGY. A practicum in psychoeducational assessment in which students work with clients through the School Psychology Clinic. Students develop competence in the administration, scoring, and interpretation of individually administered assessment tools, with an emphasis on diagnostic testing and comprehensive report writing. Under faculty supervision, students conduct comprehensive evaluations of clients, including gathering background information, test administration, report writing and consultation with clients. Prerequisites: PSY 721, PSY 722& PSY 723. (3 crs.)

PSY 734. ASSESSMENT OF PERSONALITY AND BEHAVIOR I. An introduction to the theory of projective techniques in the study of personality, motivation, abnormality, and dynamics of behavior.

Experience is given in the administration, scoring, and interpretation of some of the more widely used projective tests, such as the Bender, Human Figure Drawing, Sentence Completion, H-T-P, T.A.T. and C.A.T. Behavior rating scales and self report personality inventories are also included. Students receive extensive supervised practice in administration, scoring and interpretation utilizing subjects aged four to adult. experience in interpreting protocols they obtain from subjects aged four to adult. Particular attention is given to the use of such tests in understanding psychological disorders and planning for remediation or treatment. Practical experiences maywill be gained by testing clients of various ages in the School Psychology Clinic. Prerequisites: PSY 702, PSY 721, PSY 722, & PSY 723. (3 crs.)

PSY 735. ASSESSMENT OF PERSONALITY AND BEHAVIOR II. A course on the theoretical rationale, administration, scoring, and interpretation of the Rorschach technique as a method of personality assessment. Extensive supervised experience is provided in the scoring and interpretation of protocols. Prerequisites: PSY 721, PSY 722, PSY 723, & PSY 734. (3 crs.)

PSY 741. THEORIES OF COUNSELING AND PSYCHO-THERAPY. This course is designed to introduce students to the most common therapeutic approaches in use today. Lectures, classroom demonstrations, tapes and role playing are utilized to illustrate these various orientations. Student participation is required. A research paper comparing and contrasting theories is required. A position paper stating the student's own orientation is required. (3 crs.)

PSY 742. TECHNIQUES OF COUNSELING AND PSYCHO-THERAPY WITH PRACTICUM. This course is intended to provide both a didactic and an actual experience in counseling. Students familiarize themselves with the phases, procedures, and goals of counseling and therapy through assigned readings, tapes, and group discussion of case presentations. Students are simultaneously required to assume responsibility for a minimum of two cases in an approved setting. Students are generally assigned a caseload of six clients involving volunteers and actual cases as they become available. Those students currently working in a school district may select cases from that setting. Cases are to be approved by the instructor. Supervision of all cases is provided both in group sessions and on an individual basis. Students are seen outside of regularly scheduled group meetings for individual supervision during the week, when necessary. Prerequisite: PSY 741. (3 crs.)

PSY 746. PSYCHOLOGY OF LEARNING DISABILITIES. This course is designed to acquaint the student with an understanding of the common types of learning disabilities. The course explores causes and effects of various learning disabilities in terms of brainbehavior relationships. The course introduces the student to methods of dealing with children with learning disabilities and the development of remedial strategies. Assessment of learning difficulties is also included in the course. The course is directed toward the role of the school psychologist in the identification and the placement educational treatment of the learning-disabled child. (3 crs.)

PSY 752. FUNDAMENTALS OF SCHOOL PSYCHOLOGY. This course is an introduction to the profession of School Psychology. The issues discussed revolve around the roles and functions of school psychologists. Topics include school systems, personnel and policies, the law and school psychology, and professional ethics. Field experiences are required. (3 crs.)

PSY 756. CONSULTATION AND GROUP PROCESSES, WITH PRACTICUM. A variety of group methods and consultation techniques utilized by the school psychologist are introduced. This is accomplished by assigned readings, group discussions, and case presentations. Students will tape group sessions and present these to the class. Students will explore and utilize a variety of consultation techniques in problem situations. (3 crs.)

PSY 766. PSYCHOLOGICAL STATISTICS. This course teaches the student the fundamentals of statistical design of experiments, statistical analysis of results of experiments, and the use of statistics as a model in understanding the types of inference to be drawn from published literature. The power and the limitations of various statistical methods are explored. (3 crs.)

PSY 767. RESEARCH METHODS IN PSYCHOLOGY. This course is designed to assist the student to understand how to design, implement, and analyze the results of research. Consideration is given to the use of published literature as a source of ideas about research problems, and the student is assisted in the development of such problems into an appropriate proposal for research study. The course assists the student in conducting research and provides a resource for the interpretation of existing research in the literature. (3 crs.)

PSY 773. INTERNSHIP IN SCHOOL PSYCHOLOGY. The internship experience requires a minimum of 1200 hours under direct supervision of a qualified psychologist. A minimum of 800 hours must be completed in a realistic educational setting (i.e., public school system). The remaining 400 hours may be in a related setting (i.e., clinic, hospital, etc.). The intern is expected to demonstrate all of the competencies of the practicing school psychologist. (12 crs.)

PSY 774. INTERNSHIP IN SCHOOL PSYCHOLOGY: CLINICAL. This course is unique in its offering the student the opportunity to complete a portion of the internship in the School Psychology Clinic, or other alternative setting, such as mental health facility, hospital, or residential treatment center. This course parallels the School Psychology Internship, but is unique in its ability to offer experiences with clients in settings other than the schools. In this setting, the intern will have in-depth, hands on experiences working more directly with clients including children and parents than the school setting affords. The intern will develop, integrate, synthesize, and apply acquired knowledge, skills and professional competencies in school psychology to such alternative settings, working with clients of varying ages and varying presenting referral questions. Prerequisites: Required courses in certification program. (1-4 crs.)

PSY 795. SEMINAR IN BEHAVIOR MODIFICATION WITH PRACTICUM. This course seeks to establish a basic repertoire of skills necessary for the successful formulation, design, implementation, and evaluation of behavioral change procedures derived from operant conditioning principles applicable in the public school setting. This course provides the student with the knowledge and skills needed to design, implement, and evaluate a behavioral change intervention. Students prepare a formal research proposal describing a behavioral change project, revise the proposal in consultation with the instructor, and then implement it. At the conclusion of the project, the student submits a formal research report project. (3 crs.)

PSY 796. SEMINAR IN THE ANALYSIS OF RESEARCH IN SCHOOL PSYCHOLOGY. This course consists of an examination of current research in School Psychology. Critical study and evaluation of research findings applicable to the school-age child and classroom learning situations are undertaken. The student locates, analyzes, summarizes, critiques and orally presents findings of relevant current published research. A major component of this course is the development, by each student, of either a written research proposal or a paper summarizing research in an area relevant to school psychology. Prerequisites: EDP 600, RES 800. Sa written proposal for an original research study. (3 crs.)

PSY 798. INTERNSHIP SEMINAR. This course, in conjunction with the internship, is intended to assist the student to understand the role of the school psychologist and to deal with the problems that arise during the internship experience. In addition, the student receives a review of such topics as the history and trends in the growth of school psychology, the preparation and training of the school psychologist; the Right to Education and Due Process Law; the psychological and educational assessment of children; the professional responsibilities, ethics and professional affiliations of school psychologists and the community resources available to children. Field trips and first-hand observations are stressed. (4 crs.)

PSY 849. MASTER'S THESIS. The student conducts an independent, scientific research study in a classroom or other structured educational setting. The thesis is presented as a written document that conforms to American Psychological Association style. (4 crs.)

RESEARCH - RES

RES 819. RESEARCH PAPER. (1 cr.)

RES 829. RESEARCH PROJECT. A study or presentation on some topic in Special Education. The Research Project is more in depth than a Research Paper but less thorough than a Master's Thesis. Approval of only the graduate student's advisor is needed. The Publication Manual of the American Psychological Association is to be used. (2 crs.)

RES 849. MASTER'S THESIS. The thesis will usually be inferential in nature and involve some intervention and manipulation of some independent variables, employing a statistical analysis or experimental design. The Publication Manual of the American Psychological Association is to be used. The thesis requires a committee with at least one professor from outside the Special Education Department. (4 crs.)

READING SPECIALIST - RSP

RSP 700. FOUNDATIONS OF LITERACY THEORY AND INSTRUCTION. The acquisition of multiple literacy strategies, discussion and presentation of these strategies, and research implications to match theory with practice are the foci of this course. Additionally, because of the need for technological literacy, the use of technology is also required. The goal of this course is to prepare students for the role of the reading specialist in the inclusion model. (3 crs.)

RSP 702. DIAGNOSIS AND TREATMENT OF READING PROBLEMS. The purpose of the course is to provide graduate students with the skills needed for diagnosing and remediating reading difficulties of students in grades K-12, within a transactional, constructivist framework. Factors related to reading

disability and principles of student-centered, and process-oriented forms of assessment will be taught. Prerequisite: RSP 700. (3 crs.)

RSP 703. PRACTICUM: DIAGNOSTIC CASE STUDIES. The purpose of this course is to provide practical experience with determining, in a holistic manner, a childls reading needs, and making suggestions for individualized instruction for those needs in a case study format. Prerequisite: RSP 700 & RSP 702. (3 crs.)

RSP 704. PRACTICUM: REMEDIAL CASE STUDIES. This course must be taken the semester immediately following the completion of RSP 703. The student applies knowledge of materials and methods gained in prerequisite classes to plan and implement a program of instructional intervention for a remedial reader. The course contains a seminar component in which the student utilizes modeling and communication skills to discuss and demonstrate plans for reading instruction with other students as well as with the practicing teacher. Prerequisites: RSP 700, RSP 702 & RSP 703. (3 crs.)

RSP 705. PSYCHOLOGY OF READING. This course is designed to provide students with knowledge of reading theory as it relates to the psychology of learning. Prerequisites: RSP 700 (3 crs.)

RSP 706. ADULT LITERACY. This course will expose the students to the point of view that the adult learner is a complex individual and has diverse needs, most of which have some bearing on any reading difficulties. Theories of the causes of adult illiteracy will be presented and diagnostic and remedial techniques will be given. Prerequisites: RSP 700 & RSP 702. (3 crs.)

RSP 731. SUPERVISION AND ADMINISTRATION OF A READING PROGRAM. This course emphasizes the investigation of the challenges of implementing a district-wide reading program, through the use of research, individual projects, conferences and interviews with various reading staff members and school administrators, and the evaluation of reading programs and materials. Emphasis is placed on the implementation of change in a reading program, reflecting new roles of the reading specialist and reading supervisor. (2 crs.)

RSP 732. READING CURRICULUM AND INSTRUCTIONAL MATERIALS. This course focuses on the introduction, selection and evaluation of the reading curriculum and instructional materials in grades K-12. The developmental sequence of materials throughout the curriculum, the implementation of those materials, and their possible strengths and weaknesses are explored. (2 crs.)

RSP 733. READING INTERNSHIP. The student is provided with a supervision practicum in clinical and school experiences in a reading program. (4 crs.)

RSP 734. CONTENT AREA READING IN MIDDLE AND SECONDARY SCHOOL. This course is designed to investigate the problems inherent to reading to learn in the content areas at the secondary level. Theory-based, practical strategies for content area reading instruction are studied. To help students construct meaning the strategies examined range from developing frames of reference during prereading, to constructing and using reading guides and vocabulary activities. The process of writing to learn and studying along with relevant, meaning based strategies are also explored. Professional growth and improved reading instruction through planned and informal staff development programs are discussed. (3 crs.)

RSP 739. FIELD EXPERIENCES IN READING. The course is designed for students to do an independent study in an area pertinent to each individuall's needs and interests. Projects will be completed in an area mutually agreed upon by the student and the professor. (1-3 crs.)

READING SUPERVISOR - RSU

RSU 680. IMPROVEMENT OF INSTRUCTION THROUGH SUPERVISION. This seminar is intended to prepare participants for performing the supervisory function in schools. The purpose is to increase competency in a practical sense by finding ways to help reading specialists and teachers ask questions about their present and future methods of instruction. In structure, the seminar deals with theory, research, practice, and evolving concepts that have realistic implications for supervision in the school environment. (2 crs.)

SUPERINTENDENTS LETTER OF ELIGIBILITY - SLE SLE 701. ADMINISTRATION THEORY, ORGANIZATION AND OPERATION. This course offers the participant opportunities to gain competencies in and and understanding of the applications of administrative theory. Through inquiry into the subject of administrative theory, candidates will gain critical and creative attitudes toward humanistic and scientific principles of public school organization and administration. Along with required course activities, each participant will be to complete a field experience involving leadership or organizational theory and practice. (3 crs.)

SLE 702. CONTRACT LAW: SCHOOL DISTRICT LEGAL ISSUES. This course is designed to familiarize aspiring superintendents with the legal bases for the administration of public schools. Federal and state constitutional provisions and statutes, along with administrative regulations, contract law, local school board policies and case law research necessary in decision-making process. Course activities will include lectures, class discussions, student research, oral and written reports, examinations and a related field episode. (3 crs.)

SLE 703. SCHOOL FINANCE. The purpose of this course is to familiarize the future school district superintendent with the political and legal aspects of school finance. Students will analyze local, state and federal revenue and expenditure plans as they relate to the school district educational plan. Course includes a field episode individually designed for study and experience in school finance. (3 crs.)

SLE 704. TECHNOLOGY AND FACILITIES DEVELOPMENT. This course will offer the participant an opportunity to learn and demonstrate competencies in planning, developing and managing technology and facilities in Pennsylvania school districts. Through classroom activities and on-site visitations, the participant will deal with challenges which are faced by school superintendents. (3 crs.)

SLE 705. CURRICULUM AND INSTRUCTION, LEADERSHIP/ SUPERVISION. This course is designed so that future superintendents will learn a varity of strategies that may be used in his/her leadership role in curriculum and instruction in small and large school districts as he/she works with the board of education, staff, parents, students and other community members. (3 crs.)

SLE 706. SCHOOL COMMUNITY PUBLIC RELATIONS/ MARKETING. This course is designed to familiarize the future school district superintendent with effective communications strategies for positive school public relations and marketing techniques. (3 crs.)

SLE 707. STRATEGIC PLANNING, POLICY ANALYSIS, BOARD RELATIONS. Major concepts and ideas of strategic leadership through strategic planning, policy making, school board relations, and interpersonal relations will be explored in this course through traditional and experimental methods. (3 crs.)

SLE 711. UNIVERSITY SEMINAR: ADMINISTRATION THEORY, ORGANIZATION AND OPERATION. This seminar is designed to expand and enhance course objectives covered in Administration Theory, Organization and Operation (SLE 701) through general University Seminar activities. (1 cr.)

SLE 712. UNIVERSITY SEMINAR: CONTRACT LAW, SCHOOL DISTRICTS LEGAL ISSUES. This seminar is designed to expand and enhance course activities covered in Contract Law: School District Legal Issues (SLE 702) through general University Seminar activities. (1 cr.)

SLE 713. UNIVERSITY SEMINAR: SCHOOL FINANCE. This seminar is designed to expand and enhance course activities covered in School Finance (SLE 703) through general University Seminar activities. (1 cr.)

SLE 714. UNIVERSITY SEMINAR: TECHNOLOGY AND FACILITIES DEVELOPMENT. This seminar is designed to expand and enhance course activities covered in Technology and Facilities Development (SLE 704) through general University Seminar activities. (1 cr.)

SLE 715. UNIVERSITY SEMINAR: CURRICULUM AND INSTRUCTION, LEADERSHIP/SUPERVISION. This seminar is designed to expand and enhance course activities covered in Curriculum and Instruction, Leadership/Supervision (SLE 705) through general University Seminar activities. (1 cr.)

SLE 716. UNIVERSITY SEMINAR: SCHOOL COMMUNITY PUBLIC RELATIONS/MARKETING. This seminar is designed to expand and enhance course activities covered in School Community Public Relations/Marketing (SLE 706) through general University Seminar activities. (1 cr.)

SLE 717. UNIVERSITY SEMINAR: STRATEGIC PLANNING, POLICY ANAYLSIS, BOARD RELATIONS. This seminar is designed to expand and enhance course activities covered in Strategic Planning, Policy Analysis, Board Relations (SLE 707) through general University Seminar activities. (1 cr.)

SOCIAL SCIENCES - SOS

SOS 716. ECONOMIC, SOCIAL, AND POLITICAL ORDER. Analysis of the diverse social institutions that guide and shape the economic process, with special emphasis on the major types of systems that allow economic challenges to be confronted and solved. Several of the more recent rapid growth economies are used as models. (3 crs.)

SOS 717. ANALYSIS OF POWER STRUCTURE. An appraisal of the nature, composition, structure, and function of groups along with sociological theory concerning group functioning, with particular emphasis on decision-making at various levels of government, labor, military and business. (3 crs.)

SOS 800. SEMINAR IN SOCIAL SCIENCE RESEARCH TECHNIQUES. The techniques involved in both research and writing on the social sciences, including the selection of a topic, acquaintance with research materials, organization of materials, and monograph writing. An overview of contemporary social science is also undertaken. (3 crs.)

SOCIAL WORK - SWK

SWK 701. GENERALIST PRACTICE I. Foundation framework for generalists social work practice including the problem solving process, social work values/ethics, and social work roles as they apply to varying size client systems. Develops specific intervention skills, such as interviewing, assessment, contracting/goal setting and evalution for diverse client systems with emphasis on rural settings. Prerequisites: Program admission. (3 crs.)

SWK 702. GENERALIST PRACTICE II. Builds on generalist practice foundation and focuses on the community/rural community context of practice. Explore advocacy, crisis intervention and management. Overview of practice areas such as aging, mental health, disability, substance abuse, criminal justice, etc. Prerequisites: SWK 701. (3 crs.)

SWK 705. HUMAN BEHAVIOR AND THE SOCIAL ENVIRON-MENT. Foundation for working with individuals, families; groups and community resources. Basic concepts of human development throughout the life cycle are presented within the person-inenvironment perspective. The framework is multidimensional considering the impacts of class, race, ethnicity, gender, sexual preference and the social environment on human behavior and development. Viewed in relation to practice with varying size client systems. Prerequisites: Program admission. (3 crs.)

SWK 707. HUMAN DIVERSITY. Foundation knowledge for analyzing and understanding the dynamics involved with prejudice and discrimination, and resulting racism, sexism, homophobia and ageism at the micro and macro levels. Explores cultural and regional differences and forms of oppression impacting on social work practice. Prerequisites: Program admission. (3 crs.)

SWK 709. SOCIAL WELFARE POLICY AND SERVICES. Examination of the history and value base of social policy in America, with frameworks for policy analysis. Special emphasis on the impact of these policies, and related services, on rural areas. Prerequisites: Program admission. (3 crs.)

SWK 710. POLICY PROCESS AND PROGRAM DESIGN. Examination of the process from legislation/policy adoption to actual program development. Focus on how the process, including budgeting, results in service delivery systems. Skills developed in policy analysis for developing and changing programs. Examples focus on the rural experience. Prerequisites: SWK 709 or Advanced Standing. (3 crs.)

SWK 713. SOCIAL WORK RESEARCH METHODOLOGY. Examines the logic of scientific inquiry, the social research process, application of research to social work practice, problem conceptualization, measurement options, research design and beginning level analysis of data. Prerequisites: Program admission. (3 crs.)

SWK 714. QUANTITATIVE RESEARCH METHODS. Use of descriptive and inferential statistics in analyzing research data.

Understanding quantitative and qualitative methodologies. Development of skills for understanding and conducting social research. Prerequisites: SWK 713 or Advance Standing. (3 crs.)

SWK 730. FIRST YEAR PRACTICUM. Two hundred forty hour placement in a supervised social agency setting that provides opportunities for generalist social work practice and advocacy with and for varying size client systems. Prerequisites: SWK 701 & SWK 705. (6 crs.)

SWK 801. ADVANCED GENERALIST PRACTICE. Use of individual, group and organizational skills within the community agency setting. Practice concerns, certification, supervision, and making referrals. Working with individuals and groups to meet community needs. Prerequisites: SWK 702 & SWK 705 or Advanced Standing. (3 crs.)

SWK 803. ASSESSMENT OF DIFFERENTIAL CLIENT FUNCTIONING. Examination of human differences and community systems and their relationship to client functioning. Understanding psychosocial aspects, within a framework of levels of functioning, as it relates to community resource systems, particularly in the rural environment. Person-in-environment perspective, including personal, family, cultural and regional influences on client functioning. Prerequisites: SWK 705 & SWK 707 or Advanced Standing. (3 crs.)

SWK 806. RURAL FAMILY AND COMMUNITY POLICY. Explores the design, function and impact of community and family policies. Historical development of specific policies and the effects of the policy on family and community institutions and organizations. Skills in analyzing and synthesizing policy are applied to rural situations and change strategies. Prerequisites: SWK 705, SWK 709 & SWK 713 or advanced standing, SWK 710. (3 crs.)

SWK 808. ADVANCED PRACTICE RESEARCH. Use of research to evaluate practice and programs, includes single system design and program evaluation. Skills developed for assessing and adding to the knowledge of social work practice. Prerequisites: SWK 714. (3 crs.)

SWK 811. PRACTICE WITH AGING. Integration of knowledge about aging, rural aging, services for the aging and the principles of social work practice. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 812. PRACTICE IN SUPERVISION AND ADMINISTRATION. Supervision, management and control in human services organizations. Theoretical and functional models to assist staff to grow and function competently as professionals. Understanding the elements of programming, budgeting, staffing, communication and control within the organization. Identifying formal and informal systems, the impacts of human diversity, and how all of this functions in rural settings. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 813. HEALTH CARE PRACTICE. Overview of health care delivery systems, social work strategies for working from within or outside these systems to assist clients and their families with physical or emotional problems. Traditional and non-traditional rural settings are examined. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 814. PRACTICE IN MH/MR. Overview of MH/MR policies and services; issues of rehabilitation, advocacy and case management; treatment approaches: crisis, behavioral, chemical, are related to social work roles and values in the context of rural community needs. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 815. CRIMINAL AND JUVENILE JUSTICE PRACTICE. Overview of the juvenile and adult justice systems; the day-to-day philosophy of these systems; and social work strategies for working with varied clients, and their families, who are involved with these systems, including rural clients. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 816. PRACTICE WITH CHILDREN AND YOUTH. Examines the major problems, legal and clinical issues encountered when working with children. Special concern for victimized and at risk children in the rural setting. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 821. DRUG AND ALCOHOL ABUSE. Explores the biopsycho-social processes which influence substance use and abuse, as well as service provision and regulations in this region and treatment modalities and issues for varied client groups, including women, youth, minorities and the elderly. Prerequisites: 2nd year standing or instructor permission. (3 crs.)

SWK 829. ADVANCED FIELD PRACTICUM. Two semester placement in supervised social agency setting for three days a week, providing opportunity for advanced generalist practice with varying size client systems. Prerequisites: 2nd year standing, concurrent SWK 830 & SWK 832. (4 crs.)

SWK 830. ADVANCED FIELD PRACTICUM. Two semester placement in supervised social agency setting for three days a week, providing opportunity for advanced generalist practice with varying size client systems. Prerequisites: 2nd year standing, concurrent SWK 829 & SWK 832. (4 crs.)

SWK 832. RURAL ADVANCED GENERALIST Integrative Seminar. Integration of theory and practice within the context of professionalism and social work ethics. Prerequisites: concurrent with SWK 830. (1 cr.)

SWK 840. SPECIAL TOPICS. Study of selected topics of significance or current importance and interest to the social work profession. Prerequisites: Instructor permission. (v crs.)

SPECIAL EDUCATION - ESP

ESP 501. INTRODUCTION TO EXCEPTIONALITY. This course introduces the student to the physical, social, emotional and educational characteristics; incidence; prevalence and educational intervention for the major categories of exceptionality enrolled in public and private educational facilities in the K-12 grade range. In addition, the course will identify ancillary services and agencies frequently impacting special populations including the major professional organizations and those concerned with residential programming and vocational training. The course will also identify the major litigation and legislation that have significantly influenced the nature of service to exceptional populations. (3 crs.)

ESP 502. EDUCATION OF THE SEVERELY/PROFOUNDLY HANDICAPPED. This course teaches/prepares students to work with children and/or adults who possess severely or profoundly

handicapping conditions. Students are required to do tutoring at facilities for this population. (Variable crs.)

ESP 503. DIAGNOSTIC TESTING AND PRESCRIPTIVE TEACHING. This course teaches students how to administer, score, and interpret both norm-referenced and criterion-referenced assessment devices and how to prescribe programs of remediation based on the results of these devices. (Variable crs.)

ESP 504. CURRICULUM PLANNING AND METHODS I. This course is offered to Special Education majors the semester prior to their student teaching experience. Curriculum Planning and Methods I is a materials and methodology course for pre-service special education teachers. An emphasis is placed on assessment, instructional techniques, and materials necessary to teach reading and language arts skills and concepts to children with disabilities. The course stresses: (1) a behavioral diagnosis of communication strengths and weaknesses, (2) the development and implementation of intervention strategies for various populations of exceptional children, (3) the selection and/or development of appropriate materials for instructin, and (4) the procedures and techniques for continuous evaluation for the instructional process. (Variable crs.)

ESP 505. CURRICULUM PLANNING AND METHODS II. This course is offered to Special Education majors the semester prior to their student teaching experience. Curriculum Planning and Methods II is a methods course for Special Education teachers in training which emphasizes the assessment, instructional skills and materials necessary to teach arithmetic concepts to children with disabilities. The course stresses: (1) a behavioral diagnosis of arithmetic strengths and weaknesses, (2) the development and implementation of intervention strategies for various populations of exceptional children, (3) the selection and/or development of appropriate materials for instruction, and (4) the procedures and techniques for continuous evaluation for the instructional process. (Variable crs.)

ESP 506. HABILITATION TRAINING. This course deals with special education programs for senior high school students as well as those persons who reside in the community. Emphasis is placed on vocational preparation and training. Specific techniques for task analysis of jobs, daily living skills, and social adaptation constitute a major portion of this course. Emphasis is placed on the development of functional skills that contribute to normalized development. (Variable crs.)

ESP 701. INTRODUCTION TO BEHAVIOR ANALYSIS. The basic learning principles of operant and classical conditioning, with the application of these principles with handicapped individuals. (3 crs.)

ESP 712. SEMINAR ON CONTEMPORARY TRENDS AND ISSUES. Recent developments in all areas of special education. Sample topics are inclusion, block scheduling, interactive teaming, alternative assessment, deinstitutionalization and curriculum issues.

ESP 720. SPECIAL EDUCATION TEACHING PRACTICUM. Required of all graduate students. Educational work with handicapped children or adults in a variety of settings, including special public school classes and classes in residential treatment centers, special schools, and hospitals. Opportunities for case conferences.

learning seminars, and teaching critiques are offered, as well as numerous field experiences to observe successful programs. (3-9 crs.)

ESP 732. SEMINAR IN SPECIAL EDUCATION ADMINISTRA-TION AND SUPERVISION. For supervisors and administrators, those seeking alternatives in education, and teachers who wish to communicate effectively with supervisors and administrators. Sample topics may include such matters as the role and function of supervisors and administrators, budgeting and financial issues, measures of teacher effectiveness, accountability, and legal standards. (3 crs.)

ESP 734. SEMINAR IN COUNSELING PARENTS OF EXCEP-TIONAL CHILDREN. Designed to improve the skills of professionals, related to their interaction with parents of exceptional children, this course provides an opportunity to learn the special needs of parents, techniques of communication, processes by which change can be implemented, legal rights and implications and resources. Participants are encouraged to assume the role of a parental consultant. (3 crs.)

ESP 735. SEMINAR IN EDUCATING THE GIFTED. Presentation by class members of selected topics related to the gifted. State standards and guidelines for programs are discussed, as well as materials for use in classes for the gifted. Students observe classes for the gifted and talented. (3 crs.)

ESP 737. SEMINAR ON LEGISLATION AND LITIGATION. Laws and court cases, both federal and local, that have precipitated the initiation of programs for the exceptional child and with parents' efforts to receive legal support for opportunities for their children to receive an appropriate education. (3 crs.)

ESP 738. SEMINAR ON TEACHER BEHAVIOR AND GROUP DYNAMICS.

An advanced course in methodology and applications, in which the graduate student is given the opportunity to refine many of the skills and behaviors acquired in previous courses in Special Education, especially as related to the skills and methods that contribute to effective classroom instruction and management. (3 crs.)

ESP 739. FIELD EXPERIENCE SEMINAR IN SPECIAL EDUCATION. A means for graduate students to obtain needed experiences with various groups of handicapped children, in such settings as an institution, a sheltered workshop, an activity center, a summer camp, a community MH/MR facility, or by doing a specific piece of research with a particular population of students. Specific requirements for individual graduate students are developed by those students and the supervising professor. (3 crs.)

ESP 800. SEMINAR IN ADVANCED BEHAVIOR ANALYSIS AND RESEARCH DESIGN. This is the required research course in special education. The course covers the field of research design and methodology in intrasubject experimentation. Required of all students in the masters degree curriculum. (3 crs.)

TECHNOLOGY EDUCATION - TED

TED 500. TEACHING TECHNOLOGY IN THE ELEMENTARY SCHOOL. This course is designed for pre-service and in-service Technology Education majors. The primary objectives are to define the study of technology as an academic discipline and develop a

perspective of the role of technology as a universal integrator of primary school learning activities. Each student is required to develop a series of technology-based thematic units that integrate the learning of math, science, social science, language arts, etc., constructs. This course includes three lecture hours and one laboratory hour per week. Prerequisite: PSY 208. (3 crs.)

TED 700. FOUNDATIONS OF TECHNOLOGY EDUCATION. This course examines the roles of technology and technology education in today's public schools. A historical review of the liberal and manual arts as they evolved over the past 10,000 years provides the student with a broad understanding of the philosophies and goals of general education. The study of technology and its systems are examined as an academic discipline. This effort will assist in-service instructors to redirect their teaching methods currently used in grades K-12. (3 crs.)

TED 710. ORGANIZATION AND ADMINISTRATION OF TECHNOLOGY EDUCATION. A critical analysis of the administrative and organizational problems related to the various types of technology education problems and the role of the administrator and teacher in developing, organizing, and evaluating these efforts as an integral part of the total school program. Emphasis is placed on teaching methodologies and activities used in the technology education laboratory: e.g., the organization of facilities, resources for an instructor, measure of teacher effectiveness, meeting the needs of special students and human growth and development as they relate to this field of education. (3 crs.)

TED 720. IMPLEMENTING TECHNOLOGY EDUCATION. A course to assist in-service industrial arts teachers in understanding and implementing technology education. Presentations will focus on historical perspectives, contemporary content, teaching strategies, instructional resources and standards for technology education. Participants develop curriculum materials for a technology education program that includes the technological systems of Communications, Energy/Transportation and Manufacturing/ Construction. Emphasis is placed on change strategies, student activities, and program evaluation. (3 crs.)

TED 730. COMMUNICATION SYSTEMS. An in-depth study into the types of communication systems and their concepts of operation, transmission and retrieval of information. An insight into such topics as artificial intelligence, satellites, digital audio, LAN architectures, and fiber optics will be covered in this course. The graduate student participates in products/activities and develops a communication system related to classroom teaching. (3 crs.)

TED 735. ADVANCED STUDIES IN COMMUNICATION. A course which provides opportunity for advanced study or investigation into the various components of communication technology. Study is in the form of short concentrated sessions or on an individual basis. (1-3 crs.)

TED 740. PRODUCTION SYSTEMS. This course provides the technology education graduate student with educational experiences and activities related to the teaching of manufacturing and construction technology. Class participants research the current trends and possible future directions of the technology education field. Skill development in the technical content of areas of manufacturing and construction such as computer applications in CAD/CAM is included. Students also develop and test curriculum materials for the manufacturing and construction content areas on the elementary,

junior and senior high school levels. Based upon prior student experiences, peer teaching and participation in a student-directed enterprise activity may be included. (3 crs.)

TED 745. ADVANCED STUDIES IN PRODUCTION. This course provides the graduate student with the opportunities to experience and research various technologies and methods in the areas of manufacturing or construction. An intense in-depth study is made in relation to selected topics on an individual basis or as a short term concentrated study session for a group. (1-3 crs.)

TED 750. TRANSPORTATION SYSTEMS. A student-directed course consisting of three components: (a) enhancement of technical skills related to transportation technology, (b) conducting research in the field of transportation, and (c) creating and testing transportation curriculum and instructional materials. Students will design transportation-related curricular materials based on their research while developing the laboratory skills necessary to teach courses/units in transportation technology education. (3 crs.)

TED 755. ADVANCED STUDIES IN TRANSPORTATION. The graduate students enrolled in this class will be part of concentrated study sessions or individually conducted investigations of learning new technologies or methodologies related to the systems of land, air, water or space transportation. (1-3 crs.)

TED 760. TECHNOLOGY EDUCATION AND INDUSTRIAL PRACTICES WORKSHOP. A workshop course designed to acquaint the student with industrial plants and practices in the Tristate area. The workshop provides the student with an opportunity to understand the operation of a variety of industries and the incorporation of the information into selected teaching techniques for technology education classes. (1-3 crs.)

TED 765. SPECIAL PROBLEMS IN TECHNOLOGY EDUCA-TION. Original investigations in the field of technology education. The nature of the problem will determine the credit-hour load. The student will provide evidence of the ability to conduct independent study and gain credit by reporting the findings effectively. (1-3 crs.)

TED 766. SPECIAL PROBLEMS IN TECHNOLOGY EDUCA-TION. Original investigations in the field of technology education. The nature of the problem will determine the credit hour load. The student will provide evidence of the ability to conduct independent study and gain credit by reporting the findings effectively. (1-3 crs.)

TED 791. PRACTICUM I: TECHNOLOGY EDUCATION SUPERVISION. Supervised school experiences that provide the prospective supervisor with the opportunity to observe such duties, and to learn about school organization and procedures essential for successful supervision. The prospective supervisor performs functions in association with teacher interviewing, budget planning, teacher and student scheduling, and evaluation of technology education facilities and programs. (Practicum I may be scheduled when initial enrollment is made in the supervisory plan.) (2 crs.)

TED 792. PRACTICUM II: TECHNOLOGY EDUCATION SUPERVISION. A continuation of supervisory experiences from Practicum I, with more emphasis placed on the supervisory candidate playing the role of a technology education supervisor. The candidate demonstrates supervisory competencies through the

development, planning, and conducting of an in-service program for technology education teachers; public relation activities in terms of news releases and industrial relations; and participates in inner-city or rural school experiences. Prerequisites: Admission to Candidacy for the Supervisory Certificate and TED 791. (2 crs.)

UNIVERSITY SERVICES

Louis L. Manderino Library

The Louis L. Manderino Libtary houses a collection of some 365,000 volumes, 1.4 million microfilms, 60,000 audiovisual materials, over 30,000 US government Documents, and subscribes to over 1300 serial publications. In addition, the library provides access to databases with over 4000 periodical titles available in full-text. As part of the Keystone Library Network, the library shares a common integrated library system (PILOT) with the other 13 university libraries in the State System of Higher Education. In addition to California's on-line catalog, students can also access to online catalogs of the other libraries in the system. To supplement the research potential of students, the library provides on-line searching of databases at remote sites via DIALOG and FirstSearch, as well as providing document delivery service of periodical articles through subscription to the UMI/British Library Document Supply Centre. As a member of the Interlibrary Delivery Service of Pennsylvania, shipping and receiving library materials is accomplished in three days or less. For additional information, please check the library's homepage at www.library.cup.edu.

The library also offers such servicesas a large reference collection, Netscape access to the World-WideWeb, photocopiers, syllabi for California University courses, computer software, a collection of art slides, a curriculum library for teacher education students, and a media service center with equipment and audiovisual materials, plus lamination and binding services. In addition, Manderino Library is an official federal Government Documents Depository and regularly receives large numbers of government documents, such as census, data, reports, maps, and the Congressional Record. The Documents Librarian will assist with the use of tese important resources.

The staff of the Louis L. Manderino Library are "user-friendly" and welcome any suggestions not only for materials to add to the collection but also for improvement of services.

PILOT

Computerized information retrieval has made library research faster, more thorough, and more efficient. PILOT, the on-line public access catalog, is a user friendsly resource that can be used to quickly locate books, audiovisual materials, or government documents in the library's collection, and also to print, download, or e-mail the retrieved information. PILOT uses a Web interface and is accessible from any computer connected to the World Wide Web, whether in the library, on campus, or anywhere in the world.

Electronic Resources

The Manderino Library proveides access to the following electronic resourses:*

*Manderino Library is committed to offering quality on-line resources. This list refledts our offerings as of Spring 1999. Given the dynamic nature of electornic resources, changes may occur - including the addition of more resources.

Britannica Online

Buckmaster Annual Stockholder reports

CIOS: Communication Institute for Online Scholarship

EBSCOhost:

Academic Search FullTEXT Elite-scholoarly journals covering the social sciences, humani ties, eduation, and more (some full-text since 1990)

Business Source Elite - business periodicals, including The Wall Street Journal (some full-text)

FirstSearch:

MLA Bibliography

InfoTrac SearchBank:

Expanded Academic- liberal arts subjects Business and Company - business, manage ment, finance, etc.

Lexis-Nexis Academic Universe

Proquest Direct: Some full-text coverage of twelve newspaapers: Atlanta Journal-Constitution, Boston Globe, Chicago Tribune, Christian Science Monitor, Angeles Times, the New York times, The New Tork Times Book Review, the New York Times Magazine; USA TODAY, Washington Post, Pittsburgh Post-Gazette, and The Wall Street Journal.

STAT-USA

WebSpirs:

GENERAL - Books in Print, Books Out of Print, Current Biography, Essay & General Literature

EDUCATION - ERIC, Education Abstracts Full

Text

HEALTH and SPORTS - CINAHL, SPORT

Discus

HUMANITIES - Art Abstracts

SCIENCE - applied Science and Technology Abstracts, Biological Abstracts, GeoRef, GeoRef in Process, GeoRefSericals SOCIAL SCIENCE - Criminal Justice Abstracts, NASW Clinical Register, PAIS International, PsycINFO, Sociological Ab stracts, Social Work Abstracts, Mental Measure ments Yearbook

Brief tutorical sessions, on-line help, and individual assistance from reference librarians aid the student who might need additional help. The library faculty also represent indepth library-use training sessions, in conjunction with specific university classes.

Technology On Campus Computing Services Center

The University Computing Services Center is located in the basement of Manderino Library. Staff offices are open Monday through Friday from 8 a.m. until 4 p.m. User facilities in the World Culture Building are available for student use.

The computer facilities at the university are separated into two distinct functional areas. One area deals with providing computer resources to meet the instructional and research needs of the university, such as student access for coursework and the Manderino Library on-line catalog. The other area deals with providing resources to meet the administrative needs of the university.

Computer Accounts

Students who register for classes automatically have a VMS and Windows/NT computer account created for their use during the semester. There is no charge for the service or for the use of the computer network.

Campus Network

The university campus buildings are connected together via a high-speed state-of-the-art ATM local area network. Fiber Optic ATM connects every floor to the campus backbone and each floor has switched Ethernet to every room including offices, classrooms, labs and dorm rooms. Southpointe Center is connected via a high-speed ATM WAN which exteds all computer resources to Southpointe. The network also provide the capapbility for distance learning programs. The university is connected to the Internet via SSHENET II. This statewide network includes all of the State System of Higher Education Universities and the Office of the Chancellor.

Instructional Computing Facility

The Instructional Computing Facility (ICF) located in the basement of the World Culture building is the main center for student campus network access and general use desktop computing. This facility contains various personal computer systems and printers in the laboratories and classroom. The facility provides access to adaptive technology systems.

Entrance to the ICF is through the University Avenue (west) entrance or via the elevator. Generally, the labs are open seven days a week during fall and spring semesters and five days a week during summer sessions. However, schedules may change and the hours are posted each semester in the ICF and can be requested by calling 938-4335 or by typing HOURS at the system prompt.

Distance Education

As a leader in technology instruction, California University of Pennsylvania has numerous courses that are currently delieverd via distance learning. Classes can originate, and be received at, the main campus and from off-campus sites like the Southpointe Center. These courses are delivered instantly using state-of-the-are videoconferencing systems across the university's data network.

Distance Education equipment allows the transmission of audi audo and video between two or more locations for the purpose of delivering instruction, enhancing educational experiences, conducting meetings, and participating in conferences. Some of the equipment includes a multimedia projetion system; document stand for displaying documents, photos, and objects; automatic tracking camera; and computer for demonstrating software, accessing the Internet, and making multi-media presentations.

Distance Education classrooms contain video cameras and sesitive microphones that can be controlled from a remote site. Always assume what you are doing and saying is being seen and heard ANYTIME you are in or near a classroom. Also, be aware that transmission of audio and video can occur with the monitors off, and conversations in the hall outside of classrooms may be heard. Private conversations should occur at some other location the the Distance Education classroom.

Other Campus Facilities

Many departments have microcomputers for student and staff use; only some of the facilities are listed here. Additional camups microcomputer laboratories are located in and operated by various departments on campus including Applied Engineering and Technology, Business and Economics, Mathematics and Computer Science, College of Education, and the English Departments's Word Processing Laboratory and Computer Center. The College of Education and Human Services maintains a Teacher Education Computer Lab in the Keystone Education Building. There is also a Student Access Center Computer ab located on the first level of the Natali Student Center. The Office of Life Long Learning operates a microcomputer laboratory in Maderino Library. The Southpointe Center provides a laboratory for instructional use. Contact your department for specific information about laboratory facilities available for educational purposes.

Teacher Education Computer Lab

The College of Education and Human Services maintains a computer laboratory in the Keystone Education Building, Room 402. The facility is equipped and designed to train prospective teachers to use computers as tools to support their teaching and instructional management roles.

Equipment includes 16 teaching stations, each consisting of one of the Apple Macintosh family of computers with one hard drive, one floppy drive, and a color monitor. In addition, each station is part of an AppleTalk Network linked to a Macintosh IIsi. Each position is linked to a laser printer or one of several dot matrix printers. There are more than 100 titles of instructional software available for examination and evaluation.

The laboratory facilities are used for formal instruction for the course EDF 301, Computers for Teachers, about one half of each weekday.

During the remainder of the day, until 10:00 p.m., the laboratory is staffed and available to complete assignments for the course, which is required of all Teacher Education majors, or other uses students may have. Other than the inexpensive data disks, there is no cost to students.

English Department Computer Center (EDCC)

The English Department has its own computer center for word processing, desktop publishing, Internet research and distance learning. The EDCC, located in World Culture 203, consists of a lab classroom with 26 PC-compatible computers, an open lab area with 10 PC-compatible computers, and an additional lab with 10 Macintosh computers. The EDCC classroom is available for various English courses, including Scientific and Technical Writing, Business Writing, Journalism and English Composition I and II. When the EDCC is not being used for teaching, it is available for general student use.

These computers are a part of the university's network, and they can be used to communicate via e-mail, access the Internet and browse the World Wide Web. Currently, the PC-compatible computers facilitate word processing through WordPerfect 5.1 and MS Word 7.0. The Macintosh computers are have MacWrite II and Pro, ClarisWorks, and Super Paint. For desktop publishing, the lab has Windows 95 with MS Office 97, Paint Shop Pro, Calera Wordscan, Aldus Pagemaker 5.0 and a few other graphics conversion utilities for creating Web pages.

For printing, there are four laser printers networked to the computers. Two or three expert student workers are always on hand to assist students and monitor the equipment. The EDCC also has opportunities for work-study jobs for students with a moderate to strong background in word processing or computer science.

The EDCC director is available via e-mail or in person to answer questions about the lab. More information about the EDCC or the English department is available on the department's website at http://www.english.cup.edu.

Student Access Center Computer Lab

Located on the first level of the Natali Student Center, the access center houses a Macintosh Computer Lab.

The computer lab permits student access to a number of computers provided for personal use. The lab is open seven days a week (including evening hours) and remains open twenty-four hours a day during the last weeks of the semester. The Student Association, Inc., supports and maintains the computer lab.

Campus Learning Labs

Mathematics Lab

The following services and resources are offered free in the Mathematics Laboratory in 115 Noss Hall:

- 1. tutorial support in math and math-related courses
- 2. video tape tutorials on most algebra topics
- 3. computer-directed instruction software for many topics
- 4. math anxiety software and reference books

Success in a math course is achieved by working on assignments as soon as possible after class and by making accomplishments each day. Students who have difficulty with math courses should call 938–5893 to schedule a 30-minute appointment. They should bring attempted homework with them.

The Lab's video tape tutorials are written by one of the authors of the Introductory Algebra text. They are informative to students who need algebra assistance in any course. The tapes, 15-30 minutes long, are available for use in the Math Lab and on overnight sign-out basis.

One hundred fifty computer-directed instruction software disks are available. The disks give two to three screen overviews, three or four worked problems, and three or four practice problems. Software is available for topics from basic mathematics to calculus. Most computer software lessons can be completed in 15 minutes.

Nationally renowned authors claim that half of all college students are math anxious. Many math anxious students have physiological symptoms, including headaches or stomach aches. Students with these symptoms only in math environments should discuss this with a Math Lab tutor or with the Math Lab Director.

Reading Clinic

When your reading assignments make you feel as if you are lost in the university jungle, come to the Reading Clinic for a free one-hour tutoring session. Staffed by one faculty member and two graduate assistants, the Clinic teaches techniques to improve reading comprehension and vocabulary.

The Clinic offers help in identifying main ideas, making inferences, drawing conclusions, understanding concepts and facts, test-taking skills and building vocabulary. Students make appointments to work privately with a tutor or schedule an independent lab session that is staff-directed.

The Reading Clinic is housed in the Keystone Building, Room 200A and is open from 9:00 a.m. to 4:00 p.m., Monday through Friday.

Writing Center

The Writing Center, Noss 120, is a non-credit English language resource provided by, and administered through, the English department. An integral part of the three-course Composition Program, the Writing Center's main purpose is to assist students at every level and from every academic discipline with their writing projects. Students visit the Writing Center for various types of assistance, including help in getting started on a writing assignment; consultation about thesis, organization and development; assistance with grammar; information about bibliographies and footnotes; and help with proofreading and editing. Proceeding entirely on a oneto-one basis, visitors receive the optimal amount of individual attention from trained tutors who use a collaborative model tutoring method. In this model, tutors function not as authoritarian experts who take over a student's paper in order to "fix it up," but rather as coaches and guides who collaborate with writers in ways that facilitate the process of writers solving their own writing problems and developing their own ideas.

The Center is open during the regular academic year from 9 a.m. to 9 p.m., Monday through Thursday, 9 a.m. to noon on Friday, and 4 p.m. to 9 p.m. on Sunday. A variable summer schedule is also offered. In addition, the Center provides online tutorial services via its "Virtual Writing Center," accessible at the following URL: www.english.cup.edu/wcenter/wcenter.html

At this web site, students can utilize the "Virtual Library," a collection of eight rich links dealing with just about any writing subject imaginable, from scores of grammar handouts, to on-line dictionaries and search engines, to the broad world of publishing and more. In addition, students can receive online tutoring assistance with their writing via the OWL (Online Writing Lab). The OWL allows a writer to electronically pose a question about her writing, or to electronically send a portion of her writing, to which she will receive an e-mail answer or response from one of the Writing Center tutors.

A completely free service, anyone is welcome to walk in, call for an appointment (938-4336), or visit via the Virtual Writing Center.

CARE Project

Services for Students with Learning Disabilities

The CARE Project is the designated provider of services to students with learning disabilities who are enrolled in California University of Pennsylvania. The university is committed to providing services for this population which will increase the prospects for success. Students with learning disabilities have two different levels of service available to them.

All reasonable accommodations appropriateper the students' documentation to offset the disability and which do not change the academic/technical standards are availabel upon request for both programs.

Specialized Support Service Program (SSSP)

The Specialized Support Service Program (SSSP) serves a maximum of 40 participants each semester on a fee-for-service basis. A commitment by the student to the required responsibilities and procedures of the SSSP is carried out through a contractual agreement with the participants, parents and CARE staff. All SSSP students must participate in Structured Academic Management Seminars. First semester students attend seminars for a minimum of eight hours per week. Subsequent levels of participation are based on the student's academic performance. Support Services may include:

- * Daily study plans with assigned undergraduate and graduate monitors
- * Academic assignment tast management and sequencing
- *Daily performance monitoring by staff adn participant.
- *Referral to/liason with other campus support facilities and departments.
- * Individual and small group assistance with study strategies by CARE staff.
- *Progress reports to parents.
- * Access to computer lab and appropriate sofware.

Modified Basic Support Program (MBSP)

The Modified Basic Support Program (MBSP) insures the availability of basic services for all students with learning disabilities enrolled in the university and is consistent with 504/ADA guidelines. When SSSP enrollment is at maximum, or when students eligible for SSSP decline those services, students may request services from the MBSP.

MBSP participants generally function independently with the university system. Participants may meet with a member of the CARE Project staff in a conference setting if requested, for assistance with self-advocacy, e.g. for assistance with accommodation reequests and for information regarding university procedures/tutorial centers. Non-fee, basic accommodations are provided on an as-needed basis.

Application Information

It is recommended that applicants begin correspondence with the CARE Project offic when they begin the application process with the university. Students with learning disabilities who are applying to California University of PA and for CARE Project services should do the following:

Request an admissions packet from the California University Admissions office AND request a CARE application from the CARE Project office.

Under separate cover, submit the competed admissions packet to the Admissions office AND submit the completed documentation packed to the CARE Project office.

Special Notes

Students with learning disabilities follow the same admission procedures and standards as required by California University's Admissions office for all students. Questions regarding admission procedures and acceptance status should be directed to the Admissions office at 724-938-4404.

Questions regarding CARE application procedures and eligibility for services should be directed to teh CARE Project office in the Keystone Education Building - Room 110 or call 724-938-5781. Applicants may also write to:

CARE Project
California University of PA
250 University Avenue-Box #66
California, Pennsylvania 15419

Career Services

The primary purpose of Career Services, located in the Eberly Science & Technology Center, is to assist students in developing, evaluating, and effectively implementing appropriate career plans. Undergraduates, seniors, graduate students, and alumnimay obtain general advice and information on career and job search strategies.

On-campus interviews and informational sessions are scheduled for students interested in meeting with representatives from business firms, government agencies, industries, and school districts seeking candidates for employment. The "career center" houses career planning and company literature as well as information on current job opportunities.

Students are encouraged to visit Career Services to:

- schedule a session on the computerized guidance sys tem;
- use the career center media, including: videos, audio tapes, and computerized software resources;
- see a staff member about any career issues, including graduate and professional schools;
- · attend career workshops, job fairs, and special programs;
- learn about alumni who will discuss their careers;
- investigate cooperative education, internships, and community service opportunities;
- register for undergraduate one-credit JOB READINESS course;
- register for graduate one-credit CAREER TRANSITION SEMINAR course
- make an appointment for a "mock" interview;
- access "Career Connections" Job Hot Line for full-time, part-time, co-op, internships, and seasonal jobs;
- · enroll in disc management;
- information guides for resume writing, interviewing, cover letters, and job search;
- get the most up-to-date information on company recruiting visits;
- sign-up for campus interviews and information sessions;
 search the "web" for job opportunities.

Please visit our website at www.cup.edu/career

Cooperative Education

Cooperative Education allows students to be employed—whether in business, industry, government, education or service organizations—in paid positions directly related to their academic majors or career plans. Cooperative Education positions are pre-professional, monitored by faculty members, and coordinated by the university. Students may be employed part or full-time, and may choose to work during the fall, spring and/or summer semester. Undergraduates, as well as graduate students, in all academic majors are encouraged to participate provided they meet the eligibility

requirements. It is expected that the student's cooperative education experience(s) will span two semesters or summers while enrolled at California.

CO-OP Eligiblity

- Completion of Career Readiness, a 1 credit course.
- Completion of 30 credits (Associate's 15; Master's 6)
 Students must have at least a 2.0 overall quality grade point average (3.0 for Master's).
- Agreement to compete 2 co-op experiences (experiences can be completed in the summer) 1 semester for Associate's or Master's.

Three Ways to Fit CO-OP Into an Academic Program:

- 1. Work part-time while still enrolled full time in clsses.
- Work full time with no classes scheduled for the summer.
- 3. Work full time or part-time in the summer.

Where Can I Work?

- * Students can work either locally or nationwide.
- * Last year, CO-OP advertised 747 positions throughout the U.S. and abroad.
- * The CO-OP staff also assists students in developing CO-OP sites in any location.

How Does CO-OP Differ from Internships?

- * All CO-OP positions are paid Internship positions can be either paid or unpaid.
- * CO-OP is administered through Career Services -Internships are administered through Academic Depart ments.
- * Students do not receive credit for CO-OP experience -All internship experiences are for credit.
- * (Students do receive notation on their transcript for the CO-OP experience)

Cooperative Education positions are advertised on the Job Hotline. Students who enroll in Cooperative Education are eligible to apply for advertised positions. Additional information and appointments with members of the Cooperative Education staff are available in the Career Services Department.

Public Safety

The Department of Public Safety and University Police at California University is a fully recognized law enforcement agency as authorized by 71 P.S. 646, the Administrative Code of 1929 as amended and Title 18 of the Pennsylvania Consolidated Statutes, (Crime and Offenses) and 24 P.S. 20–1006–A(14) 20–2010A (5) of the State System of Higher Education Act.

The department consists of professionally trained individuals capable of responding to requests for assistance in routine and emergency situations. The department, a diverse group of police officers, communications, and secretarial staff, provides continuous 24 hour assistance to the university community.

The staff includes a director, assistant director, two shift supervisors and ten additional commissioned police officers who have received training at the Pennsylvania State Police Academy. Three public safety communications officers and one departmental secretary contribute to the operation of the department. Public safety personnel are certified in CPR, basic first aid procedures, and the emergency medical airborne evacuation policy and procedure for transportation of the seriously ill or critically injured.

Additional services offered to university students, faculty, and staff consist of parking and traffic management, criminal investigations, health, fire, and safety surveys, special event planning, accident investigation, and crime prevention information and presentations.

Pursuant to the Pennsylvania College and University Security Act, and the Federal Crime Awareness and Campus Security Act of 1990, post–secondary institutions, including colleges and universities, must provide information with respect to campus crime statistics and security policies of the institution and prepare, publish and distribute to all applicants, students and employees, annually, information with respect to these areas.

The information is compiled by California University, and made available through the Office of Admissions, the Office of Student Development and Services, and the Office of Public Safety.

Character Education Institute

The California University Character Education Institute opened in January 1995, in response to a report from the Pennsylvania State System of Higher Education urging the system's universities to give increased attention to values during the 1990s.

Goals of the Institute

The Character Education Institute has two broad goals:

- To serve as a resource to the university's colleges, departments, and student organizations as they contribute to the moral development of California University students.
- To provide an outreach to local school districts and parents as they influence the moral development of their children.

Services

 The institute maintains a resource center that contains character education curriculum materials, books, journals, newsletters, audio and videotapes, and a clipping file on special subjects; e.g., values in athletics.

These materials are available to university faculty, staff, administrators, and students and to staff and school directors from local school districts.

- The director of the Character Education Institute can provide consultant help to members of the university community as they seek to infuse the school's core values into their areas of responsibility.
- Consultant services are also available to local school districts that want to study formal character education programs.
- Parenting programs are available to local school districts and other organizations concerned with character development.

The Character Education Institute is located in 409 Keystone Education Center, across Third Street from Natali Student Center. To obtain additional information about the California University Character Education Institute, please contact:

Director, Character Education Institute California University of PA 250 University Avenue California, PA 15419-1394 Telephone: (724) 938-4500

Fax: (724) 938-4156

University Advancement

The Office of University Advancement develops programs and undertakes activities that promote understanding of, and support for the university's goals. It provides information and services for students, parents of students, alumni, faculty, the business community, regional citizens, the media and donors to the university and the Foundation for California University of Pennsylvania. University Advancement is responsible for alumni relations, public relations, development and public service.

Alumni Relations

The Office of Alumni Relations, located in Old Main under the twin towers, is the liaison between the university and its 37,000 living alumni, who receive copies of *The Cal U Review* (alumni magazine), and notices about various special events. The office coordinates Move In Day, Homecoming, Alumni Day, and numerous social and cultural programs for alumni both on and off campus. Alumni Relations manages the network of alumni chapters across the nation and works closely with the Alumni Association (see below). In addition, the office of Alumni Relations is home to the Student Ambassadors Program and maintains a toll-free telephone hotline with information changing daily (1-800-4-CAL-NEWS or 938-4507 locally).

Public Relations

The Office of Public Relations, informs the campus community and public at large of the university's activities and news. For example, this department notifies hometown newspapers of student accomplishments. The department also manages university advertising, information on the university web site, produces numerous publications and acts as the university's media contact.

Foundation for California University of Pennsylvania

The Foundation for California University of Pennsylvania, located on the third floor of South Hall, raises funds from foundations, businesses, alumni, staff, faculty and friends to benefit the university. It undertakes annual fund campaigns, deferred or planned giving programs and capital campaigns. It also administers a fund which loans money to students for travel in the event of family emergency.

Mon Valley Renaissance

Mon Valley Renaissance, located on the first floor of South Hall and various other sites, is the university's unique public service agency which helps foster regional economic development. It helps individuals and businesses through counseling, training, business consulting services and government contracting/export assistance.

Alumni Association

The California University Alumni Association serves California University and its alumni by fostering beneficial relationships among alumni, students and the university. By awarding scholarships, it also encourages outstanding academic and extracurricular achievement by undergraduate and graduate students.

The university's alumni have been organized since 1939. Today, nearly 37,000 graduates and numerous former students are members of the Association. A board comprised of three classes of alumni directors is elected for three-year terms. The board officers work closely with the university's President and the Office of Alumni Relations.

STUDENT DEVELOPMENT AND **SERVICES**

Inherent in the university's mission is a commitment to the total development of all students. The Office of Student Development and Services, under the direction of the vice president for Student Development and Services, is administratively responsible for the implementation of this commitment.

The central focus of the program is personalization of the university experience, with concern for not only individual intellectual development but for personal, social, and physical development as well.

For additional information and regulations governing student life and conduct besides what is given below, students should refer to the current edition of The Student Handbook.

Opportunities for work-study jobs, graduate assistantships, internships, and volunteer work assignments are available for qualified students. Check with the various offices or departments to inquire about openings. This can be an opportunity to enhance curriculum studies.

Student Development and Services provides services to students in the following areas:

Academic Honorary Fraternities

Many academic departments at California University feature honorary fraternities for outstanding students. Please see the department description or talk to your advisor about an honorary fraternity in your major.

Activities

Adult Student Organization

Athletics Campus Ministry **Bookstore** Counseling Center Commuter Center

Dining Service Drug/Alcohol Program

Health Center

Herron Recreation and Fitness Center

Housing International Students Judicial Affairs Leadership Development

Minority Affairs

Residence Hall Programming

Student Government

Summer Camps/Conferencing Veterans Affairs

Media/Publications

Greek Life

Student Association, Inc. Study Around The World

Disabled Student Services

Women's Center Wellness/Awareness

CALCard—University ID Card

The CalCard is both a campus identification card and a convenient and safe way to make purchases and use services on campus. The CalCard is available to all California University of Pennsylvania students, faculty, staff and eligible guests.

The CalCard comes ready to use, preprogrammed with basic services, and then enhanced based on your needs. To begin using the dine account, deposit money at the Bursar's Office or at the CalCard Office Monday through Friday, 8 a.m. to 4 p.m., 724-938-4300.

CalCard Services

Manderino Library - The CalCard is the key to checking out materials at Manderino Library. This basic service is included on every CalCard.

Tickets* - Cal U students receive free admission to all home intercollegiate sporting events. Tickets for other events can be purchased using Shop dollars at the Information Center.

Fitness Center* - Cal U students receive unlimited access to the Herron Recreation and Fitness Center. Faculty, staff, alumni, and Southpointe students who have purchased a membership, will use their CalCard to gain admission to the fitness center.

Entertainment* - Cal U students receive free admission to most entertainment events sponsored by the Student Association, Inc. Your CalCard will provide free admission to the Vulcan Theater, Underground Cafe, as well as dozens of other events each semester.

AAA - Part of the basic service of each student CalCard is the AAA - Roadside Assistance Program. Under this program, Cal U students can receive two free limited roadside assistance calls from AAA. To use this feature, simply call the toll free number on the back of your CalCard.

Access - Students who reside in Johnson and Clyde Halls use their CalCard to access these halls.

*Students matriculating at Cal U Southpointe Center must purchase membership or tickets for recreational and entertainment events on campus.

CalCard Accounts

CalCard works like a credit card in that you don't have to carry cash. But it's better than a credit card because you deposit money in your account in advance so you don't have to worry about paying a bill at the end of the month. Finance charges are eliminated.

CalCard works like a checking account in that your accounts are debited each time you make a purchase. But it's better than a checking account because you don't have to carry your checkbook, replace checks, or carry several forms of identification for check approval.

Meal - Everyone enrolled in a meal plan will use the CalCard to pay for their meals. Whether eating at Gallagher Dining Hall, using the meal exchange or cash equivalency options at the Metropolitan Cafe or the Food Court, just give your CalCard to the cashier. Your Meal account is automatically reduced by one meal. Everyone enrolled in a meal plan will automatically receive a Dine account with an amount of \$100, \$125, or \$250 depending on the meal plan purchased.

Dine - Opening a declining balance Dine account is as simple as making a deposit at the Bursar's Office. Your Dine account can be used to pay for food at Gallagher Dining Hall, Herron Patio, the Metropolitan Cafe and Convenience Store, and the Washington Food Court.

Shop - A CalCard Shop account is the master debit account. Just make an initial deposit at the CalCard Office by check or credit card, or by cash at a Value Transfer Station, located in the Natali Student Center or Manderino Library. Your Shop dollars can be used at all food service locations, Cal U Student Bookstore, vending machines, laundry facilities, Manderino Library for photocopies (7¢) and overdue book fines, pool hall, information center for tickets, manuals, stamps and CalCards. Shop dollars carry over from semester to semester and can be refunded through complete withdrawal from the University.

Along with the various campus services, your CalCard can be used to receive discounts. This offer is good for all University students, faculty and staff. Stop by the Information Center for details or call the CalCard Office at 724-938-4300 or e-mail CalCard@cup.edu. Be sure to check the CalCard website for information at www.cup.edu.

Cal U Student Bookstore

The Cal U Student Bookstore, located on the second level of the Natali Student Center, offers a variety of services for all students, faculty and staff. Students can purchase new or used textbooks for their classes, with used books representing a 25% savings. A textbook reservation service is also available, allowing students to pre-order books before the first week of class. The bookstore also offers on-line service at www.efollett.com.

The Cal U Student Bookstore offers a variety of other items: Cal U clothing and giftware, magazines, newspapers, CDs, greeting cards, and computer software. School supplies, general reading books, and health and beauty aids are also available. We offer free special orders for any book that is not in stock.

Convenient store hours are:

Monday - Thursday 7:45 a.m. - 7 p.m. Friday 7:45 a.m. - 5 p.m. Saturday 11 a.m. - 5 p.m.

To place telephone orders or make inquiries, call 724-938-4324 during business hours.

Campus Ministry

Spiritual development is an integral part of the process of education and of human growth. A campus ministry, staffed by professional campus ministers, fosters the development of spiritual and religious student life.

The Campus Ministry of California University of Pennsylvania is located in the Natali Student Center, Room 143. Office hours are from 10 a.m. until 4 p.m. on weekdays while the university is in session. Campus ministers are on call twenty-four hours a day. Some of the services provided are worship, pastoral counseling, spiritual direction, information about local churches, and literature from participating faiths. The Campus Ministry sponsors or co-sponsors a variety of religious or service programs.

Students and their families, faculty and staff of the university are welcome to come to the Campus Ministry office at all times. They may also call the Campus Ministry at 724-938-4573. Campus Ministry cooperates with Student Development and Services and with other university departments for the well-being of the students.

The Catholic chaplains are funded by the Catholic Diocese of Pittsburgh. The Protestant chaplain is funded by the United Campus Ministry Council of California, which also places members of the Coalition for Christian Outreach. Although the chaplains are members of particular denominations, they serve all students, regardless of church affiliation. The chaplains will put students in touch with a priest, minister, cleric or rabbi of their chosen denominations.

The California Times (California Student Newspaper)

The California Times introduces students to the basic newspaper publication process. The newspaper is published on a weekly basis during the fall and spring semester, and four times during the summer. Students learn production skills using the computers available for production and students also learn writing and editing skills.

Clubs and Organizations

A large array of active clubs and student organizations are offered through academic departments and the Student Association, Inc. These groups provide social, educational, community service and leadership opportunities for students. They are advised by student selected members of the faculty and staff. Students are encouraged to initiate and support new groups which reflect interests not represented by existing organizations. A complete list of SAI-funded organizations, their current advisors and phone numbers may be found in the Student Handbook.

General Code of Conduct

The responsibility for administering student discipline at the university is vested in the Division of Student Development. Staff in the division investigate cases of misconduct, meet with students to discuss their rights and responsibilities and refer the case to the appropriate hearing body. Conduct rules, disciplinary penalties and complete hearing procedures are contained in the Rules of Conduct and Judicial Procedures handbook.

The university reserves the right, in the interest of all its students, to decline admission, to suspend, or to require the withdrawal of a student from university housing and/or the university after all appropriate university procedures have been followed.

Registration at the university assumes the student's acceptance of responsibility for compliance with all regulations published in the catalog, as well as any rules found in any official publication.

Commuter Center and Services

Commuter students comprise approximately two-thirds of the total student population. The commuter center, located on the first level of the Natali Student Center, offers a host of services and opportunities for involvement to commuter students.

The Commuter Center provides lounging areas, general information, computers, lockers, microwaves, a refrigerator, and cable television. In addition to providing a comfortable place to break away from classes, the Center is also a place for students to make social connections.

The Office of Student Development and Services and the Student Association jointly support commuter students at Cal U. All are encouraged to visit the Commuter Center to view both the Commuter Center and Commuter Council web pages via the Cal U website, www.cup.edu.

Counseling and Psychological Services

The Counseling Center staff provides personal, social,

psychological and career choice services to students with problems that interfere with their adjustment and effective educational performance while at the university.

Students having trouble understanding their feelings, maintaining satisfactory social and interpersonal relationships, or coping with academic demands, may benefit from seeing a counselor or psychologist at the Counseling Center.

Students can call the Center at 724-938-4191 for an appointment with a licensed psychologist or counselor. They can make the appointment themselves or be referred by a professor, fellow student, staff person or management personnel.

Students can talk to a counselor in private with assurance that the discussion will remain confidential.

The professional counselors have extended their services by developing a strong referral system locally on campus and off campus. Referrals can be made to any department or office on campus.

Please call 724-938-4191 or drop in at the Health Center. Office hours: 8 a.m. to 4 p.m. daily, Monday through Friday. Weekend and evening sessions are by appointment

CUTV (California University Television)

CUTV, California University Television, is the university's cable TV station which is owned and operated by the Student Association, Inc. CUTV is seen in over 50,000 homes, 24 hours a day through various cable systems, as well as providing programming to other broadcast systems. The mission of CUTV is to produce and provide programming of regional community interest, while giving students valuable hands-on educational experience in many areas. Students can get involved with CUTV in a variety of technical areas including camera work, editing, direction and other production roles, as well as on-air talent positions. These experiences for the Communication Studies major are invaluable to be hired in the field. For the student involved with CUTV as an activity, the technical, team-building and leadership skills acquired translate into any walk of life.

CUTV produces a variety of informational, educational and entertainment programs. Some of these programs include CUTV Newscenter - a weekly news show, Pride and Progress - a news magazine show focusing on Fayette County, a variety of local government meetings, including the Washington County Commissioners, Fright Night Fridays, a skit oriented horror movie show, and Outtakes with Fiore, a show dedicated to previewing and reviewing new movies. CUTV is also heavily involved with University and area high school sports coverage. CUTV produces all of California University's football and basketball coverage. CUTV also produces a weekly coach's show for the sport in season, as well as our popular High School Football Game of the Week. CUTV has also been responsible for producing

several Distance Learning courses to the region. These classes on tv provided area viewers the opportunity to gain college credits from the comfort of their homes.

CUTV has been nationally recognized and awarded by several organizations. The National Association of Collegiate Broadcasters (NACB) have awarded CUTV their "Best in the Nation" award for 1998, as well as awards for news, sports and news magazine shows. These awards were judged by CNN, ESPN and A&E. CUTV also received many coveted TELLY awards for our sports and documentary coverage. Any student can become part of the award winning team. Stop by the CUTV studios, located in the Natali Student Center, or contact J.R. Wheeler, Director of CUTV, room 150 of the Natali Student Center, phone: 938-4303 or e-mail: Wheeler@cup.edu.

Dining Services

The goal of University Dining Services is to provide a quality, cost effective, innovative dining program for students living on and off campus. The university encourages student involvement and awareness to help provide quality, nutritious meals at a reasonable cost. Dining locations provide an important environment for student interaction and socialization.

Do you want an all-you-can-eat, one-price-at-the-door option? Gallagher Dining Hall offers something for everyone, and even provides take-out. Are you looking for fast food with friends between classes? The staff at Herron Patio and the Washington Food Court aim to please. What about an early morning bagel, gourmet coffee or late night munchie? The Metropolitan Cafe provides those items, and much more. Need advice on special dietary concerns? The dining service management team provides dietary service for all your needs.

Students living in the residence hall have the opportunity to choose from three meal plans:

Plan A: 19 meal plan with \$100 Dine dollars. Plan B: 14 meal plan with \$100 Dine dollars.

Plan C: 125 meal/\$250 dine Block Plan.

Commuters may choose from the three meal plans above, or select from the following additional options offered specifically to meet the needs of the busy off-campus resident:

Plan D: 7 meal plan with \$100 dine dollars.

Plan E: 125 meal/\$125 dine Block Plan

Plan F: Dine dollars only plan, with initial minimum balance of \$50 dine dollars.

All students who live in a university residence hall are required to accept assignment to the meal program. The off-campus and commuter plans are for one full semester and may not be terminated. Dine dollars are included in each meal package and are non-refundable. The meal package refund policy for students who withdraw from the university

is based on the Refund/Repayment Schedule published by the Bursar's office under the refund section of this catalog. A detailed dining service brochure may be obtained from the assistant dean for student services, Natali Student Center, 724-938-4513.

Drug and Alcohol Programs

The drug and alcohol education and prevention program is located in Downey Garofalo Health Center. It provides programs for the university aimed at increasing awareness of alcohol and drug related issues. This program Includes consultation, intervention, counseling, education, awareness Choices is the assessment and intervention program designed to assist those whose behavior may be harmful to themselves or others because of alcohol or drug use. This program offers an opportunity for students to learn facts and to dispel myths concerning the use of alcohol and other drugs. Through group interaction activities students gain a sense of self and the impact their actions have on them. It is one approach by California University of Pennsylvania to provide a drug free community. For more information call 724-938-4191.

Cheers (Collegians Helping Educate Each Other Regarding Substances) is an educational component of the drug and alcohol program. Awareness, alternatives, peer education and other programs are offered through CHEERS. For more information call 724-938-4191.

Bacchus (Boost Alcohol Consciousness Concerning the Health of University Students) is a national student organization developed under the guidance of advisors from Student Development and Services. Through education and activities designed to increase awareness of changing alcohol issues, Bacchus advocated informed, independent decision making and respect for the choices of others. The Bacchus philosophy is that students can play a uniquely effective role in encouraging their peers to consider, talk honestly about and develop responsible habits and attitudes in their behavior toward beverage alcohol use or nonuse. BACCHUS operates a weekly coffeehouse. The Underground Cafe in Herron Patio which showcases the talents of Cal U students and promotes a responsible and healthy lifestyle. For more information check out their web page at www.cup.edu/ ~bacchus/.

California Campus Community Coalition is a committee represented by both the university and community. It addresses underage and dangerous drinking on campus and in the community.

Southwestern Pennsylvania Drug and Alcohol Consortium is a combined effort by California neighboring universities to provide a forum for discussion of relevant and current issues in drug and alcohol prevention and education as well as sharing of developmental programming ideas. The Consortium offers California and other universities access to a resource library consisting of videos, books, pamphlets and other information related to drug and alcohol use and abuse.

Emerging Leaders

The Emerging Leaders program equips potential student leaders with skills such as public speaking, team building, goal setting, motivation and event planning. Participants are introduced to several styles and theories of leadership. This interactive program invites speakers to host sessions on their area of expertise, while providing experiential exercises so that students may immediately put their new skills into action. This program is limited to 25 first year students and there is a \$25 registration fee. For more information contact Edward Eagle at 724-938-4303.

Health Services

The mission of the University Health Services is to provide high quality health care for our students; to direct students to other health care providers when appropriate; to provide emergency care for all members of the university community; to address the specific health needs of those members of the student population with special problems; and to conceive, develop and implement relevant health education programs for the university community.

The Downey-Garofalo Health Center is open 24 hours a day, seven days a week while the university is in session. A staff of full-time registered nurses is on duty at all hours. A qualified physician is on duty Monday through Friday, during specified hours.

Students must submit completed health forms as part of the admissions process. University health services are available to all registered undergraduate and graduate students. Employees, both faculty and staff, conference participants, visiting athletes and other visitors will be given emergency treatment if such an emergency occurs on the university campus. The physician will also refer students to local hospitals in emergencies and for other treatment beyond the capabilities of the University Health Center. (The University Health Center does not assume responsibility of doctor bills, hospital bills or prescription costs accrued by the students for treatment beyond capabilities of the University Health Center. The final decision in hospital selection is the student's.

Off-campus Housing

The primary consideration of off-campus housing is to help the student secure safe, appropriate housing and to educate the student about this endeavor.

The principle goals of the off-campus housing office are: to provide a base of operation for securing off-campus housing; to assist in securing off-campus housing and to promote responsible landlord/tenant/community

relations; to promote the safety and welfare of all students residing in off-campus housing; to ensure that students have useful resource materials at their disposal; to provide effective communication between the university, area officials and the community about off-campus housing issues; to expand programs to include campus/community/civic service and volunteerism within the off-campus student community; and to ensure that the rights of individuals with disabilities are upheld in relation to off-campus living and accommodations.

Our on-going objective is to educate and promote the safety and welfare of all students residing in off-campus housing facilities.

University Off-Campus Housing Disclaimer

The information contained in the off-campus housing list is provided as a service to students. The data collected or transcribed may at times be inaccurate. The university, its employees, or the students are not responsible for any claims or damages that may be incurred. The Off-Campus Housing and Affairs Office makes no warranty of the conditions, terms, prices or other information contained therein. This information is to be used as a guide to help students locate off-campus housing and is not to be taken as approved or sanctioned off-campus housing. This does not create an enforceable obligation to any party from California University of Pennsylvania, the Pennsylvania State System of Higher Education, or the students of California University.

International Student Office

California University views the presence of international students as having a positive impact on the entire university community. The international students provide cultural diversity and furnish the institution and the surrounding community with an expanded and enlightened perspective.

The mission of the Internal Student Office is to meet the unique needs of the international students enrolled at the University and to provide each one with a sense of belonging. In addition, the International Student Office strives to provide opportunities for the international student to experience not only the American culture, but other representative cultures as well.

The International Student Office, located in the Health Services building, is open 8 a.m. to 4 p.m.

Health Services

The Intramural Program is designed to provide students with a flexible, yet structured environment in which to participate. Activities are administered in league format with various divisions servicing men's, women's, open and co-ed recreational teams. Teams and individuals must formally register for activities. The program is open to all current students, faculty and staff. For more information contact Recreational Services, 724-938-5907.

Medical Absences

Students who are unable to attend classes because of illness should contact their professors, explain their absences, and arrange for completion of any work that may have been missed. The Health Center does not issue medical excuses, but will send a written notification to the professors only in the following circumstances, provided the student initiates the request:

- (1) If a student consults a health care professional at the Health Center, and the health care professional determines that the student has or had sufficient medical reason not to attend class (or to fulfill other academic obligations), notification will be sent to the student's professors but only if the student makes a request at that time.
- (2) If a student has consulted a private physician, who has determined that the student has or had sufficient medical reason not to attend class (or to fulfill other academic obligations), and the physician notifies the Health Center to that effect in writing, notification to this effect will be sent to the student's professors.
- (3) If a student is confined for longer treatment or care at the infirmary section of the Health Center, verification of the confinement will be sent to the student's professors. If a student is hospitalized elsewhere or requires extended recovery with bed rest, written notification should be sent from the attending physician to the Health Center, which will notify the student's professors.

Upon notification from the Health Center or any other health care professional, the professor may decide whether to consider the notification as a valid excuse from class or other academic obligations.

A professor may call the nurse supervisor of the Health Center for verification of a student's visit, but a visit can be verified only if a student was actually seen by a health professional.

The delivery of high quality health care is the heart of the Health Center. All areas of the Health Center are under strict rules of confidentiality. Medical information will be released by patient's written consent, by a properly executed subpoena, and to appropriate university offices in an emergency if knowledge of the information is necessary to protect the health and safety of the student and other individuals.

Multicultural Student Programming

The Office of Multicultural Student Programming provides programs and activities which support the ideals of a culturally diverse student population. It serves as an advocate for students from various backgrounds and offers consultation to other members of the university community when planning programs or activities.

The office of Multicultural Student Programming is located in the Center for Student Growth and Development, telephone extension 4056. Hours are 8 a.m. to 4 p.m. Monday through Friday.

Non-Traditional Student Organization

The University has a long-standing tradition of serving our region by providing educational opportunities to non-traditional students. These students may be seeking a degree following a hiatus from schooling; seeking a second degree; seeking career skills enhancement; or taking non-degree or continuing education courses. Many non-traditional students carry family and work responsibilities in addition to being students.

The Office of Student Development and Services advocates better service to non-traditional students across campus and sets an example through services and support for these students. All non-traditional students are encouraged to view the Non-Traditional Student Organization (N.S.O.) web page via the Cal U website at www.cup.edu. The N.S.O. web page provides useful information and convenient opportunities for networking and meeting other students using the computer or in person.

Recreational Services

The mission of the Department of Recreational Services is to provide recreational facilities, programs, and developmental opportunities for the university community. Recreational Services provides exposure to a variety of activities that contribute to individual physical fitness. The Department also creates opportunities for cooperative and competitive play in the game form. Recreational Services instills in participants a lifelong appreciation for physical activity as well as, enhancing the social, psychological and physiological development of the university community members it serves.

The Department is comprised of seven service areas: extramurals, fitness, informal recreation, instructional programs, intramural sports, outdoor recreation and sports clubs.

Extramural sports programming provides structured tournaments, contest and meets between participants form different institutions. The champions from intramural events are the teams or individuals competing in these programs.

Fitness programming provides opportunities and assistance to participants who wish to be involved in a personal exercise program. This voluntary program is designed to motivate individuals, assess their level of fitness, and influence their decision to maintain a positive fitness lifestyle.

Informal recreation programming provides a self-directed approach to participation. This program area accommodates the desire to participate in sport for fitness and fun, often with no pre-determined goals except that of participation.

Instructional programming provides learning opportunities, knowledge and skill through lessons, clinics and workshops. These programs are designed to enhance participant performance and enjoyment.

Intramural sports programming provides structured contests, meets, tournaments and leagues limiting participation to individual members of the university community.

Outdoor recreation programming provides participants with opportunities to interact and gain experience in a variety of natural settings.

Sport club interaction provides for individuals to organize based on a common interest in a specific sport activity. The basic nature of sport clubs allows members to direct their interest both within and outside the university setting.

Student Association, Inc.

The Student Association, Inc. (SAI) is a non-profit corporation financed in part by the Student Association Fee, which is paid each term by every student. The executive serves as the liaison between SAI and the university.

Programs provided by the Student Association, Inc., are determined by the student congress and by the Student Association, Inc., board of directors. Student Association fees are budgeted, appropriated, disbursed and accounted for by SAI with the concurrence of the president of the university.

SAI coordinates the co-curricular activities provided by the university, including homecoming, Roadman University Park, concerts, plays, musical productions, movies, outdoor recreation, the Herron Recreation and Fitness Center, intramural sports, dances, picnics, California University Television (CUTV), WVCS Radio, and other special events. Intercollegiate athletics are partially funded by SAI. In addition, SAI coordinates the activities of student clubs and organizations. The student handbook provides a complete listing of active student clubs and organizations. Publications coordinated by SAI include a student handbook, an organizational handbook, The California Times (the student newspaper), Monocal (the yearbook), and a number of brochures and pamphlets.

SAI is responsible for the development and maintenance of the George H. Roadman University Park, a 104-acre area located one mile from campus on Route 88 South. Facilities include tennis courts, baseball, football, soccer, softball, rugby, and intramural fields; picnic areas and Adamson Stadium.

Student Congress

Student congress is the official student governing body. It represents and serves the entire student population. It provides for a student forum, establishes channels for the communication of students' concerns to the proper administrative and faculty personnel, implements programs and activities that enrich campus life, and creates opportunities for students to exercise and develop leadership skills. For more information contact Edward Eagle at 724-938-4303.

Student Judicial System

The Dean of Student Development is responsible for administration of the judicial system and the conduct regulations. This office conducts pre-hearing interviews with students charged with a violation of the conduct regulations which may take place on or off campus, takes administrative disciplinary action in certain cases, conducts student/faculty judicial board hearings, maintains all university disciplinary records and serves as a resource to faculty, staff and students for disciplinary matters.

For additional information and regulations governing student life and conduct, students should refer to the current edition of the student handbook and the Rules of Conduct and Judicial Procedures handbook.

Student Service Access Center

Located on the first level of the Natali Student Center, the access center houses a Macintosh Computer Lab, the Community Service Information Outlet, and Study Around the World program resources.

The computer lab permits student access to a number of computers provided for personal use. The lab is open seven days a week (including evening hours) and remains open twenty-four hours a day during finals week. The Student Association, Inc., supports and maintains the computer lab.

Services For Students With Disabilities

Students with disabilities are provided an equal opportunity to participate in student services and activities conducted by the university. No qualified student is, on the basis of disability, excluded from participation in, denied the benefits of, or otherwise subjected to discrimination under any academic, research, occupational training, housing, health, insurance, counseling, financial aid, physical education, athletics, recreation, transportation, other extracurricular, or other post-secondary program or activity offered or sponsored by this university. Students with disabilities must provide official documentation of disabilities.

University programs and facilities are accessible to students with disabilities, and special needs of students are recognized. The Office of Services for Students with Disabilities, Room 114, Clyde Hall, provides individualized assistance to those in need. Information on disabled students services may be obtained through the coordinator of Services for Students with Disabilities, 724-938-4012.

Students in need of attendant services should contact the coordinator at the earliest practicable date.

Parking for Students with Disabilities

Numerous parking spaces have been reserved for the exclusive use of persons with disabilities who have mobility or other physical problems. These spaces are reserved for such use at all times.

Persons with disabilities who require special parking privileges must apply for a special temporary/permanent parking permit at the Office of Public Safety. Persons with disabilities desiring a permanent privilege must apply to the state Department of Transportation. Applications are available at the Office of Public Safety.

University Conference Services

California University offers a variety of summer camps and conference programs. In addition to youth camps, University Conference Services can assist in the planning of family reunions, corporate retreats, academic camps, sports camps and leadership enrichment. For more information or to inquire about University Conference Services, call 724-938-4444 or check our website at univconfsrv@cup.edu.

Veterans Affairs

The Office of Veterans Affairs, located in Johnson Hall, is open from 8 a.m. to 4 p.m., Monday through Friday. Evening hours may be arranged by appointment. The phone number for the office is 724-938-4076.

All matters pertaining to veterans and those entitled to veterans' benefits are handled in this office. The staff also processes all VA forms and enrollment certifications for eligible students.

All Veterans, Reservists, National Guard personnel, and eligible dependents applying for entrance to the university should contact the Office of Veterans Affairs at an early date so that necessary VA paperwork can be processed to assure timely payments of educational benefits. Veterans are also advised to take advantage of the University's program to award college credits for military service schools.

The on-campus Veterans Club sponsors the Colonel Arthur L. Bakewell Veterans' Scholarship Fund. Three \$1,000 scholarships are currently awarded.

Women's Center

The Women's Center in Clyde Hall is a service provided primarily for female students of the university. However, males as well as community residents are welcome to participate in the activities of the Center.

The goals of the Women's Center are to supplement the academic education of the students and to prepare them to deal with barriers in life.

Activities are designed to help female students grow and develop an understanding of how women can impact the future. Through special programs and individual counseling, the Center highlights options available to women. In addition, the Center provides programs to help students find creative ways to solve problems and manage the everchanging roles of women.

The Center recognizes the needs of women and serves as a conduit to see that the needs are addressed. The services provided are advocacy, counseling, information, interest assessment, referrals, support groups, workshops, special events and activities.

Opportunities are available for students to serve on the Advisory Board of Directors, serve on special events committees, share ideas for programs and participate in the Mentoring Program. The Women's Center, 114 Clyde Hall, is open Monday through Friday from 8: a.m. to 4 p.m. Its phone number is 724-938-5857.

WVCS (California Radio Station)

Owned and operated by the Student Association, Inc. (SAI), California University's radio station, WVCS, is a 24 hour a day, 3300 watt FM station with a coverage radius of 40 miles. WVCS typical audience member is in the 15-35 age bracket, residing in the five county region (Washington, Fayette, Greene, Westmoreland and Allegheny), with listeners in parts of Maryland and West Virginia.

WVCS, founded in the early 70's with a mission of broadcasting to the regional audience, features news, sports, public service information and the best in popular musical entertainment from a variety of genres. WVCS accomplishes this mission with student broadcasters, while providing an important educational opportunity, through hands-on experience. Since WVCS is owned by SAI, students involved with the station don't have to be Communication Studies majors. Students need only to have the desire to become involved. Students who have this interest go through a designed training program that familiarizes the student with the equipment, FCC rules and regulations, broadcasting skills and production. Students who successfully complete the training program are able to become on-air DJ's or news reporters. WVCS has an upscale, Top 40 format, with a variety of specialty shows covering all forms of music from

country to alternative. WVCS is a comfortable place to work and learn and many life long friendships have started at Power 92. All this experience makes the student extremely marketable in the field. For those involved just as an activity, the various skills translate into other majors. Besides, being a radio personality is just plain fun! Students can take a personal tour and talk in further detail about the exciting opportunities available at WVCS. Questions may be directed to 724-938-4303 or by e-mail: flores@cup.edu or wheeler@cup.edu.

FACULTY

(Date of permanent appointment to California University of Pennsylvania.)

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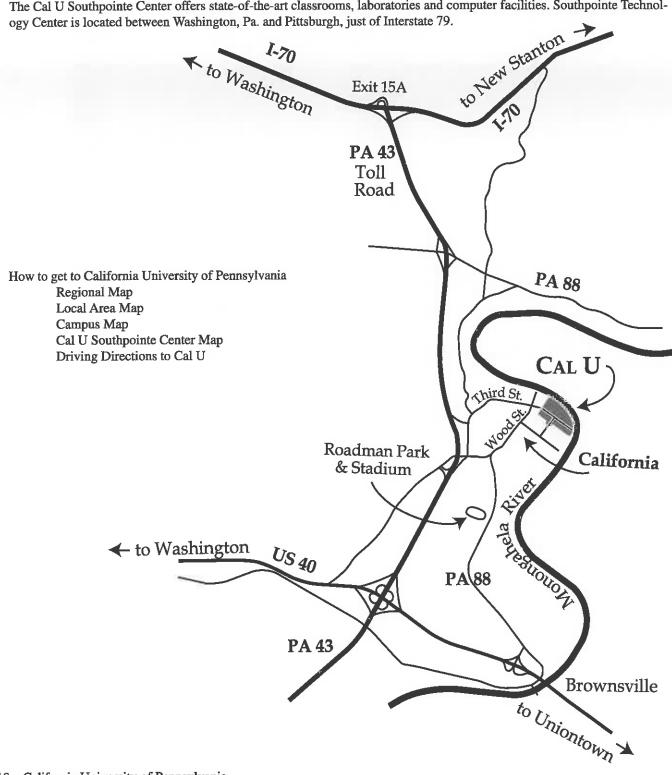
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Notes

Where is California University of Pennsylvania?

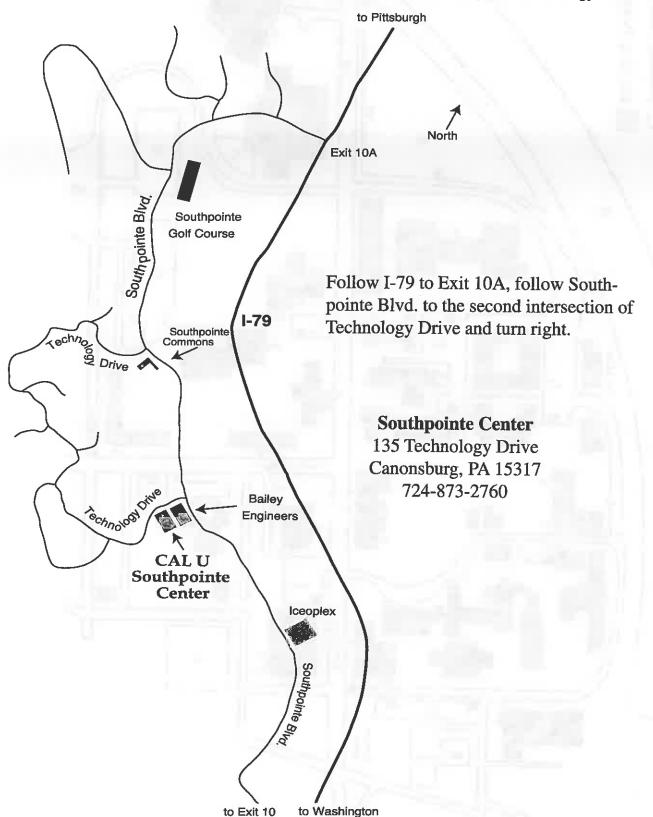
California University of Pennsylvania is nestled in a bend of the Monongahela River in Washington County. Located just 30 miles south of Pittsburgh, the campus contains 38 buildings on 80 acres. The 104-acre Roadman Park, located 1 mile from campus, contains athletic fields and courts, running facilities, and Adamson Stadium.

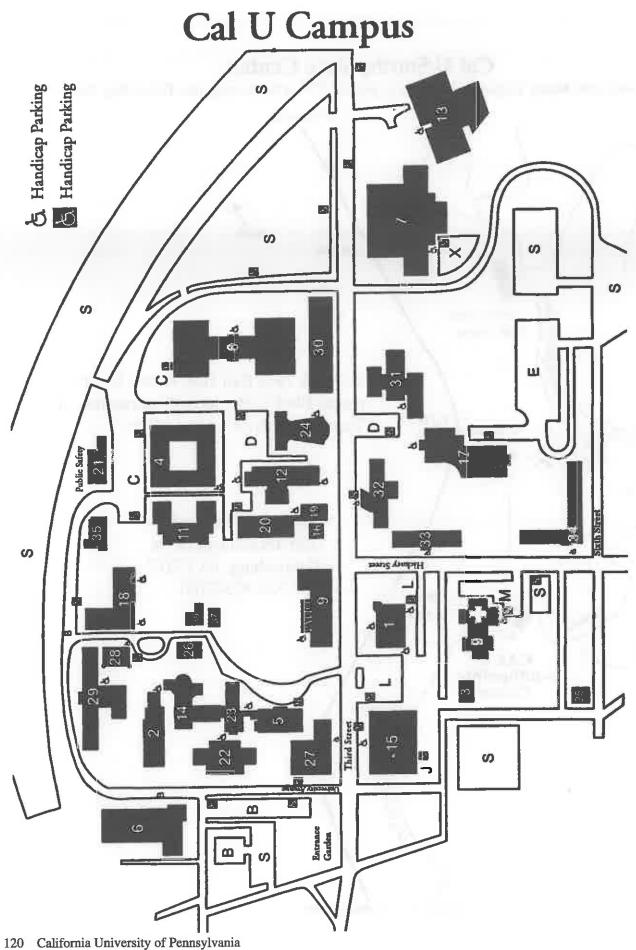
Cal U also offers classes at Southpointe Technology Center located in Canonsburg, in central Washington County. The Cal U Southpointe Center offers state-of-the-art classrooms, laboratories and computer facilities. Southpointe Technology Center is located between Washington, Pa. and Pittsburgh, just of Interstate 79.



Cal U Southpointe Center

Located in the Bailey Engineers II Building, just off I-79 in the Southpointe Technology Center





BUILDING DIRECTORY

- 1. Azorsky Administration Building
- 2. Frich Biological Science Bldg. (BSC)
- 3. Carter Black Culture Center
- 4. Coover Hall (COO)
- 5. Dixon Hall (DIX)
- 6. Eberly Science and Technology Center (EST)
- 7. Gallagher Dining Hall
- 8. Hamer Hall (HAM)
- 9. *Downey-Garofalo* Health Services Bldg. Student Growth and Development Center
- 10. Herron Fitness Center (HER)
- 11. Industrial Arts Building (IAR)
- 12. Keystone Education (EDU)
- 13. Morgan Learning and Research Center (LRC)
- 14. Main Hall (MAI)
- 15. Manderino Library (LML)
- 16. Military Science Building
- 17. Natali Student Center
- 18. New Science Building (NSC)
- 19. Noss Annex
- 20. Noss Hall (NOS)
- 21. Public Safety
- 22. Reed Arts Center
- 23. South Hall
- 24. Steele Auditorium
- 25. Student Development Annex
- 26. Vulcan Hall
- 27. Duda World Culture Building (WCU)
- 28. Watkins Academic Building (WAC)

RESIDENCE HALLS

- 29. Binns Hall (Men's Dorm)
- 30. Longanecker Hall (Men's Dorm)
- 31. Stanley Hall (Women's Dorm)
- 32. Clyde Hall (Women's Dorm)
- 33. Johnson Hall (Cal Hall Honor's Dorm)
- 34. McCloskey Hall (Men's Dorm)

OTHER BUILDINGS

- 35. Maintenance Building
- 36. Maintenance Building
- 37. Maintenance Building

PARKING AREAS

- B Faculty and Staff
- C Faculty and Staff
- D Faculty and Staff
- E Faculty and Staff
- J Faculty and Staff
- L Faculty and Staff
- M- Faculty and Staff
- S Student
- X Faculty and Staff

ACADEMIC CALENDAR 1999-2000

Fall Semester 19	,
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Spring Semester 2000

August 29	Move-In Day for Residence Hall	January 17-18	Orientation & Registration
	Students	January 19	Classes Begin
August 30-31	Orientation & Registration	January 19-22	Add Period
September 1	Classes Begin	February 29	Last Day to Drop a Course or With- draw from the University without
August 30-			Academic or Financial Aid Penalty
September 4	Add Period	March 13-18	Spring Break (no classes)
September 6	Labor Day (no classes)	April 21-22	Easter Break (no classes)
October 12	Last Day to Drop a Course or With-	1	
	draw from the University without Academic or Financial Aid Penalty	April 20	Last Day to Drop a Course or With- draw from the University
November 23	Last Day to Drop a Course or With-	May 13	Semester Ends
	draw from the University	May 13	Commencement
November 24-28	Thanksgiving Break (no classes)	,	
		May 15	Grades Due from Faculty
December 18	Semester Ends		
December 20	Grades Due From Faculty		

Summer Sessions 2000

May 15	May Session Classes Begin
May 29	Memorial Day (no classes)
June 5	First Five Week/Ten Week Summer Sessions Begin
July 4	Fourth of July Holiday (no classes)
July 8	First Five Week Summer Sessions End
July 10	Second Five Week Summer Sessions Begin
August 12	Second Five Week/Ten Week Summer Sessions End

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