



BLOOMSBURG UNIVERSITY

Graduate Catalog

1985-86



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BLOOMSBURG UNIVERSITY



GRADUATE

CATALOGUE

1985-1986

(prepared June 1985)

**Statement of Non-discrimination
Policy**

Bloomsburg University is committed to providing equal educational and employment opportunities to all persons without regard to race, color, religion, sex, age, national origin, ancestry, life style, affectional or sexual preference, handicap, Vietnam era veteran, or union membership. The University is additionally committed to Affirmative Action and will take positive steps to provide such educational and employment opportunities. Inquiries may be directed to:

Director of Affirmative Action
Bloomsburg University
Bloomsburg, PA 17815
717-389-4526

ADMINISTRATIVE PERSONNEL

- HARRY AUSPRICH *President*
 B.S., New York State University College at Buffalo; M.S., University of Wisconsin;
 Ph.D., Michigan State University.(1985)
- LARRY W. JONES *Provost and Vice President for Academic Affairs*
 B.S., M.S., North Dakota State University; Ed.D., University of Oregon; I.E.M.,
 Harvard University.(1981).
- DANIEL C. PANTALEO *Dean of the College of Graduate Studies and Extended Programs*
 B.S., Manhattan College; Ph.D., Emory University.(1977)

GRADUATE COUNCIL

- HAROLD J. BAILEY, Professor *Mathematics and Computer Science*
- RONALD CHAMPOUX, Associate Professor *Communication Disorders and Special Education*
- JAMES E. COLE, Associate Professor *Biological and Allied Health Sciences*
- G. ALFRED FORSYTH *Dean, College of Arts and Sciences*
- C. THOMAS GAY, Graduate Student *Biological and Allied Health Sciences*
- FREDERICK C. HILL, Associate Professor *Biological and Allied Health Sciences*
- ANDREW KARPINSKI, Professor *Communication Disorders and Special Education*
- HOWARD MACAULEY, JR. *Dean, College of Professional Studies*
- A. J. MCDONNELL, Associate Professor *Curriculum and Foundations*
- NANCY A. ONUSCHAK, Associate Professor *Nursing*
- DANIEL PANTALEO *Dean, College of Graduate Studies and Extended Programs*
- EDWARD POOSTAY, Associate Professor *Curriculum and Foundations*
- JOHN E. DITTRICH *Dean, College of Business*
- RILEY SMITH, Associate Professor *English*
- J. CALVIN WALKER, Professor *Psychology*

TENTATIVE GRADUATE CALENDAR 1985-1986 ACADEMIC YEAR

1985—FALL SEMESTER

| | |
|--------------|---|
| August 23— | Final date of graduate registration for Fall Semester |
| September 3— | Classes begin for Fall Semester |
| October 1— | Final date for submitting Application for December graduation |
| November 27— | Thanksgiving recess begins at 1:50 p.m. |
| December 1— | Thanksgiving recess ends -- classes resume (8 a.m.) |
| December 13— | Final date for completion of Master's Thesis, Departmental Paper, and/or Comprehensive Examinations |
| December 21— | End of Fall Semester |
| December 22— | Commencement |

1986— SPRING SEMESTER

| | |
|-------------|---|
| January 3— | Final date of graduate registration for Spring Semester |
| January 13— | Classes begin for Spring Semester |
| January 31— | Final date for submitting Application for May graduation |
| March 22— | Spring recess begins at 4 p.m. |
| March 31— | Spring recess ends—classes resume at 6 p.m. |
| May 2— | Final date for completion of Master's Thesis, Departmental Paper, and/or Comprehensive Examinations |
| May 10— | End of Spring Semester |
| May 10— | Commencement |



THE UNIVERSITY

Bloomsburg University is known for its sound academic programs, beautiful physical plant and caring attitude.

Overlooking the Town of Bloomsburg and the Susquehanna River Valley, the university offers study toward degrees in 65 programs which cover the spectrum of arts, sciences, education and business. The university holds several national and regional accreditations of its academic programs. Among support for the academics are more than 300,000 bound volumes in the Harvey Andruss Library, an FM radio station, a television studio, reading and speech clinics and more than a hundred micro-computers and remote terminals.

All 367 faculty members are dedicated to academic excellence. Many hold the highest professional degree available in their discipline. Outside the classroom setting, the 6,300 students find themselves, at one time or another, meeting with faculty for personalized instruction, academic advisement and/or counseling. Students also participate in other learning experiences as internships, work-study or cooperative education programs.

With 28,000 alumni in professions ranging from education to medicine, Bloomsburg University has an outstanding graduate placement rate. Well-kept grounds and the caring attitude displayed by university personnel contribute to the above national retention rate.

Low cost for a high-quality education is another Bloomsburg University attribute. Tuition averages \$1,500 a year. However, scholarships, grants, loans and other financial aid awards are made to more than 80% of the university's student body.

Operating on an annual budget of approximately \$34 million, the university generates nearly half of its funds via grants, gifts, fees and auxiliary programs. The other support comes from the Commonwealth of Pennsylvania under the auspices of the State System of Higher Education--a 14-member university system.

Completing the total picture at Bloomsburg are cultural enrichment programs, athletics and other extracurricular activities.

The university is located within two miles of Exit 35 of Interstate 80. It is within a few hours of several major cities, including New York, Philadelphia and Washington, D.C. The Pocono resort areas and several other points of interest are within an hour's drive from Bloomsburg University.

1. GENERAL INFORMATION

1.1 MISSION AND PURPOSE

The School of Graduate Studies provides a variety of quality post-baccalaureate programs for students seeking to expand their educational background and training. Programs are provided in scholarly and professional education to meet the needs of society and the educational goals of students. To accomplish these objectives, the School seeks to:

1. provide programs of graduate study in the arts, humanities, sciences and professions to enhance students' capacity for creative problem-solving, critical thinking and application of knowledge to improve the quality of life.

2. provide access to graduate education for students who wish to study on a part-time basis while living and working in the community as well as those who wish to pursue advanced study full-time.

3. provide programs of graduate study for students who are seeking to prepare and qualify for professional status.

4. provide graduate education which enables students to prepare and pursue the liberal arts and sciences.

5. provide graduate programs which augment the students' applied skills and knowledge.

6. provide needed programs and services for individuals and agencies within the university's service community.

7. plan graduate programs to meet developing and future needs of society and the educational goals of its students.

1.2 LOCATION

The Town of Bloomsburg, county seat of Columbia County, is an industrial, trading and residential community of 11,000 located on Route 11, 80 miles north of Harrisburg. It is within two miles of two interchanges of Interstate 80.

Bloomsburg is served by the Greyhound and Continental Trailways bus lines. Commercial airports are accessible at Wilkes-Barre/Scranton on Route 81, and at Williamsport; each is about an hour's drive from Bloomsburg.

1.3 ACCREDITATION

Bloomsburg University is accredited by the National Council for Accreditation of Teacher Education, the Middle States Association of Colleges and Secondary Schools, American Chemical Society, the American Speech, Hearing and Language Association and the National League of Nursing. Its graduate programs have been approved by the Pennsylvania State Department of Education.

1.4 LIBRARY

The university library is named in honor of Dr. Harvey A. Andruss, president of the college from 1939 to 1969. The library is centrally located on the campus among the Hartline Science Center, the Bakeless Center for the Humanities and the James H. McCormick Center for Human Services. More than 300,000 bound volumes and one million microtexts are housed in the facility. The building accommodates 400 readers and provides subscriptions to 1,382 periodicals. A 375-volume rare book collection is also housed in the library. The library is also equipped to provide literature searches using an online data base system.

The university provides extensive media services through the Learning Resources Center currently housed in the library. Located in the James H. McCormick Center for Human Services, the center offers state-of-the-art technology for instruction and media production.

1.5 LIVING ACCOMMODATIONS

Residence halls are open to graduate students during summer terms. Requests for information concerning residence hall accommodations may be secured from the Director of Housing. Meals are available to graduate students in Scranton Commons. The Housing Office maintains a listing of housing available in the Bloomsburg Community.

1.6 FEES AND REFUNDS

(Fees are subject to change without notice)

Application Fee

Payable upon application for admission to graduate courses—not refundable—\$15.00.

Basic Fee:

Residents of Pennsylvania—per semester hour—\$87.

Out-of-State Students—per semester hour—\$92.

Late Registration Fee—\$10

Activities Fee (optional)

Summer Term—Six weeks session—\$9, three week session—\$4.50.

Student Community Building Fee

1-4 semester hours—\$2.50, 5-8 semester hours—\$5, 9 or more semester hours—\$10.

Student Health Service Fee

0-5 semester hours—no charge, 4-8 semester hours—\$8.50, 9 or more semester hours—\$17.

Graduation and Diploma Fee

(Does not include rental fee for academic costume)—\$10.

Refunds for basic fees will be based on the following schedule if applicable after the first full class day.

| | | | | |
|---------------------|---------|---------|---------|---------------|
| 1st through 2nd wk. | 3rd wk. | 4th wk. | 5th wk. | after 5th wk. |
| 80% | 70% | 60% | 50% | No Refund |

1.7 FINANCIAL ASSISTANCE

Graduate assistantships are available to students through the department in which the student wishes to study. These assistantships provide a waiver of tuition and a modest stipend. Contact the department of interest for information on graduate assistantships.

Some federal fellowships may be available in selected areas as well as assistance under the Pennsylvania Higher Education Assistance Agency Loan Program. Student work study funds are also available to graduate students. Information regarding these programs is available from the Office of Financial Aid.

1.8 PLACEMENT

Graduate students are eligible to use the services of the Placement Office after they have been accepted as candidates for a master's degree.

1.9 TRANSCRIPTS

Graduate transcripts must be requested through the Office of Graduate Studies either by letter or by completing the transcript request form available in the Office of Graduate Studies. All transcripts are \$2 per copy.

Note: The transcript process is being handled by the Registrar's Office. Please inquire as necessary as to where transcript requests are to be sent.

1.10 AUDITING GRADUATE COURSES

Individuals who complete the regular application procedure may choose to audit a graduate course for purposes of self-improvement. No tests or class discussion are required for auditing a graduate course. However, the approval of the graduate dean is required. Also, full fee payment is required. (See Section 1.6 Fees and Refunds.) Upon completion of the graduate course, a grade of "V" is recorded on the transcript.



2. ACADEMIC POLICIES

2.01 STUDENT RESPONSIBILITY

It is the student's responsibility to satisfy the requirements for graduation in his/her curriculum and to observe the academic regulations of the Graduate School. Although the adviser and the staff of the Graduate School stand ready to aid the student in his/her decision making, the final responsibility rests with the student.

2.02 DEGREES

The Master of Education degree was established in 1960. Its programs are planned for teachers in service.

The first Master of Arts program (history) was established in 1968 and the first Master of Science program (biology) in 1971.

A program to lead to the professional degree Master of Business Administration (MBA) was instituted in 1976.

The purpose of programs for the professional degree, Master of Education, is to enhance the competence of teachers. The purpose of a Master of Arts program is to advance the student's scholarship in an academic discipline, and that of a Master of Science program is to develop mature scholarship and competence related primarily to application. Bloomsburg offers numerous programs of study leading to master's degrees.

2.03 TIME LIMIT

All requirements for a master's degree, including any courses accepted by transfer, must be completed within six calendar years. This period may be extended for sufficient reason. Written application for extension must be made to the dean of Graduate Studies with written approval of the student's adviser prior to the end of the six-year period.

2.04 SCHEDULE OF CLASSES

Graduate classes taught in the regular academic year are usually scheduled in late afternoons, evenings and Saturdays in order to provide opportunity for teachers and individuals engaged in other full-time occupations to further their education. Graduate courses are offered in the summer sessions in regular daytime classes.

2.05 ADMISSION TO GRADUATE COURSES

Admission to graduate courses is granted upon: the filing of a formal application for admission, submitting of credentials which certify a baccalaureate degree from an accredited college with a quality point average of 2.0 or higher (A=4), and payment of a non-refundable application fee of \$15.

Admission to graduate courses does not bind the university to admit the student to candidacy for a master's degree. The regulations governing admission to candidacy are stated in Section 2.22.

A temporary permit to register for an off-campus course as an adjunct student without formal admission to graduate courses may be granted to a college graduate by the Dean of Graduate Studies.

2.06 CATEGORIES OF GRADUATE STUDENTS

An individual who has satisfied the requirements for admission to graduate courses is classified in one of five categories as follows:

CATEGORY I (510)

Category 510 comprises students who do not express an intention to become candidates for a master's degree in one of the programs for which a degree or certificate is authorized, or who have been transferred to this category from other categories as stipulated herein.

Students in Category 510 may apply for transfer to Category 530 or Category 540. Not more than 12 semester hours taken as a student in Category 510 may be applied toward a master's degree unless a special dispensation is granted by the dean of Graduate Studies.

A student may choose to remain indefinitely in Category 510 (for example, a student interested only in certification credit).

CATEGORY II (520)

This category comprises graduate students who in their application for admission indicated an intention to pursue a master's degree program but whose undergraduate record showed a quality point average lower than 2.25. If a student in this category makes an average of 3.0 or higher in the first six to nine semester hours of graduate study at Bloomsburg University, he/she is eligible for transfer to Categories 530 or 540; otherwise, the student is transferred to Category 510 after nine semester hours have been completed.

CATEGORY III (530)

Category 530 comprises individuals other than those in Category 520 who indicated an intention to pursue an existing master's degree program and who have not yet been certified as clear of undergraduate deficiencies. Transfer to Category 540 is automatic when the adviser certifies to the graduate dean that there are no undergraduate deficiencies to be made up for the chosen program, or when previously identified deficiencies have been successfully completed.

CATEGORY IV (540)

This category comprises graduate students who have no undergraduate deficiencies for the master's degree programs which they are pursuing. A student must be in Category 540 in order to be eligible to apply for admission to candidacy for a master's degree. A student in Category 540 who has not attained admission to candidacy after completing 12 semester hours of graduate work is transferred to Category 510 unless an extension of time has been granted by the dean of Graduate Studies. The request for extension of time must certify that the delay was the result of circumstances beyond the control of the student and must be endorsed by the student's adviser.

CATEGORY V (550)

This category comprises students who have been admitted to candidacy for a master's degree. An individual in Category 550 is transferred to Category 510 if his cumulative quality point average falls below 3.0, or if he has not completed his program within the time limit (see Section 2.03).

2.07 ADVISEMENT OF GRADUATE STUDENTS

Graduate students in Categories 520, 530, 540 and 550, and in the Supervisory Certificate Program, are assigned to advisers. The duties of the adviser of a graduate student are: to serve as consultant in the planning of the student's program and in his/her choice of courses; to certify approval of the course as part of the student's degree program; to endorse the student's application for degree candidacy; to arrange for a comprehensive examination if it is required by the program.

The adviser is appointed by the dean of Graduate Studies upon recommendation of the department of the proposed specialization.

An interview with the adviser is required prior to first registration for graduate courses and prior to each subsequent registration.

Students in Category 510 are not assigned to advisers. They submit their registration materials directly to the Office of the dean of Graduate Studies. They may regard the Dean of Graduate Studies as an adviser in case assistance is needed in choosing courses or in interpreting academic regulations.

2.08 CREDIT

Credit is measured in semester hours at the rate of one semester hour for 15 hours of lecture-discussion work plus final examination.

2.09 SEMESTER HOUR LOAD

During a period in which he/she is engaged in full-time employment, an individual may enroll in a maximum of six semester hours in a given semester. Overloads are permitted only upon approval by the dean of Graduate Studies. Approval is given only in the most unusual circumstances.

The maximum load for a full-time student in a semester is 12 semester hours.

In terms other than regular semesters, the maximum is determined at the rate of one semester hour per week of full-time course work.

The normal load of a graduate assistant on full stipend is six to nine semester hours; that of a graduate assistant on half stipend is nine to 12 semester hours. No overload is permitted.

2.10 NUMBERING OF COURSES

Courses numbered 500 or higher are open only to graduate students. Courses numbered below 500 and listed in this bulletin are open also to advanced undergraduates. The number of credits in such courses which may be applied to a degree is limited to twelve semester hours. It is understood that graduate students enrolled in these courses will exhibit work of graduate calibre in their independent study and their papers.

2.11 TRANSFER OF CREDIT

A maximum of six semester hours in graduate courses taken in other approved colleges may be credited toward a master's degree. The transferred courses must have been taken in residence; they must cover content which is required in the student's program or recommended by the adviser for elective credit; they must have grades of B or higher. In case a course has been taken on a branch campus of a university, it will be construed as a residence course if full-time graduate students are accommodated to take a degree program on that campus. The student must request permission of the dean of the Graduate School with written approval of his/her adviser for transfer of credits into the graduate program.

2.12 REGISTRATION FOR GRADUATE COURSES

Students register for graduate courses through the Office of the dean of Graduate Studies.

2.13 ATTENDANCE AT CLASSES

A student who is absent from a graduate class for a reason which can be verified as urgent is entitled to a reasonable amount of assistance from the professor in making up the work which was missed. This includes permission to make up an examination given the class during his/her absence and the late submitting of assignments that were

due during the period of absence. It is the student's responsibility to provide the verification if requested when applying for the privilege of making up the work missed.

2.14 WITHDRAWALS

A graduate student may withdraw from a course by applying to the dean of Graduate Studies. If withdrawal is requested prior to the date established by the registrar as the midpoint of the semester, the grade in the course is W. If withdrawal is initiated later, the grade is W if the student is currently passing the course; otherwise the grade is E.

The official date of withdrawal used in computing a grade and in determining a refund is the date of the latest class meeting prior to the filing of the withdrawal request in the Office of the Dean of Graduate Studies.

2.15 EXAMINATIONS

The Miller Analogies Test is required of each student before he/she may be admitted to candidacy for a Master's degree. (Candidates for the Master of Business Administration degree must take the Graduate Management Admissions Test). The time and place of the examination may be learned upon inquiry to the dean of Graduate Studies.

A comprehensive examination in the specialization may be set by the department as a degree requirement.

An examination in defense of a master's thesis is usually required of students who choose to write a thesis.

2.16 MASTER'S THESIS

If a master's thesis is included in the student's program, a committee is appointed by the dean of Graduate Studies from individuals nominated by the student's adviser. The committee is responsible for guiding the study, certifying approval of a written report both in form and content, arranging for the defense, certifying satisfactory completion of the thesis and determining the grade.

Three bound copies of the thesis must be filed with the dean of Graduate Studies.

The student is responsible for following all of the thesis procedures specified in a special bulletin which may be obtained in the Graduate Office.

Where the requirements for a concentration for a master's degree include a departmental paper, such a paper is interpreted as one which grows out of a course and therefore does not require special registration nor carry its own credit. Completion of a departmental paper must be certified by the adviser as a part of the application for graduation.

2.17 GRADUATE COURSES IN THE SENIOR YEAR

A senior who is registering for the semester (or summer term) in which he/she will complete the requirements for a baccalaureate degree and who requires less than 15 semester hours (six semester hours in case of six week summer term or 12 semester hours in case of a two consecutive six week summer terms) may supplement the requisite undergraduate courses with graduate courses provided the total of undergraduate and graduate courses does not exceed the normal loads as stated herein.

The recommendation of the student's undergraduate adviser, including his/her certification that the undergraduate courses listed will complete the baccalaureate requirements, must accompany the application for admission to graduate courses. The student must pay the graduate application fee.

The graduate credit earned in this term is held in reserve until the baccalaureate degree has been completed.

2.18 GRADUATE ASSISTANTSHIPS

A limited number of graduate assistantships are available for full-time graduate students. Application is made to the department in which the service would be performed.

The maximum amount which may be earned by a graduate assistant in one year is \$2,705. Appointments are made either for this maximum sum or one-half of this sum. The graduate assistant on full stipend is responsible for 11 to 20 hours per week of service. The graduate assistant on half stipend is responsible for 5 to 10 hours per week of service.

2.19 GRADES AND AVERAGES

Grades given for graduate courses are:

A—Distinguished; scholarly work which exhibits independence and intellectual maturity. (4 quality points)

B—Good (3 quality points)

C—Fair; acceptable toward a master's degree program within limits. (2 quality points)

D—Not acceptable in a degree program (1 quality point)

E—Failing (0 quality points)

I—Incomplete; work must be completed within four months unless the period is extended by the dean of Graduate Studies for adequate reason. If the work is not made up, the grade is changed to N and the student is denied further opportunity to complete the work.

RI—Removal of Incomplete grade.

N—No grade; no credit.

R—Research in Progress.

W—Withdrawn with approval of the Dean. The regulations governing the grade of W are described in the paragraph on withdrawal.

V—Audit.

CR—Course repeated.

The Cumulative Quality Point Average (QPA) is computed by the following process: (1) Multiply the number of quality points for each grade of A, B, C, D, or E in a graduate course taken at the university by the number of semester hours for the courses; (2) add these products; (3) divide by the sum of the semester hours for all grades which entered the computation. When a course has been repeated, only the last entry is used.

2.20 REPEATING COURSES

No course may be repeated more than once. (See section 2.19 for effect on the quality point average.)

2.21 ACADEMIC STANDARDS

Each program that leads to a Master's degree requires a minimum of 30 semester hours of graduate credit. Credit for courses with grades below C is not accepted toward the requirements for the degree.

The student's cumulative quality point average at time of admission to candidacy and for graduation must be a 3.0 or higher.

2.22 ADMISSION TO CANDIDACY FOR A MASTER'S DEGREE

Admission to Candidacy for a master's degree is subject to the following conditions:

- (1) The student must be in Category 540 (see Section 2.06).
- (2) Transcripts of all undergraduate and previous graduate study must be on file in the Office of the Dean of Graduate Studies.
- (3) The Graduate Qualifying Test (Miller Analogies Test) must have been taken with a satisfactory score. (Master of Business Administration students must have successfully completed the Graduate Management Admissions Test.)
- (4) The student must file an application for Admission to Candidacy with the Dean of Graduate Studies after nine semester hours (or immediately after 12 semester hours) of the proposed program. Under certain circumstances the dean may approve an extension of time. The application must be endorsed by the student's adviser; the endorsement presumes that the adviser has had adequate opportunity to formulate judgment about the student's ability, and recommends candidacy.
- (5) A student who is applying for candidacy for the Master of Education degree must have filed with the dean of Graduate Studies evidence of possession of a valid teaching certificate.

In case enrollment in a curriculum or in certain required courses thereof is restricted due to limited capacity, and a priority for admission has been established, the adviser may inform an advisee who is making satisfactory progress that endorsement of his application for Admission to Candidacy is being deferred until space can be assured. It is the responsibility of the student to inform the dean of Graduate Studies of the reason for the delay in filing the application.

2.23 THE MASTER OF EDUCATION DEGREE

The Master of Education Degree is offered in:

Biology

Business Education

Earth Science

Elementary Education

Mathematics Education

Reading

Three courses in the School of Education are required for the degree:

| | | |
|---------------|---|-------------------------|
| 60.501 | MAJOR PHILOSOPHIES OF EDUCATION | 3 semester hours |
| 60.591 | FOUNDATIONS OF EDUCATIONAL RESEARCH | 3 semester hours |
| | Elective course to be chosen with the approval of the program adviser. | |

In addition to the above basic courses, the candidate must complete a specialization of at least twenty-one semester hours for a minimum of thirty semester hours. The requirements for the specializations are stated in the appropriate sections on course descriptions.

2.24 THE MASTER OF ARTS, MASTER OF BUSINESS ADMINISTRATION AND MASTER OF SCIENCE DEGREES

The Master of Arts degree is offered in art studio, art history and communication.

The Master of Business Administration degree is offered in business administration.

The Master of Science degree is offered in biology, communication disorders (audiology, speech pathology and education of the hearing impaired), early childhood education, special education, (behavior disorders, learning disabilities, mental retardation, gifted/talented, exceptional persons), nursing and instructional technology.

The requirements for each major are described in the corresponding department's section of course descriptions.

For admission to candidacy for the M.A., M.Ed., M.B.A. and M.S. degrees, see Section 2.22.

2.25 SUPERVISORY CERTIFICATE PROGRAM

The objectives of the Supervisory Certification Program are related to the duties generally performed by first line supervisors, department chairpersons, coordinators, and directors of programs. The program is designed to develop supervisors who will be able to provide instructional leadership and work effectively with professionals and non-professionals in directing the activities of a given field (See Supervision section of this Bulletin). Programs leading to certification are offered in the following areas:

| | |
|-----------------------------------|---------------------------------------|
| Supervisor Communication | Supervisor Curriculum and Instruction |
| Supervisor School Health Services | |
| Supervisor Early Childhood | Supervisor Science |
| Supervisor Elementary Education | Supervisor Social Studies |
| Supervisor in Foreign Languages | Supervisor in Special Education |
| Supervisor Mathematics | Supervisor Reading* |

Penn State University, in affiliation with Bloomsburg University, offers approved programs leading to Pennsylvania certification of vocational educators as supervisors of vocational education and as directors of vocational education. Courses in business education may be taken at Bloomsburg University through the Department of Business Education and Office Administration.

2.26 MASTER'S DEGREE EQUIVALENCE CERTIFICATE

The Commonwealth of Pennsylvania makes available a Master's Degree Equivalence Certificate (significant for salary purposes only) upon evidence that the applicant has completed graduate courses in accordance with requirements stated in a bulletin which may be secured from the Bureau of Teacher Certification in the Department of Education.

The university welcomes teachers who wish to use its resources to fulfill the course requirements for the certificate. No formal program is constructed for this purpose and no responsibility is assumed by the university, however, students are invited to consult the dean of Graduate Studies when selecting courses for this purpose. Students who wish to take courses for this purpose are classified in Category 510.

2.27 GRADUATION

It is the responsibility of the student to apply for graduation not later than the final date stated in the official graduate calendar. A form to apply for graduation may be secured at the Graduate Office.

The dates for completion of thesis and department papers, comprehensive examinations, defense of thesis, payment of graduation fees (and binding fees if applicable) are also listed in the official graduate calendar. The dates provide minimum time necessary to compile graduation lists, order diplomas and academic costumes and complete other necessary details.

A student who files an application for graduation after the specified date will be included in the first subsequent commencement; however, a student is eligible upon completion of all degree requirements to receive a letter certifying that the requirements for the degree have been completed and stating the date upon which the degree is to be formally conferred.



3. INTER-DISCIPLINARY STUDIES

Inter-disciplinary courses listed in this section are planned by more than one department. The courses are sometimes taught by teams of faculty members. The student should consult his/her adviser to determine the appropriateness of these courses for a particular degree program.

COURSES

(Code 09)

09.401 HISTORY AND POLITICS OF THE USSR

3 semester hours

This course seeks to give students sufficient background in history and political science to enable the student to better understand the USSR. It will provide them with some of the major developments in the Soviet Union since 1917 in order to make contemporary affairs in that country more understandable. Combining lectures, films, slides, outside speakers, readings and discussion it will serve to give them sufficient background to more readily evaluate what they will experience while in the USSR.

09.427 SOCIALISM: THEORY AND HISTORY

3 semester hours

A survey of socialist philosophies from Biblical times to present concentrating on the theories of Marx, Engels, Lenin and Mao and including review of the major historical events surrounding socialist development.



4. COLLEGE OF ARTS AND SCIENCES

4.1 HUMANITIES

LANGUAGES AND CULTURES

COURSE DESCRIPTIONS

FRENCH

(Code 10)

- 10.500 (514) SYNTAX** **3 semester hours**
 Systematic review of advanced French grammar.
- 10.501 LINGUISTICS** **3 semester hours**
 An introduction to the study of language as a science. A history of the French language. The application of the science of linguistics to the teaching of French.
- 10.502 (514) STYLE AND STYLISTICS** **3 semester hours**
 Acquisition of accuracy in written compositions and intensive analysis of selected modern prose work.
- 10.503 (513) ADVANCED FRENCH PHONETICS** **3 semester hours**
 Study of the sounds of French through the application of the international phonetic alphabet. Laboratory drills and recordings.
- 10.504 ORAL EXPRESSION** **3 semester hours**
 Acquisitions of fluency in speech on contemporary usage. Oral reports, guided discussions and explication de textes.
- 10.505 ADVANCED STRUCTURE AND TRANSLATION** **3 semester hours**
 Contrastive analysis of French and English patterns; problems of translation; practice in French-English and English-French translations.
- 10.506 FRENCH LANGUAGE WORKSHOP** **3 semester hours**
 Discussion of methodology and techniques. Preparation of pattern drills and oral tests. The function of laboratories. Analysis of current textbooks.
- 10.510 CONTEMPORARY FRENCH CIVILIZATION** **3 semester hours**
 Life, institutions and culture of contemporary France. Readings in current newspapers and magazines. France's contributions to Western civilization.
- 10.515 CULTURE AND CIVILIZATION THROUGH HISTORY** **3 semester hours**
 People, institutions, forces and ideas which have shaped France throughout the centuries.
- 10.520 HISTORY OF IDEAS AND LITERARY CURRENTS** **3 semester hours**
 Study of major philosophic and literary movements and impact upon literature and culture of France.
- 10.530 (539) TECHNIQUES IN LITERARY CRITICISM** **3 semester hours**
 Use of bibliographical aids in research. Acquaintance with the various critical approaches to the study and appreciation of literature.
- 10.540 SEMINAR IN MEDIEVAL AND RENAISSANCE LITERATURE** **3 semester hours**
 Exploration of particular authors, certain genres or special topics.
- 10.550 SEMINAR IN 17TH AND 18TH CENTURY LITERATURE** **3 semester hours**
 Exploration of particular authors, certain genres or special topics.
- 10.560 SEMINAR IN 19TH AND 20TH CENTURY LITERATURE** **3 semester hours**
 Exploration of particular authors, certain genres or special topics.
- 10.590 INDEPENDENT STUDY** **1-9 semester hours**
 Individual study of a particular aspect of French civilization, language or literature under the supervision of a graduate faculty member. Upon special circumstances and student needs. Consult Department Chairperson.

10.597 STUDIES ABROAD 3-6 semester hours
College-organized programs abroad.

10.598 SPECIAL PROBLEMS 3. semester hours
Areas of French language or literature allowing the student to cover a particular aspect under special circumstances. May be used as remedial course in case of undergraduate deficiencies, in which case it will not count toward a degree. May be repeated.

GERMAN
(Code 11)

An introduction to the development of the German language from its beginning to the present day.

11.501 ADVANCED GERMAN LANGUAGE 3 semester hours
Advanced grammar, syntax and composition.

11.502 (514) STYLE AND STYLISTICS 3 semester hours
Modern prose selections illustrating contemporary German usage.

11.505 ADVANCED TEXTS IN "NACHERZAHLEN" AND TRANSLATION 3 semester hours
Texts given for oral and written mastery; translation exercises from English into German.

11.506 GERMAN LANGUAGE WORKSHOP 3 semester hours
Review of present-day methods and materials for teaching.

11.510 CONTEMPORARY GERMANY 3 semester hours
The economic, political, social and cultural aspects of East and West Germany since World War II.

11.511 GERMAN CULTURE 3 semester hours
A historical and cultural presentation of the contributions of the German-speaking world.

11.525 CONTEMPORARY GERMAN LITERATURE 3 semester hours
German literature since World War II.

11.526 MODERN GERMAN LITERATURE 3 semester hours
German literature from the latter part of the 19th Century to World War II.

11.535 (521-522) GOETHE AND SCHILLER 3 semester hours
The cultural, literary and aesthetic contributions of Goeth and Schiller to modern German.

11.536 THE ROMANTIC MOVEMENT 3 semester hours
The early Romantic poets and their works. Das Marchen and Das Marchenhafte in German literature.

11.570 (560) RESEARCH PROJECT 3 semester hours
A topic, to be written in German, on a cultural or literary theme.

11.597 STUDIES ABROAD 3-6 semester hours
College-organized programs abroad.

11.598 SPECIAL PROBLEMS 3 semester hours
Areas of German language or literature allowing the student to cover a particular aspect under special circumstances. May be used as remedial course in case of undergraduate deficiency, in which case it does not count toward a degree. May be repeated.

SPANISH
(Code 12)

12.421 SEMINAR IN SPANISH LITERATURE 3-6 semester hours
Study of a particular genre, movement, period work or author. May be repeated once for a total of six semester hours.

12.423 SEMINAR IN SPANISH AMERICAN LITERTURE 3-6 semester hours
Study of a particular genre, movement, period, work or author. May be repeated once for a total of six semester hours.

- 12.502 ADVANCED STUDY OF SPANISH STYLISTICS** 3 semester hours
Study of Spanish grammar stressing creative written expression in the language.
- 12.503 ADVANCED SPANISH PHONETICS** 3 semester hours
Study of the sounds of Spanish with some remarks on regional differences. Designed to develop mastery of correct pronunciation and intonation of Spanish. Laboratory drills and recordings.
- 12.504 (501) ORAL EXPRESSION** 3 semester hours
Acquisition of fluency in speech, based on contemporary usage. Oral reports and guided discussions.
- 12.505 ADVANCED STRUCTURE AND TRANSLATION** 3 semester hours
Contrastive analysis of Spanish and English patterns. Spanish syntax. Problems of translation. Practice in Spanish-English and English-Spanish translation.
- 12.506 (551) SPANISH LANGUAGE WORKSHOP** 3 semester hours
Discussion of methodology and techniques. Preparation of pattern drills and oral tests. The functions of laboratories. Analysis of current textbooks.
- 12.510 PENINSULAR CIVILIZATION** 3 semester hours
Panoramic view of peninsular civilization through discussion, realia and selected texts. Outside readings in Spanish.
- 12.511 SPANISH AMERICAN CIVILIZATION** 3 semester hours
Panoramic view of Spanish American civilization through discussion, realia and selected texts. Outside readings in Spanish.
- 12.530 (533) CERVANTES** 3 semester hours
Study and analysis of the life and works of Cervantes. Emphasis on the *Quijote*.
- 12.534 (541) GENERATION OF 98** 3 semester hours
Study and analysis of the major writers of the period such as Azorin, Unamuno and Baroja.
- 12.535 SEMINAR IN MEDIEVAL PENINSULAR LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.
- 12.536 SEMINAR IN 16TH AND 17TH CENTURY PENINSULAR LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.
- 12.537 SEMINAR IN 18TH AND 19TH CENTURY PENINSULAR LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.
- 12.538 SEMINAR IN 20TH CENTURY PENINSULAR LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.
- 12.540 (542) MODERNISM** 3 semester hours
Study and analysis of the Modernist movement in poetry and prose, with particular emphasis on Ruben Dario.
- 12.544 LITERATURE OF THE MEXICAN REVOLUTION** 3 semester hours
Study and analysis of literary works of the Mexican Revolution, including such writers as Azuela, Guzman, and Lopez y Fuentes.
- 12.547 SEMINAR IN PRE-19TH CENTURY SPANISH AMERICAN LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.
- 12.548 SEMINAR IN 19TH CENTURY SPANISH AMERICAN LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.
- 12.549 SEMINAR IN 20TH CENTURY SPANISH AMERICAN LITERATURE** 3 semester hours
Exploration of a particular author, genre or special topic.

- 12.590 INDEPENDENT STUDY** **1-9 semester hours**
 Individual study of a particular aspect of Hispanic civilization, language or literature under the supervision of a graduate faculty member. Upon special circumstances and student needs.
(Consult Department Chairperson.)
- 12.597 STUDIES ABROAD** **3-6 semester hours**
 College-organized programs abroad.
- 12.598 SPECIAL PROBLEMS** **3 semester hours**
 Areas of Spanish language or literature allowing the student to cover a particular aspect under special circumstances. May be used as remedial course in case of undergraduate deficiencies, in which case it will not be counted toward a degree. May be repeated.

ENGLISH
(Code 20)

COURSE DESCRIPTIONS

- 20.413 LANGUAGE IN AMERICAN SOCIETY** **3 semester hours**
 Social, political, and philosophical perspectives on the historical development and current status of English and other languages in American society.
- 20.482 MILTON** **3 semester hours**
 A comprehensive study of the poetry and prose of John Milton.
- 20.492 LITERARY CRITICISM** **3 semester hours**
 An examination in depth of major critics from Aristotle to the present with emphasis on application of critical principles to primary genres-drama, novel, poetry-and on independent study in varied areas of literature and aesthetics.
- 20.493 (503) BIBLIOGRAPHY AND LITERARY RESEARCH** **3 semester hours**
 History of literary scholarships, study of book production and practice in preparing specialized bibliographies and in planning scholarly projects.
- 20.494 RHETORIC OF LITERATURE** **3 semester hours**
 Study of major rhetorical devices used by writers in the various literary genres.
- 20.500 MASTER'S RESEARCH PAPER** **6 semester hours**
 An extensive and creditable scholarly paper on a topic to be determined by the student in conjunction with his/her adviser.
- 20.501 STRUCTURE OF ENGLISH** **3 semester hours**
 A linguistic study of modern English and its varieties, including phonology, morphology, lexicography and syntax.
- 20.502 HISTORY OF THE ENGLISH LANGUAGE** **3 semester hours**
 A detailed survey and analysis of the major language changes from Anglo-Saxon to Modern English, with attention to the history of the English-speaking peoples.
- 20.503 APPLIED ENGLISH LINGUISTICS** **3 semester hours**
 Experimental, project-oriented course in application of modern linguistic theory to classroom situations.
Prerequisite: 20.501, or comparable graduate or undergraduate course in structural linguistics.
- 20.509 JOURNALISM FOR HIGH SCHOOL TEACHERS** **3 semester hours**
 For high school teachers who offer courses in journalism or advise the school newspaper: staff recruiting; organization; gathering, writing, editing news; writing other journalistic forms; libel, censorship, freedom of press; business. Lectures, workshops, field trips. Applicable toward M.Ed, but not M.A. in English.
- 20.521 CONTEMPORARY SHORT STORY** **3 semester hours**
 Main lines of development of the short story from the mid-nineteenth century to the present. Attention is given to individual writers, especially major figures; to analysis and evaluation of individual stories; and to the characteristics of the genre.

- 20.522 MODERN DRAMA** **3 semester hours**
Main forces and movements in modern drama through selected dramatists from the time of Ibsen.
- 20.524 CONTEMPORARY NOVEL** **3 semester hours**
Writers and the trends of the novel in the modern era, with emphasis on British and American works.
- 20.526 MODERN POETRY** **3 semester hours**
Reading of a comprehensive selection of modern poetry, British and American. Emphasis on appreciating the art of the poems, on recognizing the modern spirit in them and on viewing them as part of a historical development of poetic tradition.
- 20.528 LITERATURE FOR THE ADOLESCENT** **3 semester hours**
Reading, study of books for the adolescent: consideration of literary qualities, evaluation criteria, human values in literature, approaches to literature, book selection, censorship, students' right-to-read. Applicable toward M.Ed., but not M.A. in English.
- 20.531 SEMINAR** **3 semester hours**
For advanced students near graduation. Each student in seminar will pursue his/her own line of study under the guidance of the instructor and in an area of study determined by the student and his/her adviser. Notice of intention to register for seminar must be given the instructor of the course at least two months before the course begins.
- 20.532 MAJOR BRITISH AUTHORS** **3 semester hours**
Study of one or more major writers in English literature. Authors included vary with each presentation of the course.
- 20.533, 534, 535 STUDIES IN BRITISH LITERATURE** **3 semester hours**
Specialized areas of British literature such as literary forms, ideas and movements. Content varies each time the course is offered.
- 20.542 EARLY ENGLISH DRAMA** **3 semester hours**
The growth of a native drama from the Middle Ages to the closing of the theatres in 1642; emphasis is on Shakespeare's contemporaries and Jacobean dramatists.
- 20.543 CHAUCER** **3 semester hours**
Major works, with emphasis on the mind and art of Chaucer and considerable attention to the Middle English language. Medieval background and various specialized scholarly problems are also dealt with.
- 20.547 ELIZABETHAN POETRY** **3 semester hours**
Elizabethan poetry, particularly the sonnet, lyric and narrative of the 1590s, is examined for structure, origins and influences. Students are encouraged to develop topics on the works of individual poets.
- 20.549 SHAKESPEARE** **3 semester hours**
A few selected plays are closely read. From this study are developed topics in biography and dating, textual history, sources and contemporary and earlier intellectual influences.
- 20.556 RESTORATION AND LATER DRAMA** **3 semester hours**
Trends in comedy and tragedy from the reopening of the theatres in 1660 through the 1770s. Among the dramatists studied are Congreve, Dryden, Wycherley, Steele, Goldsmith and Sheridan.
- 20.559 AGE OF JOHNSON** **3 semester hours**
Depth study of such major figures of the mid-eighteenth century as James Boswell, Samuel Johnson, Oliver Goldsmith, Richard Savage, Samuel Richardson, Henry Fielding, Laurence Sterne and Richard Brinsley Sheridan. Independent research is based on both such major literary personalities and minor authors of the period.
- 20.563 19TH CENTURY NOVEL** **3 semester hours**
Development of the novel as a major literary form of the Victorian age. A study of such major English novelists as Austen, Scott, the Brontes, Dickens, Thackeray, Trollope, Eliot and Hardy. Supplementary readings in other novelists of the period and in secondary source materials.

- 20.565 ENGLISH ROMANTIC POETS** **3 semester hours**
 Important segments of the work of the major Romantic poets to disclose the characteristics of the work and thought of each writer. Some attention given to background of the period and its literary forebears and descendants.
- 20.569 VICTORIAN LITERATURE** **3 semester hours**
 A study in depth of some aspect or combination of aspects of literary significance in the Victorian Age-author(s), genre, specific works.
- 20.582 AMERICAN LITERATURE: EARLY** **3 semester hours**
 Prose writers and poets of Colonial and Federalist America: Bradstreet, Taylor, Edwards, Franklin, Paine, Jefferson, Freneau and Tyler. An intensive study of Puritanism and its role in the literature of these periods.
- 20.583 AMERICAN LITERATURE: MIDDLE** **3 semester hours**
 Major writers of the American Renaissance and other important Romantic writers of the 19th century: Irving, Poe, Emerson, Thoreau, Hawthorne, Melville, Whitman and Dickinson. Particular emphasis given to the role these writers played in interpreting the American experience.
- 20.584 AMERICAN LITERATURE: MODERN** **3 semester hours**
 Since much of 20th century American literature achieves its greatest intensity in being critical of native, traditional values, the course examines such representative writers as Dreiser, Anderson, Lewis, Frost, Eliot, Hemingway, Fitzgerald and Faulkner.
- 20.587 MAJOR AMERICAN AUTHORS** **3 semester hours**
 Study of one or more major writers in American literature. Writers included vary with each presentation of the course.

COMMUNICATION

(Code 23)

Master of Arts Degree in Communication

- Required:** A total of 30 semester hours including Communication 23.501, 23.502, 23.503, 23.504.
Elective: Six to 12 semester hours chosen from courses offered by the Department of English and the Department of Communication Studies.
 Six to nine semester hours chosen from courses offered in related disciplines after consultation with the student's adviser.
 Three semester hours as an optional research project: 23.598.

COURSE DESCRIPTIONS

- 23.501 NATURE OF COMMUNICATION** **3 semester hours**
 Primarily a theoretical survey of the major categories of the field of communication.
- 23.502 INTERPERSONAL COMMUNICATION** **3 semester hours**
 A survey of the changing roles of laws, customs, and expectations as they relate to social interaction between people of one culture or of different cultures.
- 23.503 NON-PRINT MEDIA** **3 semester hours**
 A survey of the history and theory of radio, television and film. Theoretical emphasis combined with practical experience gained through field trips and media projects.
- 23.504 PRINT MEDIA** **3 semester hours**
 An in-depth examination of publishing from the historical, theoretical and other critical viewpoints.
- 23.598 MASTER'S RESEARCH PROJECT** **3 semester hours**
 Independent research on a topic approved by the student's adviser(s).

PUBLIC ADDRESS

(Code 25)

Senior Level Undergraduate Courses Open to Graduate Students

(For course descriptions, see Undergraduate Bulletin)

- 25.421 PERSUASION** 3 semester hours
- 25.445 ORGANIZATIONAL COMMUNICATION** 3 semester hours
An explanation of the theoretical and practical aspects of how communication patterns develop in organizations.
- 25.492 SPEECH SEMINAR: PUBLIC ADDRESS** 3 semester hours
- 25.501 INTRODUCTION TO RESEARCH IN SPEECH** 3 semester hours
An overview of the fields of research in speech and an examination of the contributions of professional speech organizations, graduate studies and research. Historical, descriptive, experimental and evaluating research studies are examined. A pilot thesis is required of each student to demonstrate competency in research techniques and the use of bibliographical resources.
- 25.502 RHETORICAL CRITICISM** 3 semester hours
The nature of rhetorical criticism. The development of rhetorical theory from the Homeric period to the modern theorists. Methods of the critics during antiquity, the intermediate period (1600-1850) and methods of the modern critics.
- 25.503 HISTORY AND CRITICISM OF AMERICAN PUBLIC ADDRESS** 3 semester hours
Evaluation and discussion of the development and application of rhetoric in America in terms of the speaker, speech and times. American speakers selected from a cross-section in history prestudied from the viewpoints of biographical background nature and extent of speaking, audience reaction, the speaker's basic ideas, his preparation, arrangement and style, basic philosophy, and platform behavior.
- 25.504 BRITISH ORATORY** 3 semester hours
Burke, Fox, Sheridan, George, Bevan, Churchill and other orators in the 17th through the 20th centuries. Analysis of style, philosophies, and effectiveness and their contribution to rhetoric theory.
- 25.505 ANCIENT RHETORIC** 3 semester hours
The ancient rhetoricians Aristotle and Plato, Cicero, Longinus and Quintilian. Emphasis is on the analysis and critical concepts of these men, with a study of later interpretations of their works.
- 25.510 CURRENT PROBLEMS IN SPEECH ACTIVITIES** 3 semester hours
Current speech practices in the secondary school. Methods of initiating, improving and expanding speech programs.
- 25.515 ADVANCED PERSUASION AND PROPAGANDA** 3 semester hours
Techniques of attitude modification through persuasion and propaganda. Practical application of the techniques by each student.
- 25.520 ADVANCED ORAL INTERPRETATION** 3 semester hours
Understanding and appreciation of literature through developing skill in reading aloud. Selecting, adapting, and preparing material for presentation in high school classes.
Prerequisite: Consent of instructor.
- 25.530 ADVANCED RADIO AND TELEVISION** 3 semester hours
Practice and study of techniques of television announcing, writing (news and drama), directing, program planning and performing. Instructional radio and television. Laboratory hours required.
Prerequisite: Beginning course in radio and television.
- 25.585 PUBLIC ADDRESS SEMINAR** 3 semester hours
Specialized study by the class. The subject is selected by the instructor of Public Address.
- 25.586 PUBLIC ADDRESS SEMINAR** 3 semester hours
- 25.587 PUBLIC ADDRESS SEMINAR** 3 semester hours

25.590 MASTER'S RESEARCH PAPER**3 semester hours****ART****Master of Arts Degree in Art****Studio Art:**

Prerequisites: An undergraduate major in art (fine arts or art education). In the case of a non-art undergraduate major, it may be necessary to make up the deficiencies without graduate credit.

Admission Requirements: Completion of appropriate admissions forms; official transcript of undergraduate work; an 8x10 plastic sleeve of slides representative of one's creative work; a one-page statement of one's objectives and philosophy; a personal interview and the results of a Miller Analogies examination, arranged by the Graduate Office.

Course Requirements: Four levels in the advanced studio area of the student's specialization; related work in other studio areas, art history, art education or outside fields; thesis; and a one-person exhibition of the candidate's creative work for a minimum of 30 credit hours of course work.

Art History:

Prerequisites: Bachelor's degree in a field related to art history with minimum of 15 art history credits. Students not meeting the minimum requirements may be admitted with deficiencies to be completed before applying for candidacy.

Admission Requirements: Completion of appropriate admissions forms; official transcript of undergraduate work; a one-page statement of one's objectives and philosophy; a personal interview and the results of a Miller Analogies Examination arranged by the graduate office.

Course Requirements: A minimum of 30 graduate art history credits is required to be taken from the core of required courses plus the elective options. A thesis is required of all students. The student's committee will determine the number and sequence of courses.

COURSE DESCRIPTIONS**GENERAL AND ART EDUCATION****(Code 30)****30.590 CURRENT THEORIES OF ART AND ART EDUCATION 3 semester hours**

This course will focus on current theories of art and art education practiced in American schools with an emphasis on eventual application. A research paper or research project will be required.

30.591 ADVANCED VISUAL ARTS FOR EXCEPTIONAL CHILDREN 3 semester hours

The importance of art activity as a means of enriching and stimulating a special child's awareness of himself and his world is stressed. Emphasis is placed on those positive aspects for creative activity which the handicapped child possesses.

30.595 THESIS 3 semester hours**COURSE DESCRIPTIONS****ART HISTORY****(Code 31)****31.560 READINGS AND RESEARCH IN CONTEMPORARY ART HISTORY 3 semester hours**

A detailed study of contemporary movements in art from the late nineteenth century to the present, with readings and research for advanced students.

31.565 READINGS AND RESEARCH IN AMERICAN ART HISTORY 3 semester hours

Advanced study of the history of visual arts in America.

31.570 READINGS AND RESEARCH IN EARLY EUROPEAN ART HISTORY 3 semester hours

The research focus for this course will be on specific topics relating to the periods from pre-historic to the gothic.

31.571 READINGS AND RESEARCH IN LATER EUROPEAN ART HISTORY 3 semester hours

The period from the early Renaissance through French Impressionism provides the thrust for this course.

31.575 READINGS AND RESEARCH IN ORIENTAL ART HISTORY 3 semester hours

This course is intended to be an advanced survey of Oriental Art in the broadest sense of the word: The art and architecture of the ancient Near East, Japan, China and India. An introduction to both monuments and cultural ideas, the course exposes the advanced student to basic problems in chronology, style and research methodology.

31.580 READINGS AND RESEARCH IN ARCHITECTURAL ART HISTORY 3 semester hours

An advanced survey of the evolution of architecture in the western world from the Pharaonic Egyptian period through the contemporary twentieth century. Typical and outstanding examples of each period studied will be discussed and researched by the general student. Imperative to an understanding of the physical structures studied will be an analysis of the type of society and the rationale for the creation of such an architecture.

31.585 ART AND CULTURE OF FRANCE 3 semester hours

A study-tour of France with specific attention to French Art seen in relation to its social and cultural environment. Visits will be made to places of artistic and cultural interest in and around Paris, and specific areas of France where the emphasis is for the particular course of study. This course will also be offered under Extended Programs for advanced students and members of the community.

31.592 READINGS AND RESEARCH IN ADVANCED VISUAL AESTHETICS 3 semester hours

Advanced study of images and viable aesthetic positions in the plastic arts emphasizing artistic and perceptual awareness and concern with environmental relationships.

31.595 DIRECTED STUDY IN ART HISTORY 3 or 6 semester hours

The advanced study of a topic in the area of art history. Following an intensive review of the scholarly literature in the field, a paper, meeting contemporary standards of publication in the field, will be required under the direction of a faculty adviser.

ART STUDIO

(Code 32)

32.500 ADVANCED CERAMICS I 3 semester hours

The student will define in writing his present level of knowledge and competency. From this information, he/she can then prepare a plan of study that will allow for a direction of work. The student will be responsible for making and firing his own work.

32.501 ADVANCED CERAMICS II 3 semester hours

At this level, the student will intensify his/her study by selecting a specialized problem relating to the experiences gained in Advanced Ceramics I.

32.502 ADVANCED CERAMICS III 3 semester hours

The student will continue to pursue an advanced and refined level of study in the discipline of creating an art object. A specialized problem relating to the experiences gained in the first two levels will facilitate a continuity in learning.

32.503 ADVANCED CERAMICS IV 3 semester hours

At this level, the student's work should reflect a professional and philosophical attitude. The student will be required to have an exhibition of his/her work.

32.510 ADVANCED DRAWING I 3 semester hours

An exploration of advanced drawing techniques and involvement of personal expression and imagery will be required.

- 32.511 ADVANCED DRAWING II** 3 semester hours
Emphasis will be on the development of individual themes and projects.
- 32.512 ADVANCED DRAWING III** 3 semester hours
Focus on personal expression and imagery for potential thesis statement--self-direction and innovation.
- 32.513 ADVANCED DRAWING IV** 3 semester hours
Concentration and production of drawings for a unified thesis statement.
- 32.520 ADVANCED CRAFTS I** 3 semester hours
Advanced levels of experimentation with contemporary idioms in crafts design. Emphasis on highly professional concepts of form and methods and on an investigation and a refinement of techniques as a means of realizing significant visual statements in crafts. Individualized instruction and independent planning for each student for all four levels.
- 32.521 ADVANCED CRAFTS II** 3 semester hours
Individual concentration on specific media and related techniques. Intense involvement with refined design schemes, systems and variations that are oriented toward an increasingly more defined singular direction in crafts.
- 32.522 ADVANCED CRAFTS III** 3 semester hours
Highly independent and mature involvement with advanced concepts, methods and processes in a specific crafts direction. (At this level, students should begin to develop a thesis presentation which should emerge from studio experiences, independent research and from a wide highly selective exposure to craft objects in museums, galleries and private studios.
- 32.523 ADVANCED CRAFTS IV** 3 semester hours
A continued involvement with advanced concepts in crafts. Concentration on completing final works for a one-man or a one-woman show. A definitive position paper reflecting a personal philosophy in crafts should be developed.
- 32.530 ADVANCED GRAPHICS I** 3 semester hours
Advanced level exploration of traditional and/or experimental printmaking methods. Emphasis on personalized imagery and technical proficiency.
- 32.531 ADVANCED GRAPHICS II** 3 semester hours
Exploration of advanced level printmaking including color and color registration procedures.
- 32.532 ADVANCED GRAPHICS III** 3 semester hours
Focus on personalized forms for potential thesis statement. (Students are expected to be innovative and proficient in the technology of printmaking).
- 32.533 ADVANCED GRAPHICS IV** 3 semester hours
Concentration on the selected forms for a unified thesis statement.
- 32.540 ADVANCED PAINTING I** 3 semester hours
Search into purpose of painting with specific attention to traditional methods, i.e., glazing, egg tempera, and underpainting.
- 32.541 ADVANCED PAINTING II** 3 semester hours
Exploration into different approaches of painting for individual expression. Achievement in representational painting.
- 32.542 ADVANCED PAINTING III** 3 semester hours
Continued development into maturity of individual style--special emphasis on mural painting designed into architectural space.
- 32.543 ADVANCED PAINTING IV** 3 semester hours
Mature fulfillment of personal expression. Painting should reflect continuity of intent and style. A selection of work will be prepared for exhibition and thesis.
- 32.550 ADVANCED SCULPTURE I** 3 semester hours
The student will define in writing his present level of knowledge and philosophical direction, from this information, he/she will then prepare a plan of study that will allow for a direction of work. The student will be responsible for the completion of show quality pieces during the course.

- 32.551 ADVANCED SCULPTURE II** **3 semester hours**
The student will continue to experiment while still being concerned with the concept form. At this level, more positive philosophical ideas should begin to grow and be developed.
- 32.552 ADVANCED SCULPTURE III** **3 semester hours**
At this level, the student's work should reflect a significant transition from experimentations to a more definite direction in technique and aesthetic opinion.
- 32.553 ADVANCED SCULPTURE IV** **3 semester hours**
The student will continue to produce highly professional pieces of art while maintaining an awareness of his/her responsibility to society. This responsibility will be fulfilled by an exhibition of the student's work for his/ her thesis.
- 32.595 DIRECTED STUDY IN STUDIO ART** **3 or 6 semester hours**
Continued development of a student's involvement in one of the selected studio areas, following the satisfactory completion of four levels of advanced study in that area. Permission of the instructor and department chairperson is required.

4.2 SOCIAL STUDIES

COURSE DESCRIPTIONS

ECONOMICS

(Code 40)

- 40.513 ORIGIN AND DEVELOPMENT OF CAPITALISM** **3 semester hours**
Transition from feudalism to capitalism and the subsequent influence of leading capitalist institutions on industry, agriculture, commerce, banking and the social movement.
- 40.514 LABOR ECONOMIC THEORY** **3 semester hours**
The emphasis of the course would be on labor economic theory and its application in analyzing the issues of employment and inflation. Topics discussed would include: growth of the labor force and its composition, wage theories and wage structures, trade unionism and income distribution, economics of poverty and minimum wage and hour laws and civil legislation. Occupational choices, job search, labor mobility and human capital formation would also be included. Students would be exposed to research and measurement methodology to meet the research requirements of the course.
- 40.515 PUBLIC POLICY AND BUSINESS** **3 semester hours**
Public policies affecting the economy: historical, philosophical and legal basis of regulation; the rationale of free enterprise. Intensive analysis of selected areas of economic policy related to government action.
- 40.531 CURRENT ECONOMIC PROBLEMS** **3 semester hours**
Selected economic problems of current interest and concern to our society. Basic economic principles and theories and the thinking of recognized economists of the past and present as revealed in their published works.
- 40.532 COMPARATIVE ECONOMIC SYSTEMS** **3 semester hours**
A comparison of the workings and performance of the major forms of economic organization. The capitalist systems; the modern welfare states; state capitalism; communism; and socialism.
- 40.533 INTERNATIONAL ECONOMIC POLICIES AND RELATIONS** **3 semester hours**
Application of modern international economic and financial analyses to emerging contemporary problems of nations trading with one another. Selected topics include customs unions; optimum currency area; international cartels; and flexible exchange rates. Impact of governmental and intergovernmental relations and regulations.

*COURSE DESCRIPTIONS***GEOGRAPHY**

(Code 41)

- 41.405 THE GEOGRAPHY OF FOOD PRODUCTION** 3 semester hours
An in-depth examination of the characteristics of the major agricultural regions of the world and an attempt to explain how they came into being. There will also be a description of the features of the contemporary farming systems.
- 41.442 MAP SKILLS** 3 semester hours
The use of a variety of published maps for interpreting and interrelating past and present physical and cultural phenomena with a view, also, toward the future.
- 41.444 THE GEOGRAPHY OF INDUSTRIAL LOCATION** 3 semester hours
A comprehensive examination of the factors that influence the location of industries and industrial location theory will be made. Time will also be spent studying the manner in which selected industries have chosen their particular locations.
- 41.462 THEORETICAL AND QUANTITATIVE GEOGRAPHY** 3 semester hours
Conceptual frameworks, theoretical developments, methods of measuring intensity and dispersion of geographical distributions; quantitative approaches in geographical analyses.
- 41.501 EVOLUTION OF GEOGRAPHIC THOUGHT** 3 semester hours
The evolution of the scope, nature, and methodology of the discipline is the substance of this course. The development of geographic techniques and ideas along with the collection and arrangement of facts, from the Greek, Roman, and Arab periods to the present, are studied. Special emphasis is given the German, French, British, and American schools of thought.
- 41.523 THE GEOGRAPHY OF SETTLEMENT** 3 semester hours
The facilities men build in the process of occupying an area ranging from the primitive to the complex urban agglomeration. Bases upon which settlements are founded and nurtured and their site, situation, external relationships and internal structure and morphology.
- 41.524 GEOGRAPHY OF TRADE AND TRANSPORTATION** 3 semester hours
Basic concepts and principles. Problems of land and air transportation; establishment of ports, railroad centers and airways to handle commodity exchanges. Trade and transportation as important geographic factors in regional development.
- 41.548 POLITICAL GEOGRAPHY** 3 semester hours
Geography foundations of political events and conditions; geographic factors significant to the formation, growth, and political behavior of states with problems such as boundaries, population distribution and other tensions.
- 41.549 GEOGRAPHY OF WORLD RESOURCES AND INDUSTRIES** 3 semester hours
Analysis of land and water resources focusing upon their distribution, evaluation and management.
- 41.555 HISTORICAL GEOGRAPHY OF THE UNITED STATES** 3 semester hours
An in-depth examination of selected themes and methodology in historical geography and their application to selected topics in the United States. Emphasis will be placed on changes in the geographic elements of certain phenomena as they developed through time.
- 41.556 GEOGRAPHY OF PENNSYLVANIA** 3 semester hours
The development of regional understandings of Pennsylvania, emphasizing man's response to changing environment; resources of the state, their extent, their use and the need for a planned conservation program.
- 41.560 GEOGRAPHY OF SOUTH AMERICA** 3 semester hours
The course provides an opportunity to evaluate the relative importance of environmental and cultural factors in accounting for the existence of empty and overcrowded land in the same country. Problems such as this, with implications for the entire "underdeveloped" world are examined from the geographic point of view.

- 41.566 GEOGRAPHY OF ANGLO-AMERICA** 3 semester hours
Some of the dynamic changes taking place in the United States and Canada which are affecting the size, shape and character of the traditional geographic regions with reference to technology, social and demographic conditions. Domestic and international policies and agreements and alterations in the resource base.
- 41.571 GEOGRAPHY OF AFRICA SOUTH OF THE SAHARA** 3 semester hours
Political and technical change as affected by geography. These aspects and the traditional interests of the regional geographer are examined against the background of problems presented by the physical geography of this unique part of the world.
- 41.575 GEOGRAPHY OF WESTERN AND MEDITERRANEAN EUROPE** 3 semester hours
An intensive treatment of selected areas of Western and Mediterranean Europe in terms of physical, economic, and cultural circumstances from the viewpoint of geographical influence.
- 41.576 GEOGRAPHY OF SOUTH AND EAST ASIA** 3 semester hours
The physical, economic and cultural geography of a region--Pakistan through Manchuria. Present circumstances and world relationships.
- 41.580 ADVANCED CULTURAL GEOGRAPHY** 3 semester hours
An in-depth study of the basic principles, themes and concepts in the field. A thorough examination of the process of spatial diffusion and spatial perception and how these processes are affected by culture will be made. Time will also be spent on making students aware of the cultural landscape, how cultural landscapes differ from place to place and how to interpret the landscape they are observing.
- 41.590 SEMINAR IN GEOGRAPHY** 3 semester hours
Individual students pursue in depth selected topics in geography that vary according to the student's interest and need; these provide bases for seminar discussion.
- 41.599 DEPARTMENTAL RESEARCH PAPERS** 3-6 semester hours
(Departmental Paper) - Master's Thesis.

EARTH SCIENCE (Code 51)

(See Page 41 for Earth Science degree program).

- 51.451 FIELD TECHNIQUES IN EARTH AND SPACE SCIENCE** 6 semester hours
Intensive field and laboratory training in the use of equipment and techniques in the areas of geology, hydrology and cartography. Field trips are integral and vital segments of the course.
- 51.453 OPERATION AND PROGRAMMING OF THE PLANETARIUM** 3 semester hours
Methods in use of the planetarium as a teaching and motivational device, supervised training and practice in the operation, use and maintenance of planetarium equipment.

HISTORY (Code 42)

COURSE DESCRIPTIONS

Senior Level Courses Open to Graduate Students

(For course description, see Undergraduate Catalog)

- 42.401 CURRENT EVENTS IN HISTORICAL PERSPECTIVE** 3 semester hours
- 42.402 CURRENT EVENTS IN HISTORICAL PERSPECTIVE** 3 semester hours
- 42.424 EUROPE 1914-1939; THE FIRST WORLD WAR AND THE AGE OF THE DICTATORS** 3 semester hours
- 42.425 EUROPE SINCE 1939** 3 semester hours
- 42.452 (357) SOVIET RUSSIA** 3 semester hours
- 42.453 PROBLEMS OF CONTEMPORARY LATIN AMERICA** 3 semester hours
- 42.454 MODERN JAPAN: THE EMERGENCE OF AN ASIAN SUPERPOWER** 3 semester hours

- 42.456 20TH CENTURY MIDDLE EAST/NORTH AFRICA** 3 semester hours
- 42.472 HISTORY OF LABOR IN THE UNITED STATES** 3 semester hours
- 42.483 POPULAR CULTURE IN AMERICA** 3 semester hours
- 42.518 READINGS ON THE SOVIET UNION** 3 semester hours
Selected readings on significant aspects of Soviet life. Varying themes and topics may be selected during different semesters.
- 42.526 SELECTED TOPICS IN EUROPEAN IMPERIALISM SINCE 1870** 3 semester hours
Colonial policy of the major European colonial powers in Africa, Asia, and Melanesia, its impact upon mother country and colonies and the dissolution of colonial empires after World War II.
- 42.530 HISTORY OF EUROPE: 1900-1923** 3 semester hours
Internal and external policies of the European powers, the crisis leading to World War I, the military campaigns, the peace treaties of 1919 and the upheavals following the new distribution of power.
- 42.532 HISTORY OF EUROPE: 1923-1945** 3 semester hours
Political and economic crises of the 1920's; the rise of dictatorship and the political crisis leading to the Second World War; campaigns and diplomacy of the war; the condition in which it left the belligerents.
- 42.534 THE EUROPEAN UNIFICATION MOVEMENT** 3 semester hours
Efforts of the Western European nations to achieve economic, military and political unity since 1945.
- 42.536 STUDIES IN THE COLD WAR** 3 semester hours
Causes, characteristics and evolution of the Cold War from 1947 to the present.
- 42.554 CONTEMPORARY FAR EASTERN CULTURES** 3 semester hours
Selected Far Eastern Cultures including interdisciplinary study and a review of communication and the arts.
- 42.556 TWENTIETH CENTURY MEXICO AND THE CARIBBEAN** 3 semester hours
An examination of selected political, social and economic problems of Mexico and the Caribbean area in recent decades with emphasis on the contention of forces for stability and radical change (respectively) in the region.
- 42.580 UNITED STATES-LATIN AMERICAN RELATIONS** 3 semester hours
Diplomatic exchanges between the United States and the twenty Hispanic American republics are examined together with economic, cultural and social contacts. Factors that have contributed to a lack of hemispheric solidarity.
- 42.581 UNITED STATES AND FAR EASTERN RELATIONS** 3 semester hours
An analysis of the interest and concern of United States diplomacy with the Far East from the mid-nineteenth century to the present. Particular attention is given to changing relations with the Philippines, China and Japan and to various attempted solutions to regional problems.
- 42.582 THE UNITED STATES AS A WORLD POWER** 3 semester hours
The emergence of the United States into the world order, its roles in the Councils of the world, its responsibilities in world leadership, its encouragement of democratic systems.
- 42.585 COLONIAL AMERICAN INSTITUTIONS** 3 semester hours
The roles of religious, educational, philanthropic, political and business institutions in America before 1790.
- 42.586 AMERICAN URBAN HISTORY** 3 semester hours
The origins and consequences of the growth of urban centers upon American economic, political and social institutions.
- 42.587 STUDIES IN PENNSYLVANIA HISTORY** 3 semester hours
Through a combination of lectures and research projects students investigate significant statewide, area or local aspects of Pennsylvania history. Specific chronological or topical emphases may be selected by the instructor.

- 42.588 THE TRANS-MISSISSIPPI WEST** 3 semester hours
The origins, course and consequences of American expansion across the Mississippi River.
- 42.589 HISTORY SEMINAR** 3 semester hours
Lectures, reports and a research paper which a student may take in the area of special interest--i.e., American, European or non-western history.
- 42.590 HISTORY SEMINAR** 3 semester hours
Continuation of 42.589.
- 42.591 HISTORY SEMINAR** 3 semester hours
Continuation.
- 42.592 HISTORY READINGS** 3 semester hours
Readings, reports and discussion on a selected topic in American, European or Non-Western History which is tailored to the student's area of special interest.
- 42.593 HISTORY READINGS** 3 semester hours
Continuation.
- 42.594 HISTORY READINGS** 3 semester hours
Continuation.
- 42.596 DIRECTED STUDY IN HISTORY** 3-6 semester hours
Meetings of student and instructor are to introduce the topic, guide the research, and help polish the product. Whenever possible, a one-on-one learning situation is to enable the instructor to guide the student to a maximal degree. The special interests of the student and instructor will determine content and procedure. Must have approval of department chairperson to enroll in this course.
- 42.597 INDEPENDENT STUDY IN HISTORY** 3-6 semester hours
Same as 42.596.
- 42.599 THESIS** 6 semester hours
Independent research and the preparation of a formal paper required in partial satisfaction of the requirements for the degree Master of Arts.

POLITICAL SCIENCE

(Code 44)

- 44.405 THE DEVELOPMENT OF POLITICAL THOUGHT** 3 semester hours
A chronological survey from the ancient Greeks to the present is undertaken to present the ideas of seminal political thinkers as they grappled with perennial problems.
- 44.409 AMERICAN POLITICAL THOUGHT** 3 semester hours
Analyzes the relationship of American political thought to contemporary political science by using traditional materials in an historical, chronological way but reworking them to show their relation and relevance to actions and institutions. Included are the main ideas of the leading political thinkers in America from the Colonial period to the present.
- 44.429 RACISM AND SEXISM IN AMERICAN POLITICS** 3 semester hours
An analysis of the role of Blacks in American politics, the Black Power movement, civil rights and racial conflict.
- 44.437 PUBLIC ADMINISTRATION APPLICATIONS** 3 semester hours
This course operationalizes the theory of Public Administration by using simulations and cases.
- 44.438 CIVIL SERVICE EMPLOYMENT POLICIES AND PRACTICES** 3 semester hours
Public service as a career, the personnel needs of national, state and local governments, civil service law, personnel systems, current problems.
- 44.440 THE PRESIDENT AND CONGRESS** 3 semester hours
Reviews presidential and congressional politics; public policy-making roles; executive-legislative relationships; constitutional issues. Examines problem areas and proposals for reform.

- 44.446 CONSTITUTIONAL LAW I** **3 semester hours**
 Analyzes of the evolution, structure and function of the Supreme Court, concentrating on a case study approach of the Court's interpretations of the powers of the President, Congress and federal-state relationships.
- 44.447 CONSTITUTIONAL LAW II** **3 semester hours**
 Studies the decisions of the Supreme Court as they are related to the individual and the government, concentrating on nationalization of the Bill of Rights; rights of persons accused of crimes; equal protection and voting rights.
- 44.448 JUDICIAL PROCESS** **3 semester hours**
 Studies policy-making by the federal courts, primarily the Supreme Court. The nature of the policy-making function as well as the impact of policy-making on American society are also analyzed.
- 44.452 STATE AND LOCAL GOVERNMENT AND POLITICS** **3 semester hours**
 Presents a description and analysis of state and local legislatures, executives and judiciaries; the myths and realities of state and local politics; intergovernmental relations; current policies and problems.
- 44.463 THE U.S.S.R. POLITICAL SYSTEM** **3 semester hours**
 Studies the history, development, ideology, structure, process, institutions and policies of the Soviet Political System.
- 44.464 GOVERNMENT AND POLITICS OF IRELAND I** **3 semester hours**
 Presents a survey of historic, social, cultural and religious developments in Ireland, with concentration on a study of the government and politics of Northern Ireland and the Irish Republic. Examines contemporary literature, drama, music, and art.
- 44.487 INTERNATIONAL LAW AND ORGANIZATIONS** **3 semester hours**
 Presents the theoretical and practical implications of the legal and organizational efforts to regulate international relations with emphasis on international law; the United Nations; the International Court of Justice and regional and functional organizations.
- 44.490 INDEPENDENT STUDY IN POLITICAL SCIENCE** **1-6 semester hours**
 Provides for individualized reading, research and reporting under conditions of minimal supervision. Projects must have departmental approval and be underway by the end of the first week of a session.
- 44.491 READINGS IN GOVERNMENT AND POLITICS** **3 semester hours**
 Topics are selected through consultation between instructor and student. Designed for both group and individual study.
- 44.492 SEMINAR IN GOVERNMENT AND POLITICS** **3 semester hours**
 Examines selected problems in government and politics in an attempt to review and unify theories and methods of political science. Emphasizes individualized research projects.
- 44.496 FIELD EXPERIENCE IN POLITICAL SCIENCE** **1-6 semester hours**
 Provides for supervised individual or group activities, including internships of a non-classroom variety in applied areas of political science.

SOCIOLOGY

(Code 45)

- 45.441 SOCIAL INDICATORS** **3 semester hours**
 This course is designed to reinforce and extend earlier learning in research techniques and methods by focusing upon systematic step-by-step understanding, analysis and preparation of social indicators at the federal, state and local levels of social policy planning and analysis. The emphasis is on developing student understanding of social indicators and their use in social planning within all levels of society.
Prerequisite: 45.211, 45.316, 45.460 or equivalent

- 45.443 SOCIOLOGY OF DEVIANT BEHAVIOR** **3 semester hours**
 This course evaluates the presence and function of deviance in society; its various types, including mental illness and various types of crime and stigmatized behavior; and how it is handled therapeutically and legally: institutionalization and treatment. It attempts to provide a broad theoretical perspective as well as concrete examples of deviance in any society. The last third specifically examines current methods of rehabilitation and punishment.
Prerequisite: 45.211.
- 45.450 SOCIAL WORK PROCESSES III** **3 semester hours**
 An analysis and application of concepts from communication, information and systems theory to social work practice.
Prerequisite: 45.211.
- 45.465 ADVANCED METHODS OF RURAL-URBAN ANALYSIS** **3 semester hours**
 Probability theory, sampling and statistical inference applicable to rural-urban area analysis. Emphasis is placed on the problem involved in researching the changing social composition of rural-urban communities.
Prerequisite: 45.211.
- 45.467 POPULATION STUDY** **3 semester hours**
 A study of human population, its major theories, distributions, composition and other characteristics, changes and future developments of population; impacts of population problems on society as influenced by vital processes and migration patterns.
Prerequisite: 45.211.
- 45.468 SOCIAL SERVICE PLANNING** **3 semester hours**
 An advanced consideration of the social context of the theories and applications as well as the social effects of social planning, social policy and social services systems on people in service based post-industrial societies at all levels of government.
Prerequisite: 45.211.
- 45.474 CONTEMPORARY ENVIRONMENTAL ISSUES** **3 semester hours**
 Some major human problems that lead to environmental deterioration, particularly water, air and noise pollution, energy and other resource depletion as well as increasing population density.
Prerequisite: 45.211
- 45.478 INDUSTRIAL SOCIOLOGY** **3 semester hours**
 A sociological examination of work and the milieu of the worker; formal and informal work organizations, worker job satisfaction and dissatisfaction. The structure and organization of industrial and post-industrial societies; and the relationship between work organizations within communities and society.
Prerequisite: 45.211.
- 45.490 SOCIOLOGY OF AGING** **3 semester hours**
 A study of aging, its major theoretical themes, patterns of living, socio-psychological and cultural consequences of aging. Further, the course examines the contemporary issues, problems and programs of the aging.
Prerequisite: 45.211.
- 45.500 SOCIOLOGY OF MASS COMMUNICATION** **3 semester hours**
 This course is an in-depth discussion of: the cognitive and behavioral effects of mass media, especially television content, on audiences; the social structure of communications industry, particularly its influence on production, programming, news content, "newsworthiness" and "media events;" and the use of mass media by the U.S. at home and abroad. Students will critique the latest research articles in the field.
- 45.511 SOCIAL INSTITUTIONS** **3 semester hours**
 Sociological examination of major institutions in the U.S. cross-culturally compared with those in other societies. Specific institutions will be selected depending on the interest of the students and faculty.
- 45.513 ADOLESCENTS IN AMERICAN SOCIETY** **3 semester hours**
 Study of the role of adolescents in contemporary U.S. society with special emphasis on the adolescent's social interactions in groups and institutions.

- 45.523 THE CONTEMPORARY AMERICAN COMMUNITY** 3 semester hours
An advanced examination of the social dynamics of community life, its institutions, organizations, and people within the context of the development of post industrial society.
- 45.525 CURRENT SOCIAL ISSUES** 3 semester hours
Analysis of current social issues and solutions offered to solve them. Issues and solutions are explored within the broad framework of the social sciences and specific framework of sociological and anthropological data.

ANTHROPOLOGY
(Code 46)

- 46.430 CULTURES AND PEOPLES OF OCEANIA** 3 semester hours
Types of aboriginal culture and the distribution of languages and physical types in the Pacific-Island world, with attention paid to archaeological evidence and migration routes from Malasia to Melanesia and Polynesia.
- 46.440 LANGUAGE & CULTURE** 3 semester hours
A study of the place of oral or non-oral language in human evolution and contemporary cultures. Topics discussed include dialectal variation, discourse analysis, multilingualism, language and cognition and the role of language in education.
- 46.450 PEOPLES AND CULTURES OF SOUTH AMERICA** 3 semester hours
A survey introduction to the aboriginal, non-literate cultures of South America, including the ecological background, archaeology and cultural patterns.
- 46.470 HISTORY OF ANTHROPOLOGICAL THOUGHT AND THEORY** 3 semester hours
This course surveys intensively the leading methods and theories of anthropological and ethnological interpretation, with special emphasis on the concept of culture and its practical application to modern problems.
- 46.490 SOCIALIZATION OF THE CHILD** 3 semester hours
A comparative analysis of the socialization process as it occurs in selected non-western cultures. Life experience and adjustment of the individual through infancy, middle childhood and youth. Contrasting methods of introducing children to adult economic, social, biological behavior are described.

PSYCHOLOGY
(Code 48)

- 48.525 INDIVIDUAL INTELLIGENCE TESTING** 3 semester hours
Analyzes the nature and rationale of various individual tests of intelligence. Provides skills and methods in administering tests, and in scoring, interpreting and reporting results.
- 48.576 THEORIES OF HUMAN LEARNING** 3 semester hours
Studies the historical and contemporary learning systems and models which yield principles for practical application.
Note: The following senior level undergraduate courses are also open to graduate students.
- 48.406 PSYCHOLOGY SEMINAR** 3 semester hours
Provides for an advanced consideration of significant topics in Psychology. Requires reports and discussion of current research. Course may be repeated with change in topic.
Prerequisite: 21 hrs. in Psychology and consent of instructor.
- 48.436 THEORIES OF PERSONALITY** 3 semester hours
Provides a critical study of theories explaining development, structure and organization of personality. Considers personality from psychoanalytic, social, individual, self and learning points of view.
Prerequisite: 48.101.
- 48.451 LABORATORY TRAINING IN GROUP PROCESSES** 3 semester hours
Offers on-going experience on topics including norm-setting, leadership, problem solving, role playing cooperation/ competition and decision-making.
Prerequisite: 48.101 and consent of instructor. (Offered Spring only).

48.453 ORGANIZATIONAL PSYCHOLOGY**3 semester hours**

Describes the application of psychological theory and research to the study of industrial, business, profit and nonprofit service, military and governmental organizations. Emphasizes the interaction of individual perceptions, group dynamics and organizational climates and strategies to maximize the satisfaction and effectiveness of each component within and between complex organizations.

Prerequisites: 48.101, 251 and junior standing.

48.464 ADVANCED EXPERIMENTAL DESIGN**3 semester hours**

Presents an advanced consideration of the planning, conduct and evaluation of research in the behavioral and biological sciences, employing parametric and non-parametric statistics. Emphasizes inferential statistics, design, analysis, interpretation and computer utilization.

Prerequisites: 48.101, 160, 281, 282 or consent of instructor.

48.466 INDEPENDENT STUDY IN PSYCHOLOGY**3 semester hours**

Provides for the study of a topic via either review and research of technical psychological literature or empirical manipulation of variables in the field or laboratory under supervision of a Psychology faculty member resulting in a written report of its outcome.

Prerequisite: consent of instructor and departmental approval.

48.497 PSYCHOLOGY PRACTICUM**3-15 semester hours**

Provides application of psychological knowledge through study color, observation and practice in a community, college or business setting. May be repeated for a total of 15 semester hours.

Prerequisite: Consent of instructor.

4.3 SCIENCES AND MATHEMATICS

BIOLOGY

(Code 50)

Master of Science Degree in Biology

(Thesis Optional)

Purpose: This program is intended to prepare the student either for admission to a research-oriented doctoral degree program in biology, or employment in a biology or health-oriented profession.

Prerequisite: An undergraduate degree in biology or its equivalent. Undergraduate deficiencies must be made up without credit toward the master's degree.

Requirements: Thesis Option--30 semester hours, 18 semester hours including thesis must be in courses numbered 500 or above. A limited number of courses in other areas may be included on approval of the department if they are clearly supportive of the biology major. A non-credit research paper and a written comprehensive examination are also required.

Requirements: Non-thesis Option--30 semester hours, 18 of which must be in courses numbered 500 or above. A non-credit research paper and a written comprehensive examination are also required. A limited number of courses in other areas may be included on approval of the department if they are clearly supportive of the biology major.

Examinations: A seminar presentation of the thesis or required paper (non-thesis option) and its results must be given during the term in which the degree is to be granted; a written and/or oral comprehensive examination administered by a committee from the department is part of the non-thesis option.

Foreign Language: Proficiency in a foreign language is strongly recommended.

Master of Education Degree in Biology

Purpose: This specialization is intended to enhance the competence of secondary school teachers of biology by extending their scholarship in content and method through formal courses and independent study and research.

Prerequisite: An undergraduate major in biology with Level I certification; background in mathematics and chemistry adequate for the courses and research to be undertaken. Undergraduate deficiencies must be made up, without credit toward the degree, prior to departmental recommendation for candidacy.

Required: Biology 50.591 or 50.592 to fulfill the research requirement. Also, 60.501 and 60.591.
Elective: Courses are to be chosen with the adviser's approval. 65.566 is an acceptable elective. A minimum of 18 semester hours must be in courses numbered 500 or above.
Examination: A seminar presentation of the thesis or directed study and its results; a written and/or comprehensive examination may also be required.

COURSE DESCRIPTIONS

- 50.411 RADIATION BIOLOGY** **3 semester hours**
 Studies effects of radiation on living organisms; nuclear structure fundamental properties of radiation; physical, chemical and organisms; application of radio-chemicals in biological studies. Minimum of four hours per week including laboratory.
Prerequisite: 50.232, 52.233, 53.141, or consent of instructor.
- 50.431 EVOLUTION** **3 semester hours**
 Studies the major concerns of the theory of evolution and contributions toward their solutions made by genetics, paleontology, systematics, and ecology. 3 hours/week lecture.
Prerequisite: 50.110 or 120; 50.332 recommended.
- 50.441 CYTOLOGY AND CYTOGENETICS** **3 semester hours**
 Studies the structure and function of cytoplasmic and nuclear organelles of cells. Laboratory studies include techniques for cell, chromosome and tissue preparation. 2 hrs. lecture, 2 hrs. laboratory per week.
Prerequisites: 50.332 or 50.333; 52.211 or 52.231 or consent of instructor.
- 50.454 ETHOLOGY** **3 semester hours**
 Presents a description and classification of animal behavior; its evolution and biological function. Emphasizes mechanisms underlying behavior especially species--typical behavior. three hours lecture, two hours laboratory per week.
Prerequisites: 50.110 and 371 or consent of instructor.
- 50.455 ENVIRONMENTAL MICROBIOLOGY** **3 semester hours**
 Provides a practical application of knowledge of micro-organisms; their effects on our environment; methods of control; sanitation regulations and testing procedures. Field trips taken when practical. One hour lecture, four hours laboratory per week.
Prerequisite: 50.341 or consent of instructor.
- 50.457 ENTOMOLOGY** **3 semester hours**
 Studies the physiology, morphology, behavior, classification and general biology of the insects. A collecting period will provide an opportunity for students to collect, mount and properly display insects for study. Taxonomic emphasis limited to order and family. Equivalent to five hours per week including laboratory.
Prerequisite: 50.110 or consent of instructor.
- 50.459 ORNITHOLOGY** **3 semester hours**
 General biology of birds and the study of bird identification in the field of song and sight. Studies birds of this region in relation of migration, time of arrival and nesting. Two hours lecture, Three hours laboratory per week. Some study off-campus may be required.
Prerequisite: 50.110 or consent of instructor.
- 50.462 PLANT ANATOMY** **3 semester hours**
 Outlines recent concepts of plant anatomy and historical consideration of classical researchers. Reviews structure, function, growth and morphogenesis of the vascular plants. Addresses composition and growth of meristems and the phenomena of subsequent tissue differentiation to increase appreciation of development events. Describes anatomical organization by developmental and comparative methods in order to explain important cell, tissue and organ relationships. Two hours lecture, 3 hours laboratory per week.
Prerequisite: 50.120.
- 50.463 BIOLOGICAL PHOTOGRAPHIC TECHNIQUES** **3 semester hours**
 Presents theory and practice of photography as applied to biology, including negative and print making, gross specimen photography, copying, transparencies, filmstrips, auto-radiography, nature work in closeups, photo-micrography, thesis illustrations and other special techniques. Two hours lecture, three hours laboratory per week. Additional laboratory hours may be required.

- 50.471 MEDICAL PARASITOLOGY** **3 semester hours**
 Presents the life history, physiology, taxonomy and morphology of parasites of medical importance to man. Special attention given to clinical aspects such as pathology, symptomology, diagnosis, prevention and treatment. Laboratory work stresses identification of parasitic disease through living and preserved material, the proper handling of specimens and methods of professional patient interviewing.
Prerequisite: 50.110 and 52.101 or 52.111.
- 50.472 CELL PHYSIOLOGY** **3 semester hours**
 Applies physical and chemical principles to cellular processes; biochemistry of cellular constituents; physiochemical environment; bio-energetics; intermediate metabolism. Three hours lecture/discussion per week.
Prerequisites: 12 hours of biology/chemistry 52.211 or 52.231; or consent of instructor.
- 50.481-489 ADVANCED SPECIAL TOPICS, BIOLOGY/ALLIED HEALTH SCIENCES** **3 semester hours**
 Presents an area of biology or allied health Three hours of credit may be applied to the biology major which requires the student have some background in biology.
Prerequisite: Determined by the instructor.
- 50.511 SYSTEMATIC ZOOLOGY** **3 semester hours**
 Study of the diversity of the animal world and the methods and principles used to examine this diversity. Five hours per week including laboratory.
- 50.521 SYSTEMATIC BOTANY** **3 semester hours**
 Morphology, taxonomy and geographical distribution of vascular plants. Five hours per week including laboratory.
- 50.531 DEVELOPMENTAL BIOLOGY** **3 semester hours**
 Study of progressive changes or transformations which occur during the existence of various plants and animals. Morphogenesis, differentiation, metabolism and genetics control are considered. Experimental studies in the laboratory utilize living material obtained from local region and living cells grown in the laboratory. Four hours/week including laboratory.
- 50.532 BIOCHEMICAL GENETICS** **3 semester hours**
 The study of macromolecular complexes, protein synthesis and the regulation of cellular activity. Three hours lecture/week.
- 50.551 CONSERVATION OF BIOLOGICAL RESOURCES** **3 semester hours**
 Emphasis is on the theory and practice of environmental conservation of biological resources and on applied ecology. Field trips will be made to observe practices of wildlife, forest and soil conservation. Five hours per week including laboratory.
- 50.552 LIMNOLOGY** **3 semester hours**
 Chemical and physical aspects of lakes, ponds and streams, and of the nature of their biota. Laboratory and field investigations will be included. Five hours per week including laboratory.
- 50.553 ANIMAL ECOLOGY** **3 semester hours**
 Animal environmental relationships considered at the levels of individuals, species, populations, the distribution and the role of animals in communities and ecosystems. Emphasis placed on population ecology. Laboratory and field studies include investigation of physical and biotic aspects of the environment. Five hours/week including laboratory.
- 50.554 PLANT ECOLOGY** **3 semester hours**
 Study of interrelationships among plants and their environments. Physical and biological factors plus human influences involved in the distribution, associations and successions of plant populations and communities are investigated. Five hours/week including laboratory.
- 50.557 BIOLOGY OF THE LOWER VERTEBRATES** **3 semester hours**
 Study of fishes, amphibians and reptiles embracing their anatomy and physiology, evolutionary history, zoogeography and behavior. Field and laboratory work includes collection and identification of local fauna. Six hours/week including laboratory.

50.571 ENDOCRINOLOGY**3 semester hours**

The individual glands of the endocrine system are studied with respect to their development, morphology, function, regulation and significance in integrating physiological activities of higher vertebrates. Three hours lecture per week.

50.572 COMPARATIVE ANIMAL PHYSIOLOGY**3 semester hours**

A comparison of higher vertebrate adaptations to various environments with respect to regulation of body fluid volume composition, core temperature and nitrogen metabolism. Four hours per week.

50.591 DIRECTED STUDY IN BIOLOGY**3 semester hours**

An opportunity to carry on an independent investigation in an area of biology in which the student has a particular interest. Such investigation is under the direction of a member of the Department of Biology. The student is encouraged to identify a problem, employ an experimental design, and analyze data collected therefrom. Study of pertinent literature is a requirement of the course.

50.592 MASTER OF EDUCATION THESIS**3 or 6 semester hours**

Independent research and the preparation of a formal thesis in partial fulfillment of the requirements for the degree of Master of Education in Biology.

50.593 MASTER OF SCIENCE THESIS**6 semester hours**

(See description of 50.592).

EARTH SCIENCE
(Code 51)

Master of Education Degree in Earth Science

Purpose: This specialization in earth science is designed to increase the student's mastery of the discipline as a contribution to his/her background for effective teaching and to enhance his/her academic expertise in research techniques, interpretation of data and the general format of scientific writing.

Prerequisites: Each applicant shall have completed 12 hours in earth science, which shall include astronomy, physical geology, meteorology and oceanography; background in chemistry, mathematics and physics adequate for the courses and research to be undertaken. Undergraduate deficiencies must be made up, without credit towards degree, prior to departmental recommendation for candidacy.

Requirements: A minimum of thirty (30) hours distributed as follows: 6-9 credits in education; 51.501, 51.590 and 51.599.

Electives: Fifteen (15) elective credits selected with consent of adviser from offerings in earth science, Marine Science Consortium or cognate areas.

Examination: Successful completion of a final comprehensive oral examination if required.

COURSE DESCRIPTIONS

51.451 FIELD TECHNIQUES IN EARTH SCIENCE**6 semester hours**

Intensive field and laboratory training in the use of equipment and techniques in the areas of geology, hydrology and cartography. Field trips are integral and vital segments of the course.

51.453 OPERATION AND PROGRAMMING OF THE PLANETARIUM**3 semester hours**

Methods in use of the planetarium as a teaching and motivational device, supervised training and practice in the operation, use and maintenance of planetarium equipment.

51.461 MINERAL RESOURCES: A Study of Metallic and Nonmetallic Mineral Deposits**3 semester hours**

A study of both metallic and nonmetallic mineral deposits, exploration, exploitation methods used and environmental problems encountered.

Prerequisite: 51.361.

51.501 THE GEOLOGY OF PENNSYLVANIA**3 semester hours**

A comprehensive study of the stratigraphy, structure and physiographic provinces of Pennsylvania, its glacial history and its mineral resources, both metallic and nonmetallic.

- 51.510 REGIONAL GEOMORPHOLOGY OF THE UNITED STATES** 3 semester hours
 This course represents a comprehensive study of various geomorphic regions in the United States. The parameters used for classifying the geomorphic provinces are discussed. Particular emphasis is placed upon the dominant geologic processes active within each province which are responsible for the topographic expression.
- 51.553 CELESTIAL ASTRONOMY** 3 semester hours
 An advanced course in astronomy designed to give the student the basic principles and contemporary concepts of the cosmos. Special topics on experimental and applied aspects of the field will be emphasized.
Prerequisites: 51.253 or approval by the instructor.
- 51.555 ADVANCED METEOROLOGY** 3 semester hours
 An advanced course in meteorology designed to give the student a background in contemporary problems and practices of meteorology. Special topics on experimental and applied aspects of the field will be emphasized.
Prerequisite: 51.255 or equivalent.
- 51.559 COASTAL OCEANOGRAPHY** 3 semester hours
 Study of such features of coastal environments as deltas, salt marshes, beaches and continental shelves. Attention will be given to effects of natural and man induced changes on coastal areas. Various coastal models will be examined.
- 51.562 PETROLEUM GEOLOGY** 3 semester hours
 An introduction to petroleum: its properties, origin, accumulation, exploration and exploitation.
- 51.570 HYDROGEOLOGY** 3 semester hours
 After a brief review of surface hydrology, the theory of ground water flow and well mechanics is dealt with, then the geologic aspects of ground water exploration and development are studied.
- 51.575 SOILS--THEIR PHYSICAL AND CHEMICAL PROPERTIES** 3 semester hours
 The basic soil forming factors will be related to their physical properties such as soil texture, structure and mineralogy. Chemical properties such as cation exchange capacity, aridity and soil water chemistry will be discussed. Various soil classification systems will be examined.
- 51.590 CONTEMPORARY TOPICS IN EARTH SCIENCE** 3 semester hours
 The study of a particular concept, problem, special topic or new ideas in any area of Earth Science. The topic will be chosen through common interests of the instructor and each student.
- 51.599 INDEPENDENT RESEARCH** 3 semester hours
 Independent directed research aimed toward studies of selected problems in earth science.

COURSES

MARINE SCIENCE

(Code 55)

Courses in marine science are available during summer months at the Marine Science Consortium at Lewes, Del., and Wallops Island, Va.

- 55.500 PROBLEMS IN MARINE SCIENCE**
- 55.510 OCEANOGRAPHY I (In-Service Teachers)**
- 55.511 OCEANOGRAPHY II (In-Service Teachers)**
- 55.520 MARINE MICROBIOLOGY**
- 55.530 COASTAL SEDIMENTATION**
- 55.540 ENVIRONMENTAL SCIENCE EDUCATION**
- 55.570 RESEARCH CRUISE--BIOLOGY, GEOLOGY, POLLUTION**

PHYSICAL SCIENCE

Master of Education Degree in Physical Science

Purpose: To expand and solidify the student's basic knowledge in a combination of physics, chemistry and related areas; to provide opportunity to become familiar with the newly developed programs for secondary schools; and to acquaint him/her with the literature in the field and increase the ability to use it effectively in research, instruction and self education.

Prerequisites: An undergraduate science emphasis which included at least one year each of chemistry, physics and mathematics.

Requirements: 1) At least 18 semester hours in chemistry and physics courses with no less than 6 semester hours in each field. 2) A research option consisting of either the preparation of a thesis as in (a) below, or the preparation of a master's paper as in (b) below.

(a) 65.599 Master's research paper on some aspect of physical science education, or 52.599 chemical research, or 54.599 physics research.

(b) 52.592 Master's paper in chemistry or 54.592 master's paper in physics.

Elective: Additional semester hours in education, chemistry, and/or physics, (with approval of the program adviser) in related areas such as mathematics or earth & space science to provide a total of at least 30 semester hours.

CHEMISTRY

(Code 52)

COURSE DESCRIPTIONS

52.441 BIOCHEMISTRY 3 semester hours

Chemistry of proteins, nucleic acids, lipids, carbohydrates; intermediary metabolism; introduction to enzyme chemistry. Three hours class/week.

Prerequisite: 52.232, 52.312 or concurrent.

52.501 ENVIRONMENTAL CHEMISTRY 4 semester hours

Chemistry of the earth, air and water, with emphasis on the impact of human activities on each. Natural resources, environmental pollutants and chemical approaches to conservation are discussed. Laboratory experiments emphasize the methods of analysis of various substances in water, air and soils. Three hours lecture and three hours laboratory/week.

Prerequisite: One year each of college-level chemistry, physics and mathematics.

50.502 CHEMISTRY PROJECT LABORATORY 2 semester hours

Methods and projects for innovative laboratory experiences in high school and middle school chemistry laboratories. Emphasis is placed on applications of standard laboratory procedures in project-oriented settings. Examples of lecture demonstrations are also shown. One hour lecture and three hours laboratory/week.

Prerequisite: One year each of college-level chemistry, physics and mathematics.

52.511 ESSENTIALS OF PHYSICAL CHEMISTRY 3 semester hours

Physical chemical topics which are required for more advanced courses. Topics include the kinetic theory of gases, the structure of the solid state, properties of liquids and solutions, thermodynamics, kinetics and chemical bonding.

Prerequisite: One year each of college-level chemistry, physics and mathematics.

52.521 POLYMER CHEMISTRY 3 semester hours

Chemistry of synthetic and natural macromolecules commonly used in today's society. Synthesis of polymeric materials, methods of characterizing polymers, solid and liquid state properties and polymer technological applications are discussed.

Prerequisite: One year of organic chemistry and one semester of physical chemistry or 52.511.

52.522 CHEMICAL EVOLUTION AND THE ORIGINS OF LIFE 3 semester hours

Current theories of chemical evolution from an interdisciplinary perspective. Theories of stellar evolution, nuclear synthesis, cosmic abundances of the elements and prebiotic syntheses of organic compounds are discussed. Arguments concerning the origins of life and exobiology based on biological, geological, astronomical and physical chemical sources are reviewed.

Prerequisite: One year of organic chemistry and one semester of physical chemistry or 52.511.

52.523 THE CHEMISTRY OF FOODS **3 semester hours**

Chemistry of compounds which are required for maintenance of life. Chemical and physical properties of foods are discussed with particular emphasis on methods used to detect, quantify and determine the molecular structure of primary nutrients. Food additives are also discussed.

Prerequisite: One year of organic chemistry and one semester of physical chemistry or 52.511.

52.592 MASTER'S PAPER IN CHEMISTRY **3 semester hours**

A formal paper on some aspect of chemistry based on library or laboratory study. This paper should represent the culmination of the individual student's graduate work.

Prerequisite: Admission to candidacy.

PHYSICS
(Code 54)

COURSE DESCRIPTIONS

54.421 SOLID STATE PHYSICS **3 semester hours**

Physical properties of matter in the solid state. Basic quantum concepts, crystal structure, electrons in metals, electrical conductivity, semi-conductors, band theory and the p-n junction. Dielectric and magnetic properties of matter.

54.422 THERMODYNAMICS **3 semester hours**

Concepts and principles of classical thermodynamics. Thermodynamics of simple systems. Introduction to kinetic theory and statistical thermodynamics.

54.450 INTRODUCTION TO QUANTUM MECHANICS **3 semester hours**

An introduction to the fundamentals of quantum and wave mechanics beginning with a review of quantum radiation theory and proceeding through the Schrodinger presentation. Treatment includes one dimensional potential function, the harmonic oscillator and the hydrogen atom.

Prerequisites: Physics 54.311, 314; Mathematics 53.322.

54.480 HISTORY OF PHYSICAL SCIENCE **3 semester hours**

An account of the development of physical science from the time of Copernicus to the present with attention to the nature of scientific investigation, assumptions, constructs and models and the interaction of science with other thinking.

54.501 MATHEMATICS FOR TEACHERS OF PHYSICAL SCIENCE **3 semester hours**

Basic mathematical techniques of physics and chemistry with applications appropriate to teachers of the physical sciences. Methods of trigonometry, calculus and vectors at a level to follow first-year college mathematics.

54.510 ELEMENTS OF CLASSICAL MECHANICS AND WAVES **3 semester hours**

A review and extension of basic concepts and methods in the mechanics of particles and objects, wave motion and kinetic theory.

54.511 ELEMENTS OF CLASSICAL ELECTRICITY AND OPTICS **3 semester hours**

A review and extension of basic concepts and methods in electricity and magnetism and optics.

54.512 ELEMENTS OF MODERN ATOMIC AND NUCLEAR PHYSICS **3 semester hours**

A review and application of the modern concepts of relativity, quanta, radiation and wave mechanics to atomic and nuclear physics.

54.520 APPLIED ELECTRONICS **3 semester hours**

The construction and characteristics of electronic devices such as amplifiers, oscilloscopes, meters and transducers and their use in the acquisition, processing and display of scientific data. Theory integrated with laboratory experience.

54.530 MODERN ADVANCED LABORATORY **3 semester hours**

Laboratory work with modern instrumentation of intermediate sophistication in a variety of areas such as nuclear radiation, magnetic field effects, vacuum, mass spectroscopy, nuclear magnetic resonance, lasers and interferometry.

- 54.540 CURRENT APPLICATIONS OF MODERN PHYSICS** 3 semester hours
Application of principles and methods of modern physics to selected current topics of significance and probable classroom interest. Examples: lasers and holography, nuclear energy, cosmology and solid state semiconductors.
- 54.550 MATHEMATICAL METHODS OF THEORETICAL PHYSICS** 3 semester hours
Development and use of mathematical concepts and techniques appropriate to further study in graduate-level physics. Vector calculus, differential equations, complex variables, special functions. Fourier analysis, etc.
- 54.552 THEORETICAL PHYSICS FOR TEACHERS** 3 semester hours
Development of more sophisticated theoretical aspects of such basic areas of physics as electromagnetic radiation, mechanics, particles and waves, quantum mechanics, fields, etc.
Prerequisite: 54.550 or equivalent.
- 54.560 RECENT DEVELOPMENTS IN HIGH SCHOOL PHYSICS** 3 semester hours
A consideration of modern programs including PSSC Physics and Harvard Project Physics, covering course content, laboratory work, philosophy and method of teaching.
- 54.561 RECENT DEVELOPMENTS IN JUNIOR HIGH SCHOOL SCIENCE** 3 semester hours
A consideration of modern programs including ISCS and IPS, covering course content, laboratory work, philosophy and method of teaching.
- 54.570 INDEPENDENT STUDY** 1-3 semester hours
Individual investigation (laboratory or theoretical) of an area of special interest following a plan consistent with the resources of the Department and approved before registration by a supervising professor. Number of credits depends upon the magnitude of the study.
- 54.592 MASTER'S PAPER IN PHYSICS** 3 semester hours
An extended paper presenting, from a novel aspect, the results of a study in depth of a topic or area in physics. May include laboratory work. Pre-registration approval must be secured from a supervising professor.
- 54.599 PHYSICS RESEARCH** 3-6 semester hours
Experimental and/or theoretical research leading to a thesis which shows new knowledge or original scholarship on the part of the student. Pre-registration approval must be secured from a supervising professor. Number of credits depends upon the complexity and magnitude of the project.

MATHEMATICS (Code 53)

Master of Education Degree in Mathematics Education

Purpose: To expand the scholarship and professional competence of teachers and supervisors of mathematics by solidifying basic knowledge in content area, becoming familiar with related literature and increasing the ability to use this information effectively in research, instruction and self-education.

Prerequisites: For elementary or middle school teachers or supervisors--18 semester hours in mathematics, approved by the graduate faculty.

For secondary or middle school teachers or supervisors--the equivalent of an undergraduate major in mathematics which must include at least 30 semester hours in mathematics.

Deficiencies are to be corrected without graduate credit.

Requirements: A minimum of 30 semester hours of graduate courses including 53.501, at least three semester hours from 53.502, 53.517, 53.531 or 53.541 and at least three semester hours from 53.575, 53.585 or 53.586.

Electives: Other mathematics electives may be selected from 53.411, 53.421, 53.422, 53.451, 53.461, 53.471, 53.472, 53.504, 53.510, 53.512, 53.570, 53.572, 53.590, 53.591 and 53.592. One additional education course may be selected from 60.511, 60.515, 60.550, 60.561, 48.511 and 48.576. No more than four 400 level courses (12 semester hours) may be applied to a degree program.

Examinations: Each student will be required to demonstrate his/her competence in mathematics education by taking a written and/or oral comprehensive examination given near the end of his/her program.

Thesis: A thesis (3-6 credits) is optional and consists of original research in mathematics or mathematics education.

Master's Paper: A departmental paper (3 credits) is optional and is an expository paper giving an in-depth survey of an area of current research in mathematics education.

COURSE DESCRIPTIONS

Senior Level Undergraduate Courses Open to Graduate Students

(For course descriptions, see Undergraduate Bulletin)

| | | |
|---------------|--------------------------------------|-------------------------|
| 53.411 | INTRODUCTION TO GROUP THEORY | 3 semester hours |
| 53.421 | ADVANCED CALCULUS | 3 semester hours |
| 53.422 | COMPLEX VARIABLES | 3 semester hours |
| 53.451 | INTRODUCTION TO TOPOLOGY | 3 semester hours |
| 53.461 | NUMBER THEORY | 3 semester hours |
| 53.471 | ELEMENTARY NUMERICAL ANALYSIS | 3 semester hours |
| 53.472 | MATRIX COMPUTATION | 3 semester hours |
| 53.491 | SPECIAL TOPICS IN MATHEMATICS | 3 semester hours |

Graduate Level Courses

| | | |
|---------------|---|-------------------------|
| 53.501 | FOUNDATIONS OF MATHEMATICS EDUCATION | 3 semester hours |
|---------------|---|-------------------------|

A review of broad goals and specific objectives for mathematics instruction and the psychology upon which one may base his/her instructional program. Special consideration will be given to the theories of psychologists such as Piaget, Dienes, Bruner and Gagne as they pertain to mathematics learning.

| | | |
|---------------|---|-------------------------|
| 53.502 | MODERN MATHEMATICS FOR THE ELEMENTARY SCHOOL TEACHER | 3 semester hours |
|---------------|---|-------------------------|

The emphasis in this course is the study of the structure of selected topics from elementary and middle school mathematics. Modern methods for presenting elementary concepts will be introduced to develop more advanced topics appropriate for inclusion in the elementary/ middle school curriculum. The review of recent research concerned with the teaching of these topics is included.

| | | |
|---------------|-------------------------------|-------------------------|
| 53.504 | HISTORY OF MATHEMATICS | 3 semester hours |
|---------------|-------------------------------|-------------------------|

An historical summary of the development of mathematics from the Ancient Near East through modern mathematics including a study of related problems. Emphasis will be placed on the continuing change which takes place in mathematics and on the active role of mathematics and mathematicians in shaping culture.

| | | |
|---------------|-------------------------|-------------------------|
| 53.510 | ABSTRACT ALGEBRA | 3 semester hours |
|---------------|-------------------------|-------------------------|

A study of algebraic systems such as groups, rings and fields. The notion of a category will be introduced early so that each algebraic system can be studied in a universal way.

| | | |
|---------------|-----------------------|-------------------------|
| 53.512 | LINEAR ALGEBRA | 3 semester hours |
|---------------|-----------------------|-------------------------|

A study of vector spaces over fields, linear transformations, matrices systems of linear equations, inner product spaces, invariant subspaces, eigenvectors, canonical forms and related topics.

| | | |
|---------------|---------------------------------------|-------------------------|
| 53.517 | TOPICS IN ALGEBRA FOR TEACHERS | 3 semester hours |
|---------------|---------------------------------------|-------------------------|

The emphasis in this course is the study of the structure of selected topics from middle and secondary school algebra. Modern methods of presenting elementary concepts are introduced to develop more advanced topics appropriate for inclusion in the public school curriculum. The review of recent research concerned with the teaching of algebra and a critical study of the more influential curriculum programs of both the past and present are included.

- 53.531 TOPICS IN GEOMETRY FOR TEACHERS** 3 semester hours
Includes a critical examination of topics currently taught in secondary geometry, with discussion of topics in geometry and topology relevant to high school courses.
- 53.541 STATISTICAL APPLICATIONS** 3 semester hours
An in-depth study of statistical procedures used in educational research designs. Procedures discussed include the use of correlation and regression analysis, t-tests, chi-square, analysis of variance and the bi-nominal test.
- 53.570 COMPUTER SCIENCE** 3 semester hours
An introduction to programming language and computation on a digital computer. In addition, topics such as abstract machines, algorithms and unsolvability may be considered.
- 53.572 MATHEMATICAL OPTIMIZATION** 3 semester hours
An introduction to the process of mathematical modeling, with a wide variety of examples to be presented. Emphasis will be placed on linear programming and game theory to related optimization models. Extensive applications from the social, life and management sciences will be included. The computer will be used as a computational tool throughout the course.
- 53.575 COMPUTER APPLICATIONS FOR TEACHERS** 3 semester hours
A course designed specifically for teachers of academic disciplines where computer utilization is relevant. This course functions as a workshop, including direct interactive terminal experience with the computer. The purpose of this workshop is (1) to familiarize the participant with the computer and its application in education and (2) to have each participant develop instructional units employing the use of the computer in his/her specific area of academic interest.
- 53.585 INSTRUCTIONAL TECHNIQUES FOR SPECIFIC MATHEMATICS OUTCOMES** 3 semester hours
This course is an in-depth study of the procedures used for teaching mathematical concepts, computational skills and the processes of problem solving, logic and proof and their relationships to recent curriculum developments. In a workshop setting, participants will prepare instructional materials related to the above outcomes for use in their own classroom.
- 53.586 INDIVIDUALIZED INSTRUCTION IN MATHEMATICS** 3 semester hours
This course will emphasize the design and strategy of individualizing instructional systems in school mathematics. As the *workshop* stresses the practical aspects of experience, students will develop, evaluate and adapt instructional materials for use in their own classrooms.
- 53.590 RESEARCH PAPER IN MATHEMATICS EDUCATION** 3-6 semester hours
- 53.591 MASTER'S PAPER IN MATHEMATICS EDUCATION** 3 semester hours
- 53.592 SPECIAL TOPICS** 3 semester hours

5. COLLEGE OF PROFESSIONAL STUDIES

5.1 SCHOOL OF EDUCATION

EDUCATIONAL FOUNDATIONS

COURSE DESCRIPTIONS

(Code 60)

- 60.451 PUPIL PERSONNEL SERVICES IN THE PUBLIC SCHOOL** 3 semester hours
A comprehensive view of pupil personnel services in elementary and secondary schools; school attendance, school health programs, pupil transportation, psychological services, guidance services.
- 60.501 MAJOR PHILOSOPHIES OF EDUCATION** 3 semester hours
Modern educational problems and trends interpreted in the light of philosophical viewpoints; study of primary sources of concepts and philosophies which have influenced and are influencing education.
- 60.502 SCHOOL AND SOCIETY** 3 semester hours
Effects on the school program of social class, family and community pressures and changing patterns and standards of life in our society. The course aims to foster understanding of these pressures and patterns so as to enable the teacher to work effectively in encouraging the good and reducing the harmful impacts of social forces in relationships of children.
- 60.503 HISTORY OF AMERICAN EDUCATIONAL THEORY** 3 semester hours
Historical foundations of American educational theory with emphasis on individuals and schools of thought which have influenced and are influencing education in America.
- 60.505 COMPARATIVE EDUCATION** 3 semester hours
Educational ideas and practices of various countries of the world are examined for their impact upon our culture and education. Particular attention is given to the relationship of European educational programs to the American philosophy and practice of public education.
- 60.512 SELECTION AND USE OF AUDIO-VISUAL MATERIALS IN EDUCATION** 3 semester hours
Advanced study of the role of media in the educative process. Includes the critical assessment of that role, the selection of equipment and materials for optimum utility, a review of contemporary literature in the field and a production component which involves advanced work in television, transparencies, slide-tape and computer-assisted instruction.
- 60.520 GUIDANCE AND COUNSELING FOR EXCEPTIONAL CHILDREN** 3 semester hours
A study of the needs of exceptional children in the public schools (including the academically talented); guidance and counseling techniques for teachers and guidance counselors in meeting those needs; guidance and counseling for exceptional children related to the total guidance counseling program.
- 60.530 GUIDANCE IN THE ELEMENTARY SCHOOLS** 3 semester hours
Concepts and techniques of the guidance process in the elementary school; behavioral and developmental problems; releasing creative capacities of children.
- 60.533 MEASUREMENT AND EVALUATION IN THE ELEMENTARY SCHOOL** 3 semester hours
Construction, administration and interpretation of group tests of intelligence, achievement, aptitude and personality in elementary schools.
- 60.550 PROBLEMS IN GUIDANCE AND COUNSELING** 3 semester hours
Philosophy of guidance; history of the guidance movement; guidance needs of children and adolescents; methods of gathering data; nature of school records; interpretation of test results and inventories; use of occupational information and data; interviewing and counseling techniques.

- 60.551 TECHNIQUES IN COUNSELING** 3 semester hours
Theories, principles and practices of counseling; development and use of counseling materials such as test results, educational information and other pertinent materials.
- 60.552 ORGANIZATION AND SUPERVISION OF GUIDANCE** 3 semester hours
Types of guidance organizations used in schools and their effectiveness in providing for good guidance.
- 60.561 MEASUREMENT AND EVALUATION IN THE SECONDARY SCHOOL** 3 semester hours
Construction, administration and interpretation of group tests in intelligence, achievement, aptitude and personality in secondary schools.
- 60.581 INDEPENDENT STUDY IN EDUCATION** 1-6 semester hours
Designed for teachers in public schools as an opportunity to pursue in-service projects in cooperation with a faculty adviser. The teacher submits a "learning contract" to an adviser designated by the department chairperson. The contract details the academic goals and includes a description of the project in its relation to the goals, a reading list, the proposed credit, and a description of a proposal for a final report. Permission to register for the course is granted upon approval of the contract. Evaluation is based on the written report and an examination by a committee appointed by the adviser and/or department chairperson. Students may register at any suitable time; the duration of the experience is flexible.
- 60.583 SEMINAR IN EDUCATION** 1-6 semester hours
Designed to provide opportunity for a group of teachers engaged in a common in-service project to use the resources of the college and its faculty in connection with the project. A "learning contract" similar to that of 60.571 is submitted by the group as a basis for permission to register. Papers related to aspects of the project and to the literature designated in the contract are presented by the members for discussion and criticism in seminar meetings held under direction of a faculty member. Evaluation is based upon the seminar reports and a final comprehensive written report by the student.
- 60.591 FOUNDATIONS OF EDUCATIONAL RESEARCH** 3 semester hours
A study of the methods and techniques used in educational research; the development and interpretation of statistical data and the application to professional problems.

ELEMENTARY AND EARLY CHILDHOOD EDUCATION

Master of Education Degree

Elementary Education

Purpose: This program is intended to enhance the professional competence of the individual as a teacher and leader through integrated learning experiences in study of the child, the curriculum, current practice and the teacher's academic field.

Prerequisite: Instructor Level I certification for teaching in the elementary school.

Required: Educational Foundations-60.501, 60.591; Master's Research Paper or a departmental paper in elementary education; six to 12 semester hours in courses pertinent to a professional specialization or in an academic discipline. (The general degree requirements are stated in Section 2.23)

Electives: Electives to complete the minimum degree program may be selected with approval of the adviser from several departments.

Master of Science Degree

in Early Childhood Education

Purpose: This program is intended to enhance the professional competence of the individual as a teacher of young children through integrated learning experiences in the study of the young child, the curriculum, current practice and the teacher of young children's areas of interest. Individuals not holding any type of certification can obtain the N-K-3 certificate. The program also has an option that enables the teacher with a K-6 certification to obtain an N-K-3 (early childhood education) certification.

Required courses - 62.522, 62.523, 52.590, 62.591, 62.592, 62.593; Master's Research Paper departmental paper, a comprehensive examination or a comprehensive curriculum project in early childhood education; six credits in foundation courses; and six credits in courses related to this professional specialization. N-K-3 certification will be granted to those students who complete 36 semester hours of graduate study of which six hours of graduate work was of a field experience/practicum nature. Students selecting to seek N-K-3 certification are required to complete 62.594. Practicum in Early Childhood Education.

Elective: Electives to complete the minimum degree program or the degree program with the N-K-3 certification may be selected with approval of adviser from several departments.

Students seeking admission to candidacy must complete a written screening examination.

ELEMENTARY AND EARLY CHILDHOOD EDUCATION

COURSE DESCRIPTIONS

(Code 62)

62.410 WORKSHOP IN PRESCHOOL EDUCATION **1-6 semester hours**

A course designed for both teachers in-service and upper-level undergraduates. Study of selected areas in early childhood education. Individual or group study of subjects of interest or concern in teaching.

62.506 URBAN EDUCATION FOR THE DISADVANTAGED **3 semester hours**

A course designed to increase awareness of problems of the urban educational system. The course emphasizes a growth of sensitivity to the disadvantaged youngster, in-depth examination of current research findings in each area studied, teaching strategies and resources and approaches to resolve major problems. Discussion of polarization on critical problem areas.

62.507 USING NEWSPAPERS IN THE CLASSROOM **3 semester hours**

An activity centered course which provides the teacher with an orientation to the use of the newspaper in various subject areas. Opportunities for the development of learning experiences will be provided.

62.514 HOME, SCHOOL AND COMMUNITY RELATIONS **3 semester hours**

An introductory course in public relations, with special reference to elementary school, in which a philosophy of partnership between home, school and community is developed and principles, attitudes and techniques to encourage community sharing in the planning of and assuming responsibility for good schools are considered.

62.520 BRITISH INFANT SCHOOL EDUCATION AND THE INTEGRATED DAY **3 semester hours**

A course designed primarily for elementary education students with emphasis on the philosophy, composition and daily routine of headmasters and assistants, teachers and auxiliary personnel, and pupils and their parents. In addition, family grouping and the integrated day methodology will be stressed as research findings and recommendations of the Plowden Report concerning education in England. And finally, the implications and applications of the British program in the United States will be explored and plans for implementation of adaptable activities and planning will be undertaken.

62.521 ELEMENTARY SCHOOL CURRICULUM **3 semester hours**

A study of problems related to development, experimentation and improvement of curriculum practices in the elementary school.

62.522 CURRICULUM TRENDS IN EARLY CHILDHOOD EDUCATION **3 semester hours**

A study of the changing goals and the developing programs required to meet the needs of children who enter school with increased experiential background.

62.523 PRACTICES IN TEACHING THE YOUNG CHILD **3 semester hours**

An examination of current practices in teaching the young child with emphasis on the developmental aspects of childhood as they relate to the school program.

- 62.524 KNOWLEDGE AND THE CURRICULUM IN THE ELEMENTARY SCHOOL** 3 semester hours
A study of the place of knowledge in developing a curriculum. The emphasis is on content as it is influenced by innovative practices.
- 62.525 CURRENT PRACTICES IN ELEMENTARY SCHOOL SCIENCE** 3 semester hours
A study of the problems resulting from the increased interest of children in science and the need for science instruction in the elementary grades; methods and materials for nurturing these interests and for implementing science instruction within the limits of the interests of children are presented and evaluated.
- 62.527 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL** 3 semester hours
An examination of contemporary trends and current research in the disciplines of the social sciences as a basis for development of a conceptual framework for a social studies program.
- 62.528 LANGUAGE ARTS IN THE MODERN SCHOOL** 3 semester hours
A study of problems related to instruction in various aspects of the language arts; the place of the language arts in the curriculum; current research and its practical application.
- 62.529 LITERATURE FOR CHILDREN IN THE ELEMENTARY GRADES** 3 semester hours
A survey of ways that children may encounter literature and methods that are effective in the encounter. Students become acquainted with children's books, work with children in a story-telling experience, discover ways other than through reading by which children may experience literature.
- 62.530 AWARENESS OF ENVIRONMENTAL EDUCATION PROBLEMS FOR THE ELEMENTARY SCHOOL** 3 semester hours
This course is designed to help the classroom teacher organize environmental education activities. Areas of content; problem solving activities; material sources; the use of resources; curriculum building; development of an awareness of environmental problems and possible solutions to them. Camping and a fee are required.
- 62.531 ENVIRONMENTAL EDUCATION AWARENESS ACTIVITIES AND MATERIALS FOR THE ELEMENTARY SCHOOL** 1-3 semester hours
An opportunity for students to broaden their experiences in environmental education. Camping and a camp fee are required.
Prerequisite: 62.530.
- 62.533 VALUES CLARIFICATION IN THE ELEMENTARY SCHOOL** 3 semester hours
A course designed primarily for elementary education students in which the emphasis is on the philosophy and composition of values clarification as it applies to the elementary school child. Practical and theoretical aspects will be stressed as well as techniques for helping children begin to build a value system by which they can live. Emphasis will be placed on methods which aid the teacher in becoming aware of the emotional needs of children, humanizing of the education process, and improvement of working/learning relationships with others.
- 62.534 CREATIVITY FOR TEACHERS** 3 semester hours
This course is intended to help teachers to become more creative in their approaches to their students and subject matter. Emphasis is on understanding creative process, recognizing the creative child and development of the creative potential of student and teacher.
- 62.539 CURRENT TOPICS IN ELEMENTARY EDUCATION** 3 semester hours
An investigation of current thinking and research in aspects of elementary education.
- 62.581 INDEPENDENT STUDY ELEMENTARY EDUCATION** 1-6 semester hours
Comparable to 60.581.
- 62.583 SEMINAR IN ELEMENTARY EDUCATION** 1-6 semester hours
Comparable to 60.583.

- 62.590 CURRENT RESEARCH AND DEVELOPMENT IN EARLY CHILDHOOD EDUCATION** 3 semester hours
An examination of recent literature and experimental work in the field of early childhood education--pre-school, kindergarten, primary. Characteristics of the learner, learning environment, learning materials and innovative programs. These departmental paper and/or curriculum projects are initiated in this course.
- 62.591 LEARNING AND DEVELOPMENT OF THE YOUNG CHILD** 3 semester hours
A survey of child development and its relationship to the early school years. The development of the young child from ages two through eight.
- 62.592 IDENTIFICATION AND PRESCRIPTION OF THE NEEDS OF YOUNG CHILDREN** 3 semester hours
A course in the techniques of identifying of the physical, emotional, social and mental needs of young children and developing appropriate prescriptive procedures.
- 62.593 ORGANIZATION AND ADMINISTRATION OF EDUCATIONAL PROGRAMS FOR YOUNG CHILDREN** 3 semester hours
A study of the various programs in early childhood education with emphasis on the expansion and administration with regard to the selection of personnel, evaluative techniques and curriculum procedures, school law, finance and other appropriate subjects.
- 62.594 PRACTICUM IN EARLY CHILDHOOD EDUCATION** 6 semester hours
An individually prescribed course of study and activity based on (but not limited to) previous experience and academic achievement. Consent of program coordinator and department chairperson required.
- 62.595 INDIVIDUALIZED INSTRUCTION--PRINCIPLES AND PRACTICES FOR THE CLASSROOM** 3 semester hours
An analysis of practices, principles and procedures for individualizing instruction. Experiences include procedures for adapting conventional instructional modes to individualized settings.
- 62.599 MASTER'S RESEARCH PAPER** 3 semester hours
Student demonstrates ability to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern to him/her. The problem area selected for the research project must be related to the curriculum which the student is pursuing.

READING
(Code 63)

**Master of Education Degree
in Reading**

Purpose: This program is intended to prepare experienced teachers to become reading supervisors or specialists, through learning experiences in diagnostic and remedial techniques, insights in psychology of learning, means of stimulating enjoyment of reading, training in supervision procedures and clinical practice.

Prerequisites: Level I teacher certification; a basic course in teaching of reading.

Required: Departmental paper.

Elective: Elective courses from disciplines other than reading may be selected dependent upon the needs and educational background of the student.

Examination: A comprehensive written and/or oral examination is a graduation requirement in this program.

COURSE DESCRIPTIONS

- 63.540 PROBLEMS IN THE TEACHING OF READING** 3 semester hours
On examination of trends in reading instruction; development of competence in the use of different approaches to the solution of reading problems.

- 63.541 PRESCRIPTION FOR AND IDENTIFICATION--DIAGNOSIS OF REMEDIAL READING DIFFICULTIES** 3 semester hours
 Diagnostic and remedial procedures emphasizing both standardized and informal techniques; analysis of extreme reading disabilities; preparation of a case study; stress of corrective and remedial procedures and a working knowledge of how to write prescriptions for clients with reading problems.
- 63.542 PSYCHOLOGICAL ASPECTS OF READING** 3 semester hours
 Psychological foundations of learning theories; their relationship to reading; their subsequent effect on reading achievement.
- 63.543 READING CLINIC I** 3 semester hours
 Clinical experience in the diagnosis and remediation of reading and/or learning disabilities; diagnosis, development, administration and evaluation of individual programs; case studies.
Prerequisites: Six hours selected from 63.541; 63.548; 63.542 and consent of director.
- 63.544 READING CLINIC II** 3 semester hours
 Clinical experience in the development of reading skills and comprehension with persons who may or may not have remedial and/or learning disabilities. Combined with 63.543 gives experience with all levels. Continued evaluation of individual programs; case studies.
Prerequisites: Six hours selected from 63.541, 63.542, 63.548 and consent of director.
- 63.545 ORGANIZATION, ADMINISTRATION AND SUPERVISION OF READING PROGRAMS (K-12)** 3 semester hours
 A course for the reading personnel, specialists, supervisors and administrators who will or may become involved with the supervising and programming responsibilities of a reading program. A discussion of types of federal and/or School reading programs as well as a summary of the requirements of ESEA Titles, and how to write a federal program are an integral part of this course.
- 63.546 READING IN THE CONTENT AREAS** 3 semester hours
 Designed for teachers in grades four to 12. Procedures and materials presented in word perception, special reading and study skills, vocabulary development, dictionary skills and library techniques.
- 63.547 SEMINAR IN READING** 3 semester hours
 Independent work in the study of recent research in the field of reading as it is applied to the departmental paper. New curricula, materials and procedures of teaching reading.
- 63.548 DIAGNOSIS AND TREATMENT OF LEARNING DISABILITIES IN RELATION TO READING** 3 semester hours
 This course is designed for the reading specialist and/or reading supervisor. Language disorders as a factor in learning. Perceptual abilities, i.e., auditory and visual modalities for learning disabilities. Recent research in the area of learning disabilities.
- 63.549 TEACHING READING TO THE HEARING IMPAIRED/ LANGUAGE-HANDICAPPED CHILD** 3 semester hours
 Principles, practices, methods and materials of teaching reading to the hearing impaired/ language handicapped; discussion, reading, clinic practices with clients and library research.

SECONDARY EDUCATION

(Code 65)

COURSE DESCRIPTIONS

- 65.560 DEVELOPMENT OF THE SECONDARY SCHOOL CURRICULUM** 3 semester hours
 Problems related to development, experimentation and improvement of curriculum practices in the secondary school.

65.530 INSTRUCTIONAL DEVELOPMENT IN MIDDLE AND JUNIOR HIGH SCHOOLS**3 semester hours**

Inquiry into the role of early secondary education by analyzing historical trends, curricular patterns, instructional designs and personnel structure of this organizational unit. Emphasis on teacher behavior, student values and attitudes and instructional designs peculiar to the junior high, middle and intermediate schools.

65.571 EVALUATING TEACHING IN MIDDLE AND SECONDARY SCHOOLS**3 semester hours**

Improvement of instruction through self analysis. Micro-teaching techniques; planning dimensions; self-appraisal techniques. Designed for teachers, with special reference to the work of cooperating teachers.

65.581 INDEPENDENT STUDY IN SECONDARY EDUCATION**1-6 semester hours**

See 60.581.

65.583 SEMINAR IN SECONDARY EDUCATION**1-6 semester hours**

See 60.583.

65.599 MASTER'S RESEARCH PAPER**3 semester hours**

Student demonstrates the ability to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern to him/her. The problem area selected for the research project must be related to the curriculum which the student is pursuing.

(Code 60 and 65)

SUPERVISION**Specialization for the Supervisor of Curriculum and instruction (N-12) Certificate Program**

Purpose: The supervisor of curriculum and instruction program is designed for candidates seeking certification with district-wide responsibilities and includes designing, coordinating, improving, evaluating and extending instruction from N-12.

Prerequisites: (1) Candidates must provide proof of a Pennsylvania teaching certificate.

(2) Candidates must provide evidence of at least five years of teaching experience. (Experience on an Emergency Certificate or an Interim Certificate is not acceptable).

Required: Candidates must complete a minimum of thirty (30) graduate credits from the seven areas of competency.

(1) Curriculum and Instruction-Theory, Design and Development

(2) Curriculum and Early Childhood, Elementary, Middle and Secondary Education.

(3) Research

(4) Supervision, Management and Administration

(5) Group Dynamics

(6) School Law and Finance

(7) Practicum-Field Experience

Specialization for the Subject Area Supervisory (K-12) Certificate Program

Purpose: This program is designed for the person with primary responsibility of supervising and directing the activities of professional and non-professional employees in given fields.

Prerequisites: (1) Concentration in area for which certification is sought. (2) At least five years of experience in the field for which certification is sought. (Valid certificate in the field.)

Required: A minimum of 15 semester hours of graduate courses from the following areas: (1) School Supervision; (2) School Law and Finance; (3) Group Dynamics; (4) Research Techniques; (5) Curriculum Development.

COURSE DESCRIPTIONS

- 65.541 THE DEPARTMENT CHAIRPERSON: A WORKSHOP** **1-3 semester hours**
 The workshop gives department chairpersons and those aspiring to be department chairpersons an opportunity to investigate options of methods, strategies and materials in the role. Emphasis placed on human relations, organization, supervision, curriculum and curriculum revision.
- 65.573 INTRODUCTION TO EDUCATIONAL ADMINISTRATION** **3 semester hours**
 An examination of the functions and tasks of educational administration is the primary focus of this course. Issues include the evolving school setting, the meaning, development and work of school administrators, educational systems analysis, school personnel administration, administrative and organizational behavior and career ladders in educational administration.
- 65.576 SCHOOL LAW AND FINANCE** **3 semester hours**
 Consideration is given to the limitations established by local, state and federal law related to the interactions of school personnel. Special attention to recent changes resulting from judicial decisions. Fiscal control of education with emphasis on local budgetary problems is a major objective.
- 65.577 EDUCATIONAL RESEARCH FOR SUPERVISION** **3 semester hours**
 Consideration is given to the development of ability to read and interpret educational research and apply it to a school situation. Conclusions concerning curriculum content and teaching strategies designed for the improvement of the educational process are emphasized.
- 65.578 GROUP PROCESSES IN SUPERVISION** **3 semester hours**
 Emphasis is given to group processes, communication in the group and organizational goals related to educational supervision. The focus is on knowledge of and practice in laboratory experiences in group processes and applicability to supervision. These experiences are intended to provide opportunities for experimenting with and evaluating leadership skills and provide a means of promoting creativity and initiative.
- 65.579 SUPERVISION OF CURRICULUM AND INSTRUCTION** **3 semester hours**
 Through an examination of the objectives, techniques, and materials of staff supervision, this course defines the supervisory function directed toward the improvement of instruction. Emphasis is placed upon the interrelationships between the humanistic aspects of education and democratic administrative behavior. Roles of contemporary supervision with respect to educational quality assessment, inter-personal relations and the catalytic role of the supervisor are studied.
- 65.580 SEMINAR IN SUPERVISION OF CURRICULUM AND INSTRUCTION** **3 semester hours**
 This is a field-based practicum experience that places the candidate for a Curriculum and Instruction N-12 supervisory certificate in a cooperative relationship with an individual in a school setting responsible for the overall planning coordination, implementation and evaluation of a school system curricular and instructional program. The experience is competency based and the experiences of the practicum are shared and discussed in a weekly seminar. Evaluation of the individual candidate's performance in the experience is based on achievement of specified competencies.
- 65.584 CURRICULUM AND INSTRUCTIONAL THEORY, DESIGN AND DEVELOPMENT** **3 semester hours**
 This is a competency-based course consisting of elements providing a base for the student in relevant theory associated with the activity of curriculum development. A review, critique and evaluation of current theoretical positions and design methodology are an integral part of the course.
- 65.585 CURRICULUM AND INSTRUCTIONAL EVALUATION** **3 semester hours**
 Curriculum and Instructional Evaluation is a competency-based course consisting of elements providing a base for the student in current theory and practice in the evaluation of school curriculum and instruction. Reviews, critiques and application of current thinking and practice in curriculum evaluation are an integral part of the course.

SPECIAL EDUCATION

(Code 70)

Master of Science Degree in Special Education

Purpose: This program is intended to improve the competence of the teacher of exceptional individuals, to develop potential for leadership and to prepare for further graduate study in the field.

Prerequisites: Applicants must hold, or be eligible for, a current Pennsylvania teaching certificate for special education--Level I.

Program Options: Applicants may elect preparation for teaching the mentally retarded, teaching the learning disabled or teaching those with behavior disorders.

Required Courses: Mental Retardation: 70.502, 70.515, 70.525, 70.526, 70.544, 70.554 70.591, 70.599--Master's Research Paper or Departmental Paper (optional)--or 36 semester hour program.

Learning Disabilities: 70.505, 70.532, 70.544 or appropriate reading course, 70.560, 70.590, 70.599--Master's Research Paper or Departmental Paper (optional)--or 36 semester hour program.

Behavioral Disorders: 70.570, 70.571, 70.572, 70.599--Master's Research Paper or Departmental Paper (optional)--or 36 semester hour program.

Master of Science Degree in Special Education With a Specialization in Exceptional Persons

Purpose: This program is designed for the professionals not in education who wish to expand their knowledge and develop new skills for working with the exceptional person.

Prerequisites: Applicants must possess an earned baccalaureate degree from an accredited college or university and must meet all entrance requirements as stated in the current Graduate Bulletin.

Program Options: Applicants will have the opportunity to select courses outside of special education, to acquire additional information and skills in his/her own discipline.

Required Courses: 70.516, 70.565 or 591, five of the following: 70.455, 70.490, 70.501, 70.502, 70.517, 70.526, 70.532, 70.544, 70.552, 70.559, 70.560, 70.562, 70.570, 70.599 Master's Research Paper or Departmental Paper (optional)--or 36 semester hour program.

Master of Science Degree in Special Education With a Specialization in Gifted/Talented Persons

Purpose: This program is designed for individuals who wish to expand their knowledge and develop new skills for working with gifted individuals.

Prerequisites: Applicants must possess an earned baccalaureate degree from an accredited college or university and must meet all entrance requirements as stated in the current Graduate Bulletin.

Program Options: Applicants will have the opportunity to select courses to acquire additional information and skills related to their particular situation.

Required Courses: 60.591 or 70.565, 70.517, 70.518, 62.534, 70.519, 70.552, 70.592, 70.599 Master's research paper or departmental paper (optional) -- or 36 semester hour program.

COURSE DESCRIPTIONS

70.432 LANGUAGE II

3 semester hours

Designed to aid the student in preparing to teach exceptional children basic and refined written language skills. Course content includes methods and materials for teaching penmanship, spelling, syntactical structure and reading.

Prerequisites: 70.101, 70.231 and 62.371 or equivalent.

- 70.450 METHODS FOR ELEMENTARY SPECIAL EDUCATION** **3 semester hours**
 Fundamental principles for, and a variety of teaching techniques applicable to, the range of elementary levels of special education. Organization of programs, curricular approaches and materials for the special education teacher.
Prerequisites: 70.101, 70.200, 70.250 and/or 70.251.
- 70.451 METHODS FOR SECONDARY SPECIAL EDUCATION** **3 semester hours**
 A student-centered workshop approach in analysis of methods, research and philosophies currently in use in the teaching of special education students. Practice in the use of various teaching aids and machines related to student projects in secondary special classes.
- 70.455 LEARNING DISABILITIES** **3 semester hours**
 A study of the characteristics and symptoms of specific learning disorders. Students are introduced to diagnostic and educational procedures used with learning disorders. Emphasis is on perceptual and conceptual factors in the development of language skills.
(For individuals who have not had a previous course in learning disabilities.)
- 70.490 SPECIAL WORKSHOP** **1-6 semester hours**
 Temporary special workshop seminars designed to focus on contemporary trends, topics and problems in the field of special education. Lecturers, resource speakers, team teaching, field experience and practicum, new media and related techniques. Usually are funded projects.
- 70.491 SPECIAL WORKSHOP** **1-6 semester hours**
 (Refer to description of 70.490.)
- 70.492 SPECIAL WORKSHOP** **1-6 semester hours**
 (Refer to description of 70.490.)
- 70.501 ADMINISTRATION AND SUPERVISION OF EDUCATION FOR EXCEPTIONAL INDIVIDUALS** **3 semester hours**
 Application of fundamental principles of school administration and supervision to the areas of exceptionality and to problems unique to each. School law, teacher recruitment, in-service education, organization and integration of special education and ancillary services, evaluation of special provisions and finance as these bear on special education.
- 70.502 MENTAL RETARDATION** **3 semester hours**
 Intensive review of research pertaining to etiology of mental retardation, classification systems and diagnosis. Includes study of brain injury, familial retardation, research on learning characteristics and evaluation of psychological tests. Criteria distinguishing mental retardation from other problems.
- 70.505 SEMINAR IN LEARNING DISABILITIES** **3 semester hours**
 This course is designed to facilitate an in-depth study of the behavioral characteristics and cognitive development of children with specific learning disabilities. It is specifically intended for those graduate students seeking a master's degree with concentrated emphasis in learning disabilities. Enrollment is limited to those who have the necessary prerequisites and with the approval of the instructor.
- 70.515 CURRICULUM AND MATERIALS FOR THE EDUCABLE MENTALLY RETARDED** **3 semester hours**
 Problems-oriented course concerned with principles and procedures of curriculum and materials development and construction. Designed to further develop and/or refine the special education teacher's competence in developing adequate, meaningful curricular experiences for the retarded at various levels.
- 70.516 PSYCHOLOGY OF EXCEPTIONAL INDIVIDUALS** **3 semester hours**
 Symptomatology, personality formation and developmental and therapeutic consideration for the exceptional individual.
- 70.517 EDUCATION OF THE GIFTED INDIVIDUAL** **3 semester hours**
 Principles and practices which are modifying school programs to conserve and develop to the optimum degree the capabilities of the more able individuals. A study is made of teaching techniques and devices used effectively in both the elementary and the secondary school.

- 70.518 IDENTIFICATION AND EVALUATION IN GIFTED/TALENTED EDUCATION** 3 semester hours
 This course is designed to provide information which will assist students to become familiar with physical, mental, emotional and social characteristics of the gifted/talented and to use formal and informal assessment devices and procedures to identify, evaluate and classify the gifted/talented so that appropriate individual educational programs may be provided for them. Ways of developing informal assessments, gathering and storing observational information and classifying gifted/talented students according to individual educational needs will be covered.
- 70.519 CURRICULUM AND PROGRAM DEVELOPMENT IN GIFTED/TALENTED EDUCATION** 3 semester hours
 The purpose of this course is to provide in-service teachers, administrators, interested parents and others with comprehensive theoretical and practical approaches to teaching gifted/talented individuals. The intention is to present a variety of approaches that can be combined or integrated into a unique plan to fit each individual's needs.
- 70.525 CURRICULUM AND MATERIALS FOR LOW FUNCTIONING MENTALLY RETARDED** 3 semester hours
 Designed to give the student intensive study and understanding of the trainable mentally retarded child. Emphasis on curriculum development, methods and materials to be used with the trainable mentally retarded child in school. Research; methods of diagnosis and differentiation; implications for training and psychological planning.
- 70.526 VOCATIONAL WORK STUDY PROGRAM** 3 semester hours
 Investigation and analysis are concerned with manual skills at various developmental levels. Research criteria and information are applied to job performance and adjustment and to the community and to job opportunities. Experience is provided in job analysis for skills involved and in surveying job adjustments of handicapped adults.
- 70.532 COMMUNICATION DISORDERS OF EXCEPTIONAL INDIVIDUALS** 3 semester hours
 Review of research and analysis of language and speech development in relation to intellectual development; cultural background and other influences; criteria and techniques for developing language and speech in the special class; role of speech correctionist and others to teachers.
- 70.544 DIAGNOSTIC AND REMEDIAL TECHNIQUES** 3 semester hours
 Diagnostic and remedial techniques and instruments used with children in special education programs. Critical evaluation of applicability of each to the child in relation to causes and conditions of exceptionality. Development of skills in interpreting and writing case histories and reports, in selection and application of remedial techniques and evaluation of progress.
Prerequisite: A course in tests and measurements or its equivalent.
- 70.552 SPECIAL PROJECT** 3 semester hours
 Designed to further student's own interest and competency in an area of Special Education for the exceptional child. Library research or individual projects involving service to the exceptional person may be agreed upon and conducted under supervision of a staff member.
- 70.554 DISORDERS OF WRITTEN COMMUNICATION** 3 semester hours
 This course is designed for graduate students with at least minimal background in the area of written language, i.e. decoding and encoding processes. Course content includes a review of the development and acquisition of reading, spelling and writing. In-depth study of specific disorders, etiological factors, developmental and remedial techniques and practices will be included. Specific topics for scholarly research papers will be determined according to individual needs, experience and interest. Students will be required to demonstrate proficiency in all aspects of written language.
- 70.559 SEMINAR IN EDUCATION OF EXCEPTIONAL INDIVIDUALS** 3 semester hours
 Research oriented and devoted in its entirety to problems in the education of exceptional individuals. The problems may be theoretical or practical. Consideration is given to those which are of individual interest to the student.
- 70.560 NEUROLOGICALLY IMPAIRED INDIVIDUAL** 3 semester hours
 Terminology necessary to interpret diagnostic reports; classroom techniques for managing brain-injured individuals; preparation to work with individuals with specific learning disabilities which are related to neurological dysfunction and concomitant behavior.

70.562 PROBLEMS OF INDIVIDUALS WITH IMPAIRED MOTOR DEVELOPMENT**3 semester hours**

This course is designed to give the students information and experience with the problem of individuals with educationally relevant motor disabilities. The course covers normal motor development; formal and informal assessment of motor skills and problems; developmental and corrective preschool and elementary school programs; conditions resulting in severe motor disabilities; self-care, academic and psycho-social aspects of physical disability; pre-vocational and vocational adjustment of the physically handicapped; and current issues related to research and litigation.

70.565 READING AND INTERPRETING RESEARCH IN SPECIAL EDUCATION**3 semester hours**

This course is designed to aid the student in reading, understanding and evaluating the results of statistical and behavioral research carried out by others. Areas covered include a working knowledge of basic statistical terms, an introduction to the type of research questions which can be answered by various statistical procedures, a knowledge of the basic steps of hypothesis testing, an analysis and comparison of excellent and poor research designs and the development of an ability to detect misuse of statistics.

70.570 FOUNDATIONS OF BEHAVIOR DISORDERS**3 semester hours**

An information-based course covering the characteristics of children with behavior disorders, approaches to remediation, general principles of classroom management, simulated problem solving, ideal academic models for children with behavior disorders, research findings and sources of information.

70.571 INTERVENTIONS WITH BEHAVIOR DISORDERED INDIVIDUALS**3 semester hours**

A field-based experience where majors meet in class and are given assignments to perform in their classrooms. Observations are made and feedback is provided. Results of interventions are shared in group class sessions and strategies are multiplied for all.

70.572 SEMINAR ON BEHAVIOR DISORDERS**3 semester hours**

A regularly scheduled seminar group composed of those who have completed the first two courses in the Master's Behavior Disorders sequence. The group will deal with reading new research and discussing implications for applications, as well as future directions, moral issues and more advanced systems of management and instruction.

70.590 DIAGNOSTIC AND TEACHING PRACTICUM IN LEARNING DISABILITIES

Opportunity to work in a structured setting on a one-to-one and small group basis. Practicum is the culminating activity wherein the teacher will apply the knowledge previously acquired in academic courses through the interpretation of diagnostic reports, evaluating children's needs, planning and carrying out programs and making recommendations for the child's future educational program.

70.591 PRACTICUM IN TEACHING THE MENTALLY RETARDED PHYSICALLY HANDICAPPED**3 semester hours**

This practicum course is designed to facilitate in-service training for teachers of the mentally retarded and physically handicapped who are currently certified. Students will select an area of primary interest to them; and, under closely supervised conditions (by the instructor), the project will be conducted as part of his/her regular professional assignment. Permission to register for the course must be obtained from the instructor assigned to supervise the practicum.

70.592 INTERVENTION IN GIFTED/TALENTED EDUCATION**3 semester hours**

This course is designed to facilitate practical training of individuals interested in acquiring a gifted/talented master's degree. The student will, under close supervision by a department faculty member, select an area of interest and contract for a project which enables the student to demonstrate a mastery of a set of competencies considered germane to the objectives of this course. Permission for this course must be obtained from the instructor to supervise the practicum.

70.595 INTERNSHIP**3-6 semester hours**

Internship in special education. Supervision to take place in schools or educational situations under supervision of the local supervisor and graduate faculty.

70.599 MASTER'S RESEARCH PAPER**3-6 semester hours**

Opportunity to employ accepted methods of educational research in the solution or intensive study of some problem area of interest or concern. The problem area selected for the research project must be related to the exceptional person.

5.3 COMMUNICATION DISORDERS**(Code 74)**

**Master of Science Degree
in Communication Disorders**

Purposes: The purposes of the graduate program in Communication Disorders are (1)to prepare clinicians in speech and language pathology and audiology for schools, hospitals and clinics and (2)to prepare teachers of the hearing impaired. Students in Speech and Language Pathology and Audiology who wish to meet requirements for the Certificate of Clinical Competence of the American Speech and Hearing Association should refer to the Department's sheet of requirements.

Students in Education of the Hearing Impaired may satisfy the requirements for certification by the Council on Education of the Deaf.

Admission Requirements and Prerequisites: Admission to full-time graduate study is subject to an annual quota, with selection made on the basis of undergraduate Quality Point Average and the following prerequisites for the areas of study: (1)For Speech and Language Pathology Audiology--an undergraduate major in this field or the make-up of deficiencies including clinical training and practicum; (2)For Education of the Hearing Impaired--an undergraduate curriculum which included teacher certification together with courses constituting the equivalent of a minor in communication disorders. Deficiencies must be made up without graduate credit.

Required Courses: Master's Research Paper or department paper; courses and practicum to fulfill requirements for the desired credentials selected subject to the approval of the adviser.

Elective Courses: Elective courses may be chosen with approval of the adviser from categories 70, 74 and 48.

*COURSE DESCRIPTIONS***74.403 INTRODUCTION TO MANUAL COMMUNICATION FOR THE HEARING IMPAIRED****3 semester hours**

Studies the basic sign language vocabulary and fingerspelling techniques used in communicating with hearing impaired individuals. Emphasis is placed on developing proper receptive and expressive skills--required for an effective communication process to occur.

74.452 ANATOMY OF SPEECH AND HEARING MECHANISMS**3 semester hours**

Embryology, anatomy, neurology and physiology of the larynx and ear are studied. The actual processes involved in human speaking and hearing are explored. A cooperative lecture series is developed for the students by the medical staff at Geisinger Medical Center.

Prerequisite: 74.351.

74.460 PSYCHOLINGUISTICS**3 semester hours**

Language as a psychological phenomenon; nature and acquisition of meaning, and the learning of systems; influences of verbal and nonverbal antecedent conditions on both verbal and nonverbal learning. Descriptive models of language mediators in behavior.

Prerequisites: 74.251, 276.

74.467 APPLIED BEHAVIOR ANALYSIS IN SPEECH AND LANGUAGE THERAPY**3 semester hours**

Applications of the psychology of learning to communicative behavior and clinical problems. Current educational and therapeutic trends and practices.

Prerequisite: 74.351.

- 74.471 SEMINAR IN SPEECH PATHOLOGY** 3 semester hours
 This course is designed to survey the most current diagnostic and clinical procedures available in speech-language pathology and to discuss the applicability of the procedures to the clinical populations being serviced by the seminar students.
- 74.472 MEASUREMENT OF HEARING LOSS** 3 semester hours
 The anatomy and physiology of the hearing mechanisms are studied. Etiology of hearing losses, interpretation of audiometric evaluations and available rehabilitative procedures are discussed. Laboratory experience in the administration of clinical audiometric evaluations is provided.
Prerequisites: 74.276, 376.
- 74.490 COUNSELING NEEDS OF COMMUNICATIVELY DISORDERED INDIVIDUALS AND THEIR FAMILIES** 3 semester hours
 This course is designed to help students to identify counseling needs of communicatively disabled individuals and their families and to provide basic, short-term counseling. Students will be introduced to various counseling strategies in individual and group settings as appropriate to schools and speech and hearing clinics.
- 74.501 INTRODUCTION TO MANUAL COMMUNICATION WITH THE DEAF** 3 semester hours
 This course involves a study of basic sign language vocabulary and fingerspelling techniques used in communication with hearing impaired individuals. Emphasis is placed on developing proper expressive and receptive skills.
- 74.502 COMMUNICATION II** 3 semester hours
 This course involves a study of intermediate/advanced sign language, vocabulary and fingerspelling techniques used in communication with hearing impaired individuals. Emphasis is placed on developing and improving proper expressive skills. Topics covered include: Signed English, American Sign Language and sign language systems.
Prerequisite: 74.501 or equivalent skills.
- 74.503 AMERICAN SIGN LANGUAGE I** 3 semester hours
 This course involves a study of American Sign Language (ASL) including the history of ASL and its recognition as a language. The major thrust and focus of this course will be basically grammatical.
Prerequisite: 74.502 or equivalent skills.
- 74.504 INTERNSHIP IN SUPERVISION OF SPEECH AND HEARING PROGRAMS** 3-6 semester hours
 Present practices and philosophies in public school are examined. Merits of existing programs are considered. Educational structures and national, state and local requirements are reviewed. Research trends and advanced practices in the field are considered. Includes analyses of equipment materials, record-keeping procedures and related materials.
- 74.505 SUPERVISION AND ADMINISTRATION OF SPEECH AND HEARING SERVICES** 3 semester hours
 General principles of supervision are examined and professional personnel practices are explored.
- 74.510 OROFACIAL AND SPEECH DISORDERS** 3 semester hours
 The course will concentrate on orofacial structured deficits and their effect on speech. Specific attention will be given to clefts of the prepalate and palate and their sequelae on speech.
- 74.511 NEUROMUSCULAR SPEECH DISORDERS** 3 semester hours
 Etiology, diagnosis and treatment of organic factors are subjects of intensive study. Emphasis is focused on articulatory abnormalities of speech processes caused by cerebral palsy and other neurological impairments. Implications of disorders for developmental age levels are considered.
- 74.512 ADULT APHASIA** 3 semester hours
 The study of language disorders in brain injured adults. Among the areas of concentration are: the history of aphasia, the neurological basis for aphasia, symptomatology of aphasia, associated problems, intelligence and aphasia, the evaluation of language and non-language functions and current rehabilitative procedures.

- 74.518 CHILD LANGUAGE DISABILITIES** 3 semester hours
A review of normal language acquisition with primary emphasis on the application of developmental information to the diagnosis and habilitation of language disorders in children.
- 74.532 HEARING AIDS AND AUDITORY TRAINING** 3 semester hours
Theoretical and clinical analyses of literature are evaluated in relation to educational and other rehabilitative measures available to individuals with serious organic and non-organic hearing problems. Study, interpretation and evaluation of modern instruments and tests are included.
- 74.540 SEMINAR IN CURRENT CLINICAL PROCEDURES** 3 semester hours
This course reviews contemporary diagnostic and therapeutic procedures. The class participates in selecting the specific instruments for review and study.
- 74.541 STUTTERING** 3 semester hours
The development, diagnosis and treatment of stuttering disorders with equal emphasis being placed upon academic understanding and clinical management.
- 74.553 SPEECH PATHOLOGY PRACTICUM** 6 semester hours
Special clinical problems of clients are considered through advanced study and experience. Externships may be arranged in approved institutions or schools. Problem areas and student practicums must be approved by graduate adviser.
- 74.554 CLINICAL PRACTICUM IN AUDIOLOGY** 3 semester hours
Hearing losses and deafness affecting the personal and socio-economic adjustment of individuals are evaluated and treated through supervised study and experience. Externships may be arranged in approved private and public institutions.
- 74.555 CLINICAL PRACTICUM IN AUDIOLOGY** 3 semester hours
(See course description of 74.554.)
- 74.560 INTERMEDIATE SPEECH AND LANGUAGE PRACTICUM IN EDUCATION OF THE HEARING IMPAIRED** 3 semester hours
This course provides an opportunity to work with hearing impaired children. The emphasis is speech and language remediation of hearing impaired individuals.
- 74.561 VOICE DISORDERS** 3 semester hours
The diagnosis and clinical management of functional and organic voice disorders.
- 74.562 RESEARCH IN SPEECH AND LANGUAGE PATHOLOGY** 3 semester hours
The application of clinical and non-clinical research literature to the solution of treatment problems encountered in speech and language pathology.
- 74.563 RESEARCH IN AUDIOLOGY** 3 semester hours
The application of clinical and non-clinical research literature to the solution of diagnostic and treatment problems encountered in the general practice of audiology.
- 74.564 SPEECH FOR THE HEARING IMPAIRED** 3 semester hours
Study of the principles and techniques used in development and formation of the English speech sounds by the synthetic and analytic methods with special consideration given the production, classification and transmission of speech sounds by these methods. Supervised demonstrations and practicums are an integral part of the course.
- 74.565 PROBLEMS AND TRENDS IN TEACHING THE HEARING IMPAIRED** 3 semester hours
Current practices and trends in education and welfare of the hearing impaired. Concerned with psychology, social adjustment, educational achievement, political and social viewpoints, learning problems and vocational competence of hearing impaired. New techniques and methodologies.
- 74.566 LANGUAGE FOR THE HEARING IMPAIRED** 3 semester hours
Study of the principles and techniques used in the development and correction of language for the hearing impaired. The student is made familiar with leading systems of language designed for the hearing impaired and proficient in the step-by-step development of at least one language system. Supervised demonstrations and practicums are an integral part of the course.

- 74.568 COMMUNICATION FOR THE HEARING IMPAIRED** 3 semester hours
Study of the expressive and receptive methods of communication used by the hearing impaired with emphasis on new techniques and methodologies.
- 74.569 CURRICULAR SUBJECTS FOR THE HEARING IMPAIRED** 3 semester hours
Practices, content and methods of teaching school subjects to the hearing impaired are examined with emphasis on content and methods rather than theory.
- 74.570 PRACTICUM WITH THE HEARING IMPAIRED** 6 semester hours
Hearing losses affecting the communicational, educational and vocational adjustment of individuals are evaluated through supervised observation, clinical practice and practicum experience. Students are assigned to approved private and public programs for the hearing impaired where they work with selected professionals in communication disorders, following the same schedules and assuming responsibilities similar to those of professionals. Arrangements relating to student interest must be approved by program adviser.
- 74.571 SEMINAR IN COMMUNICATION DISORDERS** 3 semester hours
Selected theoretical and clinical areas of communication disorders and related disciplines. Selected areas may include clinical and research topics pertaining to student needs.
- 74.572 SEMINAR IN AUDIOLOGY: SPECIAL PROBLEMS** 3 semester hours
Analysis, interpretation and study are made of selected problems in audiology and related disciplines that may include education, psychology, otology, rehabilitation and other fields.
- 74.573 SEMINAR IN AUDIOLOGY: INDUSTRIAL AND PUBLIC HEALTH AUDIOLOGY** 3 semester hours
Problems and programs of hearing conservation in public institutions and industries are examined with special emphasis on legislation and medico-legal questions. The role and function of the public health and industrial audiologist is examined.
- 74.574 SEMINAR IN AUDIOLOGY: AUDITORY PROBLEMS IN CHILDREN** 3 semester hours
Congenital and acquired hearing impairment in children is examined with special emphasis on problems of differential diagnosis. Educational and social implication of hearing impairment in children is discussed in conjunction with appropriate rehabilitative procedures.
- 74.576 SEMINAR IN AUDIOLOGY: THEORETICAL AND CLINICAL MASKING** 3 semester hours
The neurophysiological and acoustic basis of problems of masking in auditory measurement are explored and training is offered in clinical masking procedures.
- 74.580 INDEPENDENT STUDY AND RESEARCH** 3 semester hours
This course permits students to work, under close faculty guidance, on library study of specified areas or on individual research projects when particular needs cannot be met by registration in regularly scheduled courses.
- 74.581 INDEPENDENT STUDY AND RESEARCH** 3 semester hours
(Refer to description for 74.580).
- 74.582 INDEPENDENT STUDY AND RESEARCH** 3 semester hours
(Refer to description for 74.580).
- 74.584 RESEARCH IN HEARING IMPAIRMENT** 3 semester hours
- 74.590 PROBLEMS AND SPECIAL TOPICS IN EDUCATION AND HABILITATION OF THE HEARING IMPAIRED** 1-6 semester hours
- 74.599 MASTER'S THESIS** 3-6 semester hours

5.2 SCHOOL OF HEALTH SCIENCES

NURSING

Master of Science Degree in Nursing

Programs of Study: The Bloomsburg University Department of Nursing offers a Master of Science in Nursing in Psychiatric/Community Mental Health and Community Health. The programs of study prepare graduates as clinical specialists in the advanced practice of professional nursing. A minimum of 36 credits is required for graduation.

Admission Requirements: In addition to meeting the admission requirements of Bloomsburg University, the student must have: (1) A bachelor's degree with a nursing major from an NLN accredited program; (2) a license to practice nursing in the United States; (3) at least one year of clinical practice, post baccalaureate degree; (4) graduate record examination (verbal, quantitative, analytical): composite score-1,200 minimum; undergraduate course in: statistics, research and health undergraduate course in: a. statistics; b. research; c. health assessment (as separate course or integrated content); (7) three letters of professional recommendation submitted, (8) a narrative submitted about personal and professional goals for graduate education. Following a preliminary review of admission materials, qualified students are given a personal interview with faculty members. Note: Applicants who do not meet the identified requirements for admission will be considered on an individual basis. These applicants may be admitted on a provisional basis until such time as: (1) identified prerequisites are completed; or (2) potential abilities for graduate education are demonstrated.

Required Courses: I. Core courses: 82.501, 82.502, 82.503, 82.590 (12 semester hours); II. Advanced Cognates* (3-6 semester hours); III. Clinical Specialization (12-18 semester hours); and IV. Education/Administration Cognates* (6 semester hours).

Electives: A graduate course* (3 semester hours) may be selected with the approval of the adviser.

*Courses will be chosen by the student and adviser based on career needs. The education cognates can be selected from education courses offered in the College of Professional Studies; the advanced cognates and electives may be selected from courses in psychology, sociology, political science, communication disorders and speech communication.

NURSING

(Code 82)

Course Descriptions

82.501 RESEARCH **3 semester hours**

A course designed to prepare students to initiate, conduct and utilize research in improving the quality of health care for clients. The course focuses on the consideration of nursing theories for theoretical frameworks, the use of appropriate research process and methodology and the planning and development of a research proposal.

82.502 CONCEPTUAL MODELS IN NURSING **3 semester hours**

A course designed to explore theory building and levels of theory, the relationship of models to theories, the elements of a model and major conceptual models in nursing practice. Students will do an indepth analysis of one specific conceptual model in nursing.

82.503 ROLE THEORY AND DEVELOPMENT IN NURSING PRACTICE **3 semester hours**

Examines the components of role theory and their applicability to the students in advanced clinical practice in nursing. Students apply principles and strategies inherent in the theory to problems, issues and concerns in functional role development of the clinical nurse specialist.

82.510 PSYCHIATRIC/MENTAL HEALTH NURSING I **6 semester hours**

This course presents theory concurrent with advanced clinical practice in psychiatric/mental health nursing. Student examines theoretical formulations in nursing and related disciplines and select a conceptual framework as a model for clinical practice. The students employ the nursing process with increased expertise and accountability as they work individually and collectively with individuals, families and the interdisciplinary health team in the promotion of mental health and the treatment of mental illness. Research is utilized and initiated as a means of improving the quality of mental health care. Clinical practicum is provided in a variety of hospital and community settings in which students may implement the roles of clinician, administrator, educator, consultant and researcher.

82.511 COMMUNITY HEALTH NURSING I **6 semester hours**

This course focuses on advanced professional practice in the multifaceted roles of the community health clinical specialist. Students employ advanced knowledge and skills derived from an analysis of nursing theories, models and community health nursing practice in implementing health promotion, maintenance and restoration strategies with high-risk individuals, families and community aggregates in a variety of health care settings. Students assume leadership roles in working independently and interdependently with clients and health professionals to improve the quality of health care delivery. A weekly seminar session provides opportunities for students to analyze the impact of current trends and issues on contemporary practice and to formulate strategies to effect positive change.

82.513 MANAGEMENT AND ORGANIZATIONAL BEHAVIOR I **3 semester hours**

A course designed to explore the concepts of organizational styles and the theories of management behavior related to the role of the clinical specialist in advanced nursing practice. The course focuses on leadership theories, strategies for motivation and change, the concepts of power and influence and organizational decision-making.

82.514 INDEPENDENT STUDY **3 semester hours**

The student works with a faculty preceptor in conducting an individualized study related to a particular area of clinical interest.

82.530 PSYCHIATRIC/MENTAL HEALTH NURSING II **3 semester hours**

Advanced professional practice in the multifaceted roles of the clinical nurse specialist in Psychiatric/Mental Health Care. Students apply advanced knowledge of theories and skills in the provision of mental health care to clients in a variety of settings and collaboratively with clients and other health professionals in improving the quality of mental health care delivery. Weekly seminar sessions provide opportunities to apply theory to practice as students analyze problems, issues and concerns in professional practice as a psychiatric/mental health clinical nurse specialist.

82.533 MANAGEMENT AND ORGANIZATIONAL BEHAVIOR II **3 semester hours**

Seminar format that explores model building and the future direction of organizational structure for advanced nursing practice. Focus will be on organizational environments and planned change in the health care delivery system.

82.590 THESIS **3 semester hours**

The development and presentation of a formal thesis in the student's area of clinical specialization.

6. COLLEGE OF BUSINESS

6.1 BUSINESS EDUCATION

Master of Education Degree in Business Education

Purpose: This specialization is intended to contribute to the professional maturation of the teacher of business subjects in secondary schools.

Prerequisite: Level I certification to teach business subjects.

Required: Educational Studies 60.501, 60.591; Master's Research Paper (90.599) or Business Seminar (90.581); Business 90.561; and additional courses from the Specialized Subject Matter and specialized professional education areas.

Electives: Graduate courses from categories 90-97 should be elected with approval of the adviser. Courses should be chosen that will extend and reinforce the student's knowledge, techniques and skills and provide critical understanding of current research in business education. The amount of elective credit may be determined from the comprehensive plan for the degree. (Section 2.23).

COURSE DESCRIPTIONS

BUSINESS EDUCATION

(Code 90)

- 90.460 BUSINESS AND EDUCATION WORKSHOP** **1-3 semester hours**
Addresses those educational ideas and experiences that encourages, support and guide participants to acquire an increased understanding of the accumulated knowledge pertaining to the development of business skills, the enhancement of business education as a profession and the determination of the business and office personnel's responsibility and role in the business world.
- 90.533 BUSINESS STATISTICS** **3 semester hours**
Principles applicable to, and procedures used in, collecting, tabulating, analyzing, presenting, and interpreting business and economic data. Measures of central tendency, sampling, time series, correlation and index numbers.
- 90.534 PRINCIPLES OF INSURANCE** **3 semester hours**
Principles applicable to and uses of life, marine, casualty and fire insurance contracts; basic legal concepts pertaining to insurance contracts and the responsibility of underwriters.
- 90.551 IMPROVEMENT OF INSTRUCTION IN BUSINESS SKILL SUBJECTS** **3 semester hours**
Current practices in the teaching of perceptual motor skill subjects are studied, with particular emphasis on the psychology of perceptual motor learning. Attention is given to development of research-based teaching strategies and instructional materials, evaluative techniques, development of standards, selection of equipment and planning courses of study.
- 90.55 IMPROVEMENT OF INSTRUCTION IN BASIC BUSINESS SUBJECTS** **3 semester hours**
The contribution which basic business subjects can make to the educational program of the secondary school. Currently accepted methods and techniques of teaching such basic business subjects as general business, business law and elementary economics; teaching aids to effective instruction.
- 90.553 IMPROVEMENT OF INSTRUCTION IN ACCOUNTING AND BUSINESS MATHEMATICS** **3 semester hours**
Recent developments in methods of teaching Bookkeeping and business arithmetic and a critical analysis of objectives serve as a basis for increasing the competence of the teacher of these subjects. Consideration is given to teaching aids to improve the effectiveness of the classroom instructor.

90.561 FOUNDATIONS OF BUSINESS EDUCATION 3 semester hours

A study of the historical beginnings and present status of business education. The course serves as a basis for developing and understanding of the objectives and the philosophies underlying present-day vocational programs in the public school. Students are afforded the opportunity to become more deeply acquainted with current research in business education and up-to-date contribution of professional organizations.

90.562 CURRENT PROBLEMS IN BUSINESS EDUCATION 3 semester hours

The major problem areas in business education as revealed by the experience of students are studied with a view toward improving the competence of classroom teachers in coping with their responsibilities in the schools. The course is designed to foster a research attitude toward teaching problems. Teaching experience is strongly recommended as a prerequisite.

90.563 EVALUATION IN BUSINESS EDUCATION 3 semester hours

Objectives of measurement in business education; evaluative devices and their effective use.

90.564 ADMINISTRATION AND SUPERVISION OF BUSINESS EDUCATION 3 semester hours

A study of principles and techniques associated with educational administration serve as the basis for a consideration of administrative and supervisory classroom planning, budgeting, maintenance of records, selection and purchase of equipment and supplies, federal and state funding and current trends.

90.581 SEMINAR IN BUSINESS EDUCATION 3 semester hours

An investigation and evaluation of completed research in business education. The student submits written reports which are used as the basis for class discussions

ACCOUNTING

(Code 91)

91.521 ADVANCED COST ACCOUNTING 3 semester hours

Advanced Cost Accounting provides a thorough understanding of the basic concepts and practical procedures of reporting cost information to business management. Special emphasis is placed upon the use of budgetary control and budget analysis; the use of standard costs; the relevance of management's costs and profit responsibility reports; and the importance of capital expenditure planning and control.

Prerequisite: 91.421.

91.522 ADVANCED AUDITING THEORY 3 semester hours

A review and analysis of the complex ethical concepts of the accounting profession and their historical development. A survey of both old and new areas in the field of auditing, stressing the use of auditing data for managerial and other purposes. Careful analysis of the logical development of auditing principles and concepts.

Prerequisite: 91.422.

91.523 ADVANCED TAX ACCOUNTING 3 semester hours

Interpretation of federal and state partnership and corporate income tax laws. Case studies are employed to illustrate the proper preparation of returns, tax planning and research techniques. Social security taxes, gift taxes and estate taxes.

Prerequisite: 91.423.

INFORMATION PROCESSING

(Code 92)

92.550 INFORMATION PROCESSING 3 semester hours

A comprehensive introduction and basic orientation to the use of information processing in the educational environment. The student will be required to investigate the impact of the computer and associated peripheral devices on the classroom. Effective use of available computer resources will be emphasized.

92.552 PROGRAMMING LANGUAGES**3 semester hours**

Designed to familiarize educational personnel with the various programming languages available for educational training and administration. The student will be required to interface directly with a computer through terminals, explore language manuals and technical literature and to define, write, test and debug a program using several programming languages.

Prerequisite: 92.550 or consent of instructor.

92.554 MANAGEMENT INFORMATION SYSTEMS**3 semester hours**

A study of information analysis and systems design from the user's point of view. The student will identify the basic concepts of the following: the systems point of view, the organization as a system, information flows and the nature of management information systems. Data bases and data base management systems will be investigated from the manager's perspective.

Prerequisite: Graduate standing.

92.556 SYSTEMS DESIGN AND APPLICATION**3 semester hours**

Assisting educational personnel to utilize the full capabilities of the computer in his/her own classroom constitutes the major objective of this course. Using the computer as a tool of research and calculation, simulation games, computer-assisted testing, computer-managed instruction and computer-assisted instruction are explored through readings, discussions, demonstrations and guest lecturers. This course also includes the basic concepts of systems analysis, feasibility, design and implementation.

Prerequisite: 92.552 or consent of instructor.

SECRETARIAL**(Code 94)****94.412 ADVANCED SHORTHAND WORKSHOP****3 semester hours**

An introduction to different shorthand systems--machine, symbol and non-symbol. Development of a degree of proficiency in the use of a different shorthand system through dictation and transcription. A review of the techniques and methods of teaching shorthand. Students are required to research the implementation of shorthand systems. This course is not applicable toward shorthand certification. *(Undergraduate or Graduate credit)

Prerequisites: 94.301 or 94.302.

FINANCE**(Code 96)****96.531 PROBLEMS IN CORPORATION FINANCE****3 semester hours**

Problems in organizing and financing operations of industrial corporations, public utilities and railroads. Special attention is given to the kinds of corporate securities used to secure both short-term and long-term capital.

96.532 PROBLEMS IN PUBLIC FINANCE**3 semester hours**

Principles governing the budgeting and financing of federal, state and local government operations; analysis of the effects of public expenditures, taxation and debt management on the economy of the United States.

MARKETING**(Code 97)****97.541 RESEARCH IN MARKETING****3 semester hours**

An introduction to marketing research.

Prerequisite: 97.310 or consent of the instructor.

6.2 THE MASTER OF BUSINESS**Master of Business Administration Degree**

Philosophy and Objectives: The program for the degree, Master of Business Administration (MBA), is planned to reflect the curriculum standards of the American Assembly of Collegiate Schools of Business. It is oriented toward the decision-making responsibilities of management; consequently, it is broad-based and aims to develop perspective. It also provides a limited opportunity to elect courses in an area of specialization.

Admission to the Courses of the Program: Enrollment in the program is limited; therefore, admission to the courses is selective. The applicant must hold a baccalaureate degree from an accredited college or university. While no undergraduate major is prescribed, a minimum body of 30 credits in background courses in basic business subjects is required as outlined herein. The overall quality point average must have been 2.50 or higher; or if based on only the last two years of undergraduate work, must have been a 2.75 or higher. Requirements for admission to the Master of Business Administration program are based on a combination of undergraduate grade point average and score on the Graduate Management Admissions Test (GMAT). A score of 950 or more points must be achieved based on the formula: 200 times the overall undergraduate grade point average plus the GMAT score; or at least 1,000 points based on the formula; 200 times the last two years of undergraduate grade point average plus the GMAT score.

Admissions criteria include the GMAT score, the undergraduate record, statements by two references and job experience.

Admission to Candidacy for MBA Degree: Admission to the courses of the program does not imply admission to candidacy for the degree. The procedure for admission to candidacy is described in Section 2.22.

Program of Study: The total program for the MBA degree comprises two levels of courses. Level I consists of background courses or experiences that are prerequisite to Level II. Students whose undergraduate major was in Business Administration are likely to have had most, or perhaps all, of the courses of Level I; they may be exempted from courses which duplicate their undergraduate work. Level I must be completed before entering the Level II program.

The courses of Level I are Financial Accounting or Principles of Accounting II, Principles of Management, Principles of Marketing, Statistics, Business Law, Business Finance, Principles of Economics (two semesters) and two semesters of Mathematics, including one semester of calculus. In the undergraduate catalog of Bloomsburg University, these are numbered respectively: 91.220 or 222; 93.344; 97.310; 40.346; 98.331; 96.313; 40.211 and 212; and 53.123 plus one additional advanced mathematics course.

Level II consists of 36 semester hours of graduate credit, of which 30 are prescribed and six are elected.

The prescribed courses are:

| | | |
|--------|--------------------------------|------------------|
| 93.457 | BUSINESS AND SOCIETY | 3 semester hours |
| 93.511 | STATISTICAL ANALYSIS OR DESIGN | 3 semester hours |
| 93.512 | MANAGERIAL ECONOMICS | 3 semester hours |
| 93.560 | OPERATIONS MANAGEMENT | 3 semester hours |
| 93.562 | ORGANIZATION THEORY | 3 semester hours |
| 93.563 | OPERATIONS RESEARCH | 3 semester hours |
| 93.566 | ORGANIZATIONAL BEHAVIOR | 3 semester hours |
| 93.581 | POLICIES | 3 semester hours |
| 96.535 | FINANCIAL MANAGEMENT | 3 semester hours |
| 97.551 | MARKETING MANAGEMENT | 3 semester hours |

Two courses must be elected in accounting, marketing, finance or management. Elective courses may be chosen from:

| | | |
|--------|--|------------------|
| 91.501 | FINANCIAL ACCOUNTING | 3 semester hours |
| 91.502 | ADVANCED FINANCIAL ACCOUNTING | 3 semester hours |
| 91.503 | GOVERNMENTAL FUND ACCOUNTING | 3 semester hours |
| 92.554 | MANAGEMENT INFORMATION SYSTEMS | 3 semester hours |
| 93.561 | OPERATIONS PLANNING AND CONTROL | 3 semester hours |
| 96.550 | SECURITY ANALYSIS & PORTFOLIO MANAGEMENT | 3 semester hours |

- 96.565 SEMINAR IN FINANCE** 3 semester hours
- 93.583 HUMAN RESOURCES DEVELOPMENT** 3 semester hours

or, with permission of the dean, from the following senior level undergraduate courses (for course descriptions, see undergraduate catalog):

- 90.431 INDEPENDENT STUDY--SBA INSTITUTE**
- 42.472 HISTORY OF LABOR IN THE UNITED STATES** 3 semester hours
- 96.454 ADVANCED FINANCIAL MANAGEMENT** 3 semester hours

**ACCOUNTING
(Code 91)**

- 90.431 INDEPENDENT STUDY--SBA Institute**
Teams of students will work with local businesses in a consultancy capacity to aid in the resolution of actual business problems. Work will include analysis of the problem, determination of alternative solutions, recommendation of the optimum course of action by means of an oral presentation to the business owners and a written report to the Small Business Administration's regional office.

- 91.501 FINANCIAL ACCOUNTING** 3 semester hours
Emphasis on asset valuation, income determination and financial accounting principles, with selected topics from the funds statement and analysis and interpretation of financial statements.
Prerequisite: 91.524.

- 91.502 ADVANCED FINANCIAL ACCOUNTING** 3 semester hours
Advanced problems in consolidated statements, stockholder's equity partnership, fiduciary accounting and selected topics dealing with government units and nonprofit service organizations. Selected reference to professional literature and uniform C.P.A. examination problems.
Prerequisite: 91.501.

- 91.503 GOVERNMENTAL FUND ACCOUNTING** 3 semester hours
Accounting principles and practices of governments and nonprofit institutions. Comparisons between accounting principles and practices which apply to governments and nonprofit institutions and those which are generally accepted in business.
Prerequisite: 91.502.

- 91.524 MANAGERIAL ACCOUNTING** 3 semester hours
The major objective of this course is to show how accounting data can be used to help solve the problems of business management. Attention will also be given to the use of accounting data by investors and potential investors whenever possible.

**MANAGEMENT
(Code 93)**

- 93.511 STATISTICAL ANALYSIS** 3 semester hours
Statistical principles and procedures basic to research in business and interpretation of data.

- 93.512 MANAGERIAL ECONOMICS** 3 semester hours
Economic analysis of the firm and its environment. Determination of prices, output and employment.

- 93.560 OPERATIONS MANAGEMENT** 3 semester hours
Analysis of manufacturing and service systems, and application of decision-making to operational and policy problems.

- 93.561 OPERATIONS PLANNING AND CONTROL** 3 semester hours
Examination of research findings in operations management, with focus on the operation and control of the system.
Prerequisite: 93.560.

93.562 ORGANIZATION THEORY **3 semester hours**

Comparative examination of major approaches to the study of organizations. Theories and research findings applied to practical situations. Topics include: organization structure, systems of power and influence, organizational conflict and cooperation, individual motivation, group process, behavioral science research and its implications for management.

93.563 OPERATIONS RESEARCH IN BUSINESS **3 semester hours**

Construction and use of quantitative models in business decision-making.

93.566 ORGANIZATIONAL BEHAVIOR **3 semester hours**

This course focuses primarily on internal organizational issues with appropriate recognition given to personal and external organizational background factors. More specifically, this course deals with the human aspects of organization, spotlighting the group and individual. Included are not only the findings and conceptual models of those who have conducted empirical behavior research and struggled to make sense of what has been observed -- but also the behaviors of class members.

Among specific concepts to be included are roles, norms, cohesive and divisive processes, social and status aspects are explored, including self-concept, personal perception, goals, feelings, ego, responsibility, decisions, conditioning and personal functioning.

Prerequisite: 93.560.

93.581 POLICIES **3 semester hours**

Complex industrial situations are examined for the purpose of determining the strategy to insure long-run survival and growth in competitive markets. Emphasis is on problem-solving skills, implementation of optimal decisions, nature of strategic analysis including selected cases involving production, pricing, capital investments and their interaction with other factors.

Prerequisite: Must be taken in the last semester of the student's program.

FINANCE
(Code 96)

93.583 HUMAN RESOURCES DEVELOPMENT

The course focuses on the current research and theory related to the management and development of human resources in organizational settings. Specific emphasis is placed on basic principles of behavior, motivation, training and development, leadership and performance in organizations.

96.454 ADVANCED FINANCIAL MANAGEMENT **3 semester hours**

The study of business financial problems and the development of advanced financial management practices as used in the decision-making role of the financial manager.

96.535 FINANCIAL MANAGEMENT **3 semester hours**

Extensive and in-depth study of management activities involved in the financial aspects of the business enterprise. Theoretical knowledge gained through exposure to financial management literature is applied to problem situations through the use of case studies and simulation techniques. Emphasis is placed on the development of perspective in the decision-making process, with the acquisition of tools to facilitate effective decision-making.

96.550 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT **3 semester hours**

An advanced treatment of aspects involved in developing a logical and systematic approach to analyzing and evaluating types of securities. Investment strategy and management of an investment portfolio. Theoretical aspects of security analysis and problems involved in analyzing and evaluating securities within the context of the type of industry issuing them.

96.565 SEMINAR IN FINANCE **3 semester hours**

Seminar on unresolved problems in the field of finance, with investigations to include such areas as models for financial decision-making, money and capital markets and simulation problems.

MARKETING
(Code 97)

97.551 MARKETING MANAGEMENT **3 semester hours**

Application of the managerial processes of analysis, organization, planning and control of marketing activities: Marketing concepts, analysis of marketing opportunities, growth and competitive strategy, marketing information system, buyer behavior and product development.

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