



IV College of Arts and Sciences

The objectives of graduate work in the Arts and Sciences coincide with the general aims and philosophy of education that characterize the University of Dayton. Specific objectives and requirements of the several departments are presented in the following programs:

GRADUATE PROGRAMS IN BIOLOGY

Statement of Purpose:

The general objective of graduate work in the Department of Biology is to give the student a basis for a thorough understanding and appreciation of his chosen discipline. Specifically, the graduate program is intended:

- a. To prepare professional biologists.
- b. To qualify the student for academic, industrial and governmental careers in biology.
- c. To equip teachers for scholarly competence in biology.

Specific Requirements of the Department:

1. Individuals possessing a Bachelor's or Master's degree from an accredited school may be admitted if the Admissions Committee of the Department is satisfied that the applicant is fully qualified to undertake the degree program.
2. All students accepted are considered pre-doctoral students. However, either the student or the Department may terminate the student's program with the completion of the requirements for the M.S. degree.
3. The following undergraduate courses are considered prerequisite:
 - a. Twenty-four to thirty credit hours in the field of Biology, of which eighteen to twenty-four credit hours must correspond to the Department's 300-400 course designation.
 - b. Two semesters each of General Chemistry and Organic Chemistry and one semester of Physical Chemistry or Quantitative Analysis.
 - c. Two semesters of Physics.
 - d. Two semesters of Mathematics including Calculus.

The graduate student may be required to fulfill undergraduate prerequisites before

being admitted to graduate courses for which, in the judgment of the Departmental Committee, he is not qualified.

Requirements for Graduate Degrees in Biology:

1. **Residence.** A student must attend the University as a full-time student for at least one full year in the Master's program, at least two full years in the Doctorate program.
2. **Credit Hours.** The Master's degree requires twenty-four semester hours of courses plus three to six thesis hours. There is no set credit hour total for the Ph.D. degree; each student follows the program outlined for him by his committee. At the discretion of the Chairman, credit hours may include graduate and/or undergraduate courses in biology and related areas. If desirable, the student will be encouraged to take some work at neighboring institutions or summer laboratories.
3. **Specialization Area.** While the degree is in biology, some amount of specialization is expected. This is determined by the interests of the student and accomplished by the selection of courses and a thesis topic after conferring with the advisory committee. Course choices may be made in any of the following areas of specialization.

MICROBIOLOGY

Bacteriology	Pathogenic Bacteriology
Biochemistry	Parasitology
Bacterial Physiology	Bioinstrumentation
Immunology and Serology	Cytology
Virology	Non-vascular Plants

BIOFUNCTION

Bioinstrumentation	Biochemical Genetics
Radiation Biology	Biochemistry
Plant Physiology	Embryology
Endocrinology	Physiology
Immunology	Comparative Animal Physiology
Genetics	

BIOECOLOGY

Ecology	Invertebrate Zoology
Population Ecology	Biometrics
Vertebrate Morphology	Vertebrate Paleontology
Lower Plants	Evolutionary Biology
Higher Plants	

Since advanced undergraduate courses may be taken for graduate credit, the student is advised to consult course listings in the Undergraduate Catalog. Normally, only two such courses may be counted toward the graduate requirements.

4. Required Courses. A number of courses are common to all programs. These courses, required of all students, are:

Bio 501 Seminar

Bio 552-553 Biological Instrumentation

Bio 599 M.S. Thesis and/or

Bio 699 Ph.D. Dissertation

5. Degree Examinations. A Preliminary Evaluation will be made to assess the student's background knowledge of biology. As a result of this evaluation specific background courses may be recommended by the student's advisor. In the third semester as a full-time graduate student, a Qualifying Examination (written and oral) will be administered. Depending upon the outcome of this examination and his overall first year performance, the student may be directed to:

- a. Work directly for a doctorate, if he so chooses.
- b. Withdraw from the program.
- c. Complete the requirements for a Master's degree (i.e., course work and thesis). If successful the student may continue studies towards the doctorate with the approval of his advisory committee.

A Candidacy Examination (oral) for the doctorate is given by the student's advisory committee. This examination will be taken no later than the student's sixth semester of full graduate standing (fourth semester for those who enroll with a Master's degree). Successful completion of this examination entitles the student to become a candidate for the Ph.D. degree.

6. Thesis Defense. The thesis defense (M.S. and Ph.D.) constitutes an oral examination on the matter of the thesis. A student must present his dissertation for defense within five years after admission to Ph.D. candidacy, or, for the M.S., five years after admission to full graduate standing.

THE MASTER'S PROGRAM IN CHEMISTRY

Statement of Purpose:

The purpose of the Master's program in Chemistry is to present to the student a rigorous approach to modern theories in Chemistry, and to increase his desire and potential toward fundamental research through a program of literature search and laboratory experimentation.

Specific Requirements of the Department:

a. Undergraduate prerequisites: The undergraduate prerequisites shall be the minimum requirements specified by the American Chemical Society. Those students who have graduated from A.C.S. approved schools will have fulfilled these requirements. Others may have to take certain courses concurrently from the undergraduate program to meet A.C.S. requirements.

b. Undergraduate courses open to graduate students: Credit for certain undergraduate non-Chemistry electives may be allowed at the discretion of the Chairman of the Department.

c. Twenty-four credit hours of course work and six hours of research are normally required for the Master's degree in Chemistry. The twenty-four course credits must include three credits in each of the major fields of organic, physical and inorganic chemistry.

d. Electives in other departments may be chosen with the approval of the Chairman of the Department of Chemistry.

THE MASTER'S PROGRAM IN CLINICAL CHEMISTRY

Statement of Purpose:

The purpose of the Master's program in Clinical Chemistry is to provide to the student, advanced training in basic chemistry, in analytical procedures, in modern biochemistry and clinical chemical research. It will also prepare the student for an advanced degree (Ph.D.) program in Clinical Chemistry.

Specific Requirements of the Department:

a. Undergraduate prerequisites: Candidates for the degree should have as a minimum the B.S. degree in Medical Technology or its equivalent; a minimum of 20 hrs. of chemistry (Freshman, Quantitative and Organic Chemistry) will be required. Biology majors, pre-meds and pre-dents who have completed the Bachelor's Degree and have completed at least 20 hrs. of chemistry will also be accepted in the program. Chemistry majors with the B.A. or B.S. degree will have had more than the minimum requirements in Chemistry.

b. Undergraduate courses open to graduate students: Credit for certain under-

graduate non-Chemistry electives may be allowed at the discretion of the Chairman of the Department.

c. The normal requirements for the Master's degree are 24 credits of course work and 6 credits of thesis. A thesis in clinical chemical research will normally be required. However, this requirement may be waived, at the discretion of the chairman of the Department of Chemistry. Six hours of advanced course work must be substituted in its place. The thesis will be waived in those instances where the candidate can show previous experience in Clinical Chemistry Research and whenever this exception will not be a prejudice to his program. A suggested outline of the program is as follows:

<i>Chem.</i>		<i>Credits</i>
Chm 412	Intermediate Organic Chemistry	3
Chm 530	Physical Chemistry	3
Chm 415	Analytical Chemistry	3
Chm 531 & 531L	Identification of Organic Compounds	3
Chm 420	Biochemistry	3
Chm 551	Topics in Biochemistry	3
Bio 550	Biometrics	3
	Thesis	6

Other electives are also available from the Graduate Chemistry Curriculum.

Other courses may be chosen from the Graduate Biology Curriculum.

		<i>Credits</i>
Bio 552	Biological Instrumentation	3
Bio 553	Biological Instrumentation	3
Bio 512	Radiation Biology	4

d. Electives in other departments may be chosen with the approval of the Chairman of the Department of Chemistry.

THE MASTER'S PROGRAM IN COMMUNICATION ARTS

Statement of Purpose:

Appreciation is shown for the significant traditional aspect of the academic discipline involved in Communication Arts which can be directly linked to the inventions and refinements of the Classical Greek Period; subscription is made to the Aristotelian concept of discovering all possible means of persuasion on any given subject and the utilization of these means in the process of the classical categories of Ethical, Pathetic and Logical proofs.

A critical need is present in our time for a continuous analysis of the basic

principles and the constant development of the necessary skills to meet the ever-present challenges of the modern interpersonal relations ranging from the local to international levels of communication.

Admission Requirements:

The applicant for graduate study in the Department of Communication Arts must meet the following requirements:

1. A Bachelor's degree from a recognized institution of higher learning. In the case of seniors who have almost completed graduation requirements, the Graduate Committee of Communication Arts may permit the taking of graduate courses which will be applied to the MA degree only after the appropriate Bachelor's degree has been awarded.
2. A 2.8 cumulative point average (or the equivalent). The Graduate Committee within the Department will recognize the potential merits of professional experience and maturity in a specific field as a factor for consideration relative to the student's ability.
3. Demonstrate through the medium of undergraduate studies, or professional accomplishment and growth, coupled with satisfactory undergraduate studies, a competent cultural background.
4. Twenty-four semester hours in an area of Communication Arts or demonstrate equivalent skill in a particular field, coupled with satisfactory undergraduate studies.
5. Demonstrate the possession of a comprehensive background in theory and the necessary skill in oral communication.
6. Applicants for an interdisciplinary program must demonstrate the possession of a substantial background in both the major and minor areas of study.
7. Applicants who do not meet the above requirements and yet wish to pursue the graduate program in Communication Arts may, at the discretion of the Graduate Committee of Communication Arts, be admitted as unclassified students. Such students will be assigned appropriate undergraduate credits which will not count toward the graduate degree.
8. Transfer of graduate credit from accredited institutions of graduate learning will be reviewed by the Graduate Committee and may be accepted up to a maximum of six hours.

*Course Requirements:**Plan A (Communication Arts Only)*

1. The student may elect to complete 24 hours of course work and six hours of thesis credit (including an oral defense of the thesis), or
2. 30 hours of course work followed by an oral comprehensive examination.

Plan B (Communication Arts and Interdisciplinary Study)

1. The student may elect to complete not less than 18 hours of study in Communication Arts and not more than 12 hours of study in one of the interdisciplinary areas followed by an oral comprehensive examination by a committee composed of Communications Arts faculty members and a faculty representative from the interdisciplinary area involved, or
2. 12 hours of study in Communication Arts, six hours of thesis credit, and 12 hours of study on one of the inter-disciplinary areas followed by oral comprehensive examinations on both the course work and thesis. The oral comprehensive committee for course study will include both Communication Arts faculty and a faculty representative from the interdisciplinary area; the thesis *must* be done in an area of the communication arts and its oral comprehensive examination committee will be composed of Communication Arts faculty only.

Graduate courses leading to the Master of Arts degree in Communication Arts

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| 1. Introduction to Graduate Study in Communication | 3 cr. hrs. |
| 2. Ethics of Communication | 3 cr. hrs. |
| 3. Persuasion Techniques | 3 cr. hrs. |
| 4. Barriers to Effective Communication | 3 cr. hrs. |
| 5. The Investigation of Listening Problems | 3 cr. hrs. |
| 6. Studies in Communication Skills | 3 cr. hrs. |
| 7. Problems—Seminar | 3 cr. hrs. |
| 8. Communication Designs | 3 cr. hrs. |
| 9. Thesis | 6 cr. hrs. |
| 10. Option Courses—Equivalent of Thesis Requirement: | |
| a. Stage Design | 3 cr. hrs. |
| b. Development of Dramatic Form and Criticism | 3 cr. hrs. |
| c. Problems in Dramatic Presentation | 3 cr. hrs. |
| d. Theatre Seminar | 3 cr. hrs. |

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|--------------------------------------|------------|
| e. Rhetorical Criticism | 3 cr. hrs. |
| f. Advanced Argumentation and Debate | 3 cr. hrs. |
| g. History of Public Address | 3 cr. hrs. |

Communication Arts and Interdisciplinary Study

Certain offerings from the MBA, English, Psychology and Political Science programs have been designated as appropriate for Communication Arts Interdisciplinary Study. A consultation with the Chairman of the Department concerned is required. Information on applicable courses may be obtained from the Department of Communication Arts.

THE MASTER'S PROGRAM IN ENGLISH

Statement of Purpose:

The Master's program in English is designed to offer the opportunity for an intensified study of English and American literature, and to develop in the student a competence in independent research and in the exercise of sound literary judgment.

Specific Requirements of the Department:

a. Undergraduate prerequisites: The student seeking admission must have completed studies in English and American literature which will enable him to pursue his graduate studies with distinction. He will ordinarily have completed, with a grade point average of at least 3.00, twenty-four semester credit hours in literature, of which at least eighteen hours were in upper-division courses. Graduate Record Examination scores may be required as part of the applicant's materials.

b. Specific degree requirements: Normally thirty credit hours are required. Every applicant, after twelve hours with a grade of at least 2.75, will be given a diagnostic examination and interview. Exceptionally well qualified students could earn the master's degree in less than thirty hours; students with deficiencies may be required to take up to thirty-six graduate hours.

c. Obligatory courses: English 595, Research and Bibliography, and either English 587, Studies in the History of Criticism, or English 588, Studies in Criticism, are required of all applicants for the degree. The remainder of the student's program should be equally divided between courses from sequence 511 through 538 and sequence 542 through 582.

d. A thesis upon a topic approved by the Graduate Committee of the Depart-

ment for which six hours are granted can be accepted if the interview committee recommends this option.

e. Students who complete eighteen hours by the end of the Third Term, 1969, are held to the requirements as described in the bulletin for 1969-1970.

Course Offerings:

Courses will be offered during the late afternoons or evenings and on Saturday mornings during the First, Second, and first half of the Third Term and during the evening and in the day in the second half (the summer session) of the Third Term.

THE MASTER'S PROGRAM IN HISTORY

Statement of Purpose:

The Department of History through its graduate program seeks to develop in the student that combination of mature judgment and scholarly competence associated with the ability to make, compare, test, and evaluate historical conclusions and interpretations.

As a secondary purpose, the program is designed to prepare the student for a successful career in teaching, government services, or specific fields of private endeavor.

Specific Requirements of the Department:

a. Undergraduate prerequisites: Applicants for the graduate program in History must have completed a total of twenty-four semester credit hours of History, and achieved a grade point average of at least 3.00 in all History courses.

b. One theoretical or methodological course is required of all students in the Master Degree Program in History. Students may choose between the following two courses:

Hst. 600 Historiography

Hst. 650 The Philosophy of History

c. The candidate must take at least three 600-level courses in addition to Hist. 600 or 650 and in the case of thesis writers, Hst. 699.

d. Up to six credit hours of work may be taken outside the History Department with the approval of the Chairman.

e. Requirements for the Master degree in History:

OPTION A

1. Thirty credit hours of acceptable course work and research including three credits for either Hst. 600 or Hst. 650 (see b. above), six credits for the thesis (Hst. 699), and three other 600-level courses (see c. above).
2. An oral comprehensive examination in the field of the thesis. Detailed instructions regarding this examination may be obtained from the Chairman of the Department.
3. Foreign language competence in the thesis area. An examination to show competence may be required at the discretion of the thesis advisor.

OPTION B

1. Thirty-three credit hours of acceptable coursework including three credits for either Hst. 600 or Hst. 650 (see b. above), and three other 600-level courses exclusive of Hst. 699 (see c. above).
2. A comprehensive examination. Detailed instructions regarding this examination may be obtained from the Chairman of the Department.
3. This program is recommended for students who do not plan to enter a doctoral program.

Course Offerings:

Courses will be offered in the late afternoon and evening hours for the convenience of teachers and other employed persons except during the Third Term, Second Session, when courses will be offered in the morning hours only.

***THE MASTER'S PROGRAM IN INFORMATION SCIENCE**

Statement of Purpose:

The Master of Science in Information Science program provides the training needed to attack problems men face in organizing and controlling mass amounts of data generated and used by individuals and institutions. The program provides an integrated outlook for the application of computer, psychological and engineering principals to the receipt, classification, communication, cataloging, storing, retrieval, presentry and use of data regardless of its subject matter. The program

*The Department of Information Science will be terminated at the end of this year. For information concerning the future of this program write to the Dean for Graduate Studies and Research.

will provide cross-discipline training in the underlying concepts of information and its use as it relates to various fields, particularly to behavioral sciences, information processing, management, and communication technologies. Human parameters of the information process are emphasized.

Individuals completing the program are expected to be sufficiently trained to cope with problems emerging in the development and implementation of information handling systems in general and computer based systems in particular. Examples of such systems are automated library environments, military command and control, community data systems, medical diagnostic, and computerized educational systems.

Student Status

Each student admitted to the Graduate Program is placed in one of the following categories as defined.

a. Regular Standing

Student meeting all the entrance requirements of the department.

b. Conditional Standing

1. Students in this status are required to complete admission requirements as to preliminary examinations (GRE), letters of recommendation, or specific courses as determined by the Department.
2. Students are considered as probationary pending the results of nine to fifteen hours of graduate work.

c. Special Standing

Students enrolled in graduate courses of the department who may not be necessarily working for a degree.

Candidacy

A graduate student becomes eligible for candidacy when in the judgment of his advisor he has adequately demonstrated ability to satisfy the requirements stipulated in the program for which he was accepted. On the student's part, application for candidacy signifies the intention to complete the degree requirements at the University of Dayton.

Time Limit

The program must be completed within seven years after matriculation. (Period of service in the Armed Forces not included.)

Specific Requirements of the Department

- a. Undergraduate prerequisites:
 1. Completion of Differential and Integral Calculus
 2. Semester of Statistics
 3. 3.0 point average in major (behavioral, physical science, or engineering)
 4. Knowledge of computer language, preferably ALGOL or Fortran.
- b. Specific course requirements for the degree:
 1. Students are required to complete 36 credit hours in the following areas:
 - 9 credit hours in Behavioral Theory
 - 9 credit hours in Computer Science
 - 9 credit hours in Engineering
 - 9 credit hours in Basic Science

According to the background of the students, however, substitution in the above hours and field requirements can be made.
 2. All students are required to register for the graduate seminar (ISc 590) during the first and second terms each year they are in the program.
 3. Minimum B average in course work.
 4. Passing of a written comprehensive examination.
 5. Thesis and oral examination of thesis.

Courses of Instruction:

The following courses meet the requirements in the respective areas outlined. Depending on the undergraduate background of the student, the student may, upon approval of his advisor, substitute different concentration of courses to insure a balanced program of professional training required of an Information Scientist.

a. Behavioral Theory Segment	9 credit hours
ISc 525	Foundations of Behaviorial Theory (3)
ISc 553	Information Presentation (3)
ISc 565	Sociology of Information Systems (3)
ISc 570	Human Communication (3)
ISc 571	Man-Machine Communication (3)
ISc 576	Computational Linguistics
ISc 580	Human Information Processing (3)
Psy 508	Advanced Experimental Psychology (3)
Psy 530	Learning
Psy 531	Learning Theory

- Psy 532 Theories of Perception
- Psy 533 Decision Processes (3)
- Psy 541 Computer Applications to Behavioral Science (3)

b. Computer Science Segment 9 credit hours

- ISc 510 Computers and Research Design (3)
- ISc 510L Computers and Research Design Laboratory (1)
- ISc 576 Computational Linguistics (3)
- Cps 399 Special Problems in Computer Science (1-3)
- Cps 481 Mathematical Logic (3)
- Cps 499 Special Topics (3)
- Ele 501 Analog and Digital Computers (3)

c. Basic Science (Methods) Segment 9 credit hours

- ISc 501 Introduction to Information Science (3)
- ISc 503 Introduction to Cybernetics (3)
- ISc 510 Computers and Research Design (3)
- ISc 510L Computers and Research Design Laboratory (1)
- ISc 515 Mathematics and Information Science (3)
- ISc 516 Advanced Statistical Application to Information Science (3)
- ISc 520 Communication Theory (3)
- ISc 550 Information System Technology (3)
- ISc 560 Organization and Retrieval of Information (3)
- ISc 570 Human Communication (3)
- ISc 575 Artificial Intelligence (3)
- ISc 576 Computational Linguistics (3)
- Ine 430 Engineering System Design (I) (3)
- Ine 521-2 Operations Research, I and II (3-3)
- Ine 544 Systems Analysis, Design and Evaluation (3)
- Cps 367 Statistics (3)
- Psy 501 Advanced Statistics (3)

d. Engineering Segment 9 credit hours

- ISc 550 Information System Technology (3)
- ISc 553 Information Presentation (3)
- ISc 571 Man-Machine Communication (3)
- ISc 575 Artificial Intelligence (3)
- Ine 421 Reliability Theory (3)
- Ine 422 Reliability Application (3)

- Ine 430 Engineering Systems Design (I) (3)
- Ine 502 Simulation Techniques in Operations Research (3)
- Ine 509 The Engineering Management (3)
- Ine 521-2 Operations Research, I & II (3-3)
- Ine 525 Reliability (3)
- Ine 544 Systems Analysis, Design & Evaluation (3)
- Ele 515/Egr. 525 Automatic Control Theory (3)
- Egr. 525 Automatic Control Theory (3)

THE MASTER'S PROGRAM IN MATHEMATICS

Statement of Purpose:

The Department proposes to offer graduate studies in Mathematics in order to give an opportunity for properly prepared persons to acquire skills in those branches of Mathematics normally studied after the Baccalaureate degree. The curriculum is intended to serve as a firm basis for doctoral studies and research.

Specific Requirements of the Department:

- a. Undergraduate prerequisites:
 - Mth 229 Differential Equations (or equivalent)
 - Mth 361 Introduction to Abstract Algebra
(or equivalent)
 - Mth 421-2 Advanced Calculus (or equivalents)
- b. Graduate requirements:

The candidate selects his courses under the guidance of the Chairman. He should have a proficiency in Real and Complex Analysis, as well as in two of the following four areas: Applied Mathematics, Statistics, and Topology.
- c. Requirements for the Degree:
 1. Thirty course hours: These may include 6 hours of undergraduate courses chosen from Mth 411, 413, Probability and Statistics, I, II, and III; a maximum of 6 hours of approved courses outside the department; a maximum of 6 hours for a thesis in special cases.
 2. Within three months of the expected date of graduation, the student must successfully pass a written examination in analysis plus a written examination in two of the following four areas: Algebra, Applied Mathematics, Statistics, and Topology.

3. An oral examination must be passed successfully within a month of the expected date of graduation.
4. Although no foreign language is required, a student may be expected to read assigned papers in German or French.

THE MASTER'S PROGRAM IN PHILOSOPHY

Statement of Purpose:

The purpose of the graduate program in Philosophy is to provide an atmosphere for independent study and research, in which the student can gain a more comprehensive knowledge and deepen his understanding of the major philosophical positions, develop his powers of critical analysis and his ability to apply philosophical principles to the solution of present-day problems. Our program has been designed to enable our graduates to continue their doctoral studies in other universities.

Students working toward the Master of Arts degree in Philosophy will be subject to the general requirements of the College of Arts and Sciences program and to the specific requirements given below.

Specific Requirements of the Department:

a. Undergraduate Prerequisites: For a Master's degree in Philosophy, the student must have had at least twenty-four credit hours in undergraduate philosophy.

b. Advanced Undergraduate Courses Open to Graduate Students: Normally only one course will be permitted. In exceptional cases the Director of graduate studies could give permission for a second course. It is understood, however, that any graduate student taking an approved undergraduate course must give evidence of a deeper and more mature knowledge of this course than a regular undergraduate.

c. Requirements in Terms of Credit Hours for an M.A. in Philosophy: The student must take a minimum of thirty hours in graduate work, six of which are given for a thesis.

d. Qualifying Examinations: Each student must pass two qualifying examinations in the History of Philosophy. The first examination is scheduled in early December and covers Ancient and Medieval Philosophy; the second is scheduled in early April and covers Modern Philosophy. The student will be tested on his familiarity and understanding of the selected primary sources stated in the lists of reading specifically prepared for these tests. The department feels that a good

and solid background of the historical development of philosophical thought is essential to the program. These qualifying examinations have been devised to insure that every student has this background.

e. Thesis Requirement: A written thesis will be required of all students in this program.

1. An outline of a thesis project prepared according to departmental instructions will be submitted in triplicate no later than two months before the end of the term immediately prior to the tentative graduation date. The student will not be granted his M.A. candidacy prior to the approval by the Graduate Committee of his thesis project.
2. Three copies of the thesis must be submitted for study the first Monday of either November or March.
3. The student must give evidence of having complied with the corrections indicated by the official readers of his thesis.
4. Three final copies of the corrected thesis must be submitted no later than the first Monday of December or April.
5. An oral defense of the thesis will be held *only* after the fulfillment of all the requirements listed above.

f. Language Requirement: All graduate students of Philosophy are strongly urged to learn at least one or two foreign languages as a means to improve their professional skills. However, there is no mandatory requirement of any language for their Master program at this University. Nevertheless, any student who should decide to take the language examination could do so and, if approved, will have this examination in his official records.

g. Application for Candidacy: Every student must formally apply for candidacy for the M.A. in Philosophy only after he has:

1. Passed the two qualifying examinations.
2. Completed 18 hours of graduate work.
3. Obtained official approval of his thesis project.

Courses of Instruction:

A distinctive feature of the graduate program in Philosophy is the emphasis on the continuity of philosophic inquiry from the ancient and medieval era to the modern period. Each graduate student will arrange his program upon consultation with the Director of Graduate Studies in Philosophy.

Phl 503	Philosophy of Man
Phl 510	Philosophy of Science
Phl 540	Aristotle's <i>De Anima</i> and St. Thomas' Commentary
Phl 541	Texts of Plato
Phl 542	Texts of Aristotle
Phl 543	Texts of Presocratic Philosophers
Phl 545	Modern French Philosophy
Phl 550	Philosophy of History
Phl 553	Kantianism I
Phl 554	Kantianism II
Phl 555	Modern German Philosophy
Phl 556	Philosophy of Hegel
Phl 560	Modern British Philosophy
Phl 565	American Pragmatism
Phl 570	Existentialist Philosophy
Phl 571	Perception and Knowledge
Phl 575	Contemporary Philosophies of Evolution
Phl 576	Contemporary Problems in the Philosophy of God
Phl 580	Contemporary Naturalism and Realism
Phl 585	Phenomenology
Phl 590	Directed Studies
Phl 591	Seminar
Phl 592	Analytic Philosophy
Phl 594	Symbolic Logic

THE MASTER'S PROGRAM IN PHYSICS

Statement of Purpose:

Basically the Master's program in the Department of Physics serves the stated purpose of the University by giving the student a thorough understanding and appreciation of his chosen discipline. Advanced study in physics may be used in several immediate ways:

- a. To prepare for an advanced degree (Ph.D.) program;
- b. To qualify the student for research and development careers in industry and government;
- c. To enrich the backgrounds of teachers of physics on the secondary school level.

Specific Requirements of the Department:

a. Undergraduate requirements: An applicant will be admitted to advanced study in physics if the graduate admission committee of the Department determines he is qualified to take the degree program. In general, a properly prepared student should have the following background:

1. Physics courses which are approximately the equivalent of University of Dayton courses.

Phy 303-4	Intermediate Mechanics
Phy 408-9	Advanced Electricity & Magnetism
Phy 301	Thermodynamics
Phy 390	Introduction to Quantum Mechanics
Phy 421	Nuclear Physics

2. Mathematics through Differential Equations and preferably Advanced Calculus.

The applicant will be required to make up any deficiencies which the Department deems necessary to bring him to the level of the graduate course.

b. Specific requirements for the degree: The formal requirements for the degree are thirty credit hours of course work properly distributed plus examinations and possibly a thesis as indicated in the following:

1. The "core sequence" normally required of all degree students.¹

Phy 511	Classical Mechanics	three credit hours
Phy 515	Statistical Mechanics	three credit hours
Phy 523	Electromagnetic Theory I	three credit hours
Phy 524	Electromagnetic Theory II	three credit hours
Phy 525	Quantum Mechanics I	three credit hours
Phy 526	Quantum Mechanics II	three credit hours

2. Other recommended Graduate courses in physics.

Phy 512	Classical Theory of Fields	three credit hours
Phy 520	Advanced Solid State Physics	three credit hours
Phy 521	Advanced Nuclear Physics	three credit hours
Phy 531	Advanced Graduate Laboratory	three credit hours

3. Courses in related disciplines.

These may be chosen in related fields, mathematics, chemistry, etc. up to

¹Substitutions may be made with the approval of the Chairman of the Department.

a maximum of six credit hours with the approval of the Chairman of the Department.

4. Advanced undergraduate courses.

A maximum of six credit hours of graduate credit may be granted for advanced undergraduate courses which are approved by the graduate student's Faculty Advisor.

NOTE: Courses for which undergraduate credit has been allowed may not be repeated for graduate credit.

5. Thesis credit.

A Master's degree thesis is recommended for those students who have no comparable experience. An oral examination before a committee designated by the Chairman of the Department must be passed before credit can be given. A maximum of six credit hours can be given for thesis work.

6. Comprehensive examinations.

A series of six examinations covering basic physics subjects on the Intermediate Level must be passed satisfactorily by the candidate for a Master's degree. These written exams, each of several hours duration, should be taken as soon as possible in the student's graduate career.

7. Language requirement.

No foreign language requirement is necessary for the Master of Science in Physics; however, students are expected to be sufficiently familiar with computer programming to solve basic problems in Physics using the computer.

THE MASTER'S PROGRAM IN POLITICAL SCIENCE

Statement of Purpose:

The Department of Political Science offers two graduate programs: The Master of Arts in Political Science is an academic degree which is designed to prepare the student for further graduate work at the Ph.D. level, or to enable him to teach at the junior college or college level.

The Master of Public Administration is a professional degree which is designed to prepare students for administrative work in a public or private organization. A student who wishes a research-oriented program in public administration should take the M.A. program with thesis.

Requirements for Degree in Respective Programs:

A. Master of Arts in Political Science

1. Thirty credit hours of course work including thesis. A student writing a thesis can take a maximum of six hours for his work.
2. A minimum of B average in all course work.
3. Thesis and comprehensive examination.
 - a. Students are normally encouraged to write a thesis. The comprehensive examination for these students will consist of an inquiry into the methodology and content of the thesis plus the student's course work.
 - b. Some students may elect to take further course work in lieu of the thesis. For these students, the comprehensive examination will consist of an inquiry on the materials covered in all the courses taken.

Course Requirements:

1. Core Courses:

- a. Pol 514 History of Political Theory or
 Pol 569 Seminar: Political Theory.
 The latter course may be taken if the student has already the equivalent of Pol 514 as an undergraduate or at another graduate school.
- b. Pol 501 Scope and Methods of Political Science

2. Elective Courses:

- a. A minimum of one course from each of the following four areas excluding the core courses:
 1. American Politics and Institutions
 - Pol 508 Seminar: American Foreign Policy
 - Pol 509 Seminar: National Security Policy
 - Pol 510 Public Administration
 - Pol 521 Intergovernmental Relations
 - Pol 545 Seminar: Urban Politics
 - Pol 557 Seminar: State Governments and Politics
 - Pol 574 Seminar: American Politics
 - Pol 575 Science and Public Policy
 - Pol 577 Municipal Governments
 2. Public Law, Theory, and Methodology
 - Pol 560 Seminar: American Political Thought
 - Pol 567 Studies in Political Science
 - Pol 569 Seminar: Political Theory

Pol 571 Seminar: Constitutional Law

Pol 572 Administrative Law

Pol 573 Seminar: Civil Liberties

3. International Relations

Pol 506 Political Geography

Pol 530 Seminar: International Law

Pol 589 Seminar: International Relations

4. Comparative Politics

Pol 520 Seminar: Politics of Developing Nations

Pol 522-528 Seminar: Comparative Politics

Pol 522 Soviet Union

Pol 523 East Europe

Pol 524 Western Europe

Pol 525 Africa

Pol 526 Latin America

Pol 527 Far East

Pol 528 Southeast Asia

Pol 582 Comparative Public Administration

Pol 585 Seminar: Soviet Foreign Policy

b. The remainder of the student's course work must be chosen from the graduate course offerings of the Political Science Department in consultation with the student's adviser or the Department Chairman.

3. Cognate Courses: Students may take a maximum of six hours of course work in other social science fields with the approval of his adviser or the Department Chairman.

B. Master of Public Administration

1. Thirty credit hours of course work

2. A minimum of B average on all course work

3. Government internship

4. Comprehensive examination

This is an inquiry into the materials covered in the core and elective courses.

Course Requirements:

1. Core Courses:

Pol 510 Public Administration

Pol 581 Organizational Theory

2. Elective Courses: The student may elect the remainder of his course work

from the following graduate courses in the Political Science Department in consultation with his adviser or the Director of the Public Administration Program.

- Pol 508 Seminar: American Foreign Policy
- Pol 514 History of Political Theory
- Pol 535 Fiscal Administration
- Pol 540 Problems in Public Administration
- Pol 545 Seminar: Urban Politics
- Pol 552 Government Planning
- Pol 557 Seminar: State Governments and Politics
- Pol 560 Seminar: American Political Thought
- Pol 571 Seminar: Constitutional Law
- Pol 572 Administrative Law
- Pol 573 Seminar: Civil Liberties
- Pol 574 Seminar: American Politics
- Pol 575 Science and Public Policy
- Pol 576 Public Personnel Administration
- Pol 577 Municipal Governments
- Pol 578 Studies in Public Administration
- Pol 582 Comparative Public Administration

3. Internship: Students who have not had administrative experience in government must complete two terms of Pol 595 Government Internship. This requirement may be waived in part or entirely, depending upon the length and character of the student's experience.
4. Cognate Courses: A student may, with the consent of his adviser or the Director of the Public Administration Program, elect a maximum of two courses offered in other departments of the College of Arts and Sciences, or in the Schools of Business Administration, Education, or Engineering, provided they relate to his professional or career interests.

THE MASTER'S PROGRAM IN PSYCHOLOGY

Statement of Purpose:

The Department of Psychology offers three graduate programs.

The Clinical M.A. program is designed to provide the student with a comprehensive and unified theoretical frame of reference which will enable him to observe keenly and think creatively in his specific field of scientific and professional

endeavors; adequate measurement tools for exact, yet meaningful and relevant research; and a sound professional orientation to the practice of clinical psychology. Its immediate objective is to prepare the student for further graduate work at the Ph.D. level, or to enable him to secure interim employment.

The Master of Arts program in Experimental Psychology prepares the student for duties as research psychologist in government, industry and the University. The program objective is to develop a firm understanding of Experimental Psychology based upon competence in research methodology, quantification, and theoretical understanding of psychological processes. The laboratory and course work is preparatory to advanced study at the Ph.D. level.

The Master of Arts degree in General Psychology is designed to prepare the student for teaching at the college or junior college level, or to prepare the student for further work at the Ph.D. level.

Student Guidance

The student enrolled in the graduate program of the department is provided with the *Student's Guide to Graduate Study in the Department of Psychology*. The Guide provides specific elaboration of the procedures to be followed by the student in completing his graduate studies.

Student Status

Each student *admitted* to the Graduate Program is placed in either of the following categories as defined.

a. *Regular Standing*

Student meeting all the entrance requirements of the department.

b. *Conditional standing*

1. Students in this status are required to complete admission requirements as determined by the department.
2. Students are considered as *probationary* pending the results of nine to fifteen hours of graduate work.

c. *Unclassified*

Students enrolled in graduate courses of the department who may not be necessarily working for a degree.

Candidacy

A graduate student becomes eligible for candidacy when in the judgment of his advisor he has adequately demonstrated ability to satisfy the requirements stipulated in the program for which he was accepted. On the student's part, applica-

tion for candidacy signifies the intention to complete the degree requirements at the University of Dayton.

Time Limit

The program must be completed within seven years after matriculation. (Period of service in the Armed Forces not included.)

Specific Entrance Requirements for all Programs

Undergraduate prerequisites for admission as a regular student:

1. Three credit hours of College Algebra
2. 3.0 point average in Psychology
3. As a minimum, 3 credit hours in Experimental Psychology and 3 hours in Statistics, plus 6 hours in upper level Psychology.

Course Requirements for Degree in Respective Programs

a. Master of Arts in Psychology (Clinical)

1. Formal Requirements

- a. 37 credit hours of course work including thesis.
- b. Minimum B average in course work.
- c. Passing of a comprehensive examination.
Details on the examination are included in the *Student's Guide to Graduate Study*.
- d. Thesis and oral examination of Thesis.

2. Course Requirements

Theoretical frame of reference

- Psy 536 History of Psychology as a Human Science I (3)
 Psy 537 History of Psychology as a Human Science II (3)
 Psy 567 Theories of Personality (3)
 Psy 568 Theories of Psychotherapy (3)

Quantitative Methods

- Psy 501 Advanced Statistics (3)
 Psy 593 Mathematical Psychology I (3)
 Psy 594 Mathematical Psychology II (3)

Professional Orientation

- Psy 552 Clinical Psychology (3)

- Psy 516 Projective Techniques (4) (OR)
Psy 515 Assessment of Intelligence (4)
- Psy 517 Small Group Function (3) (OR)
Psy 519 Practicum in Projective Techniques (3)
- Psy 566 Clerkship (3)
- Psy 599 Thesis (3)

3. Extra-course requirement: Attendance to a regularly scheduled seminar on selected issues in clinical psychology, and to occasional specialized workshops.
4. Thesis: The thesis is viewed as a creative endeavor. Exact measurement is emphasized, but allowance is made for other projects of high competence and relevance.

b. Master of Arts in Psychology (Experimental)

1. Formal Requirements

- a. 33 credit hours of course work including thesis.
- b. Minimum B average in course work.
- c. Passing of a comprehensive examination.
Details on the examination are included in the *Student's Guide to Graduate Study*.
- d. Thesis and oral examination of Thesis.

2. Course Requirements

- Psy 501 Advanced Statistics (3)
- Psy 508 Advanced Experimental Psychology (3)
- Psy 531 Learning Theory (3)
- Psy 532 Theories of Perception (3)
- Psy 536 History of Psychology as a Human Science I (3)
- Psy 537 History of Psychology as a Human Science II (3)
- Psy 565 Psychophysiology (3)
- Psy 593 Mathematical Psychology I (3)
- Psy 594 Mathematical Psychology II (3)
- Psy 596 Experimental Research (3)
- Psy 599 Thesis (3)

3. Extra-course requirement: Attendance to a regularly scheduled seminar on selected issues in Experimental Psychology.

c. Master of Arts in Psychology (General)

1. Formal Requirements

- a. 33 credit hours of course work including thesis.
- b. Minimum B average in course work.
- c. Passing of a comprehensive examination.
Details on the examination are included in the *Student's Guide to Graduate Study*.
- d. Thesis and oral examination of Thesis.

2. Course Requirements

- Psy 501 Advanced Statistics (3)
- Psy 593 Mathematical Psychology I (3)
- Psy 594 Mathematical Psychology II (3)
- Psy — Electives (selected concentration with permission of Advisor) (21)
- Psy 599 Thesis (3)

- 3. Extra-course requirement: Attendance to a regularly scheduled seminar on selected issues in Psychology.

THE MASTER'S PROGRAM IN THEOLOGICAL STUDIES

Statement of Purpose:

The graduate program in Theological Studies is conceived as a broad comprehensive approach to the study of Religion and Theology. Its major concern is to develop in the degree candidate a methodology whereby he may approach the field with five major concerns: a solid grasp of Sacred Scripture, the historical development of western theological thought, the comparative study of world religious phenomena, an ecumenical awareness, the establishment of an interdisciplinary mentality. The program is conceived both as a preparation for specialization on the doctoral level and as a terminal program for those with other interests and needs.

The unique facilities afforded by the Marian Library allow the offering of special electives in Mariology.

Specific Requirements of the Department:

- a. Undergraduate prerequisites: An applicant is admitted to graduate study if the admitting committee of the Department is satisfied that the applicant is fully qualified to undertake graduate study. Graduate Record Examination scores are required as a part of the applicant's materials. After admission each student

must take a diagnostic exam in the areas of biblical, historical and systematic theology. These examinations will assist the student and his advisory committee to formulate his program of studies. Any deficiencies revealed by the examinations must be made up during the first two terms of residency.

b. Specific course requirements for the degree: The candidate must take a minimum of thirty-three hours of course work. The student must take six or seven courses in one program area and four or five courses in the other areas. The program areas are:

1. Scripture, either Old Testament or New Testament
2. Historical Theology
3. Systematic Theology

c. With permission undergraduate courses on the 400 level in Theological Studies and in Judaics may be taken for graduate credit to a maximum of six credit hours. Courses for which undergraduate credit has been received may not be repeated for graduate credit.

d. Language requirement: At the completion of 9 credit hours or one term of residence the candidate will be required to demonstrate a working knowledge of a modern language. At the completion of 18 credit hours or two terms of residence he must demonstrate a working knowledge of Latin, Greek, or Hebrew if one of these is required for his major area of study.

e. Comprehensive examination: At the completion of the program of studies a written and oral comprehensive examination must be taken.

f. Major papers: Each student must write four major papers, usually one each term. Two of these are in his major area; the other two in two other areas.

Program for the M.A. in Theological Studies:

The program leading to a Master's degree in Theological Studies may be pursued in Summer Sessions or full-time, throughout the year. It must be completed within seven calendar years. Another program in Theological Studies is offered conjointly by the University of Dayton and St. Leonard College. Details of this program along with the descriptions of the courses offered at St. Leonard can be found in the catalog of St. Leonard College, Centerville, Ohio. ✓

The University is an active member of the Consortium for Higher Education Religious Studies (CHERS) which provides the possibility of dialogue with students in the other eleven member institutions. It makes possible the interchange of faculties, cross-registration, sharing of library resources, and innovative programming.

The following are member schools: Antioch College, Central State University, Hama School of Theology, Hebrew Union College, Payne Theological Seminary, St. Leonard College, Union Theological Seminary, University of Dayton, Western College for Women, Wilberforce University, Wittenberg University and Wright State University.

The Department of Theological Studies and the University of Dayton is a member of the Consortium of the Hebrew Union College Biblical and Archeological School of Jerusalem. This consortium of more than fifty colleges, universities and seminaries makes available to the faculty and students the resources of the Biblical and Archeological School of Jerusalem for further study and also for Travel and/or Maintenance Fellowships.

