

Graduate School 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 :

THE MASTER'S PROGRAM 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 enable the student to pursue studies toward more advanced degrees.
- b. To qualify the student for industrial and governmental careers in the field of Applied Biology.
- c. To equip teachers for scholarly competence in Biology.

Specific Requirements of the Department:

a. Undergraduate prerequisites: An applicant is admitted if the admissions committee of the Department is satisfied that the applicant is fully qualified to undertake the degree program.

The following undergraduate prerequisites are recommended :

- (1) A total of 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.
- (2) Two semesters each of General Chemistry and Organic Chemistry.
- (3) Two semesters of Physics.
- (4) Two semesters of Mathematics, usually Algebra and Trigonometry.

The graduate student may be required to fulfill undergraduate prerequisites before he

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

b. Seminars : Graduate students are required to participate in seminars conducted by the Department of Biology. A maximum of two graduate credit hours will be permitted for these seminars.

c. Requirements for the Master's Degree in Biology :

- (1) Thirty credit hours of acceptable course work and research. The graduate student is permitted three to six credit hours for research.
- (2) The graduate student must have included in his academic record, either at the undergraduate or graduate level, courses in Genetics, Physiology, Microbiology and Histology.
- (3) Pro-Seminar : Will be offered at regular intervals to satisfy University requirements ; may be replaced by Phl 505 : Inter-Disciplinary Seminar.
- (4) A general written examination following the completion of a major portion of the course requirements.
- (5) The presentation and acceptance of a thesis based on the student's laboratory research problem. At the discretion of the departmental Graduate Committee, the graduate student may be permitted to present an acceptable thesis based on an exhaustive literature research or a project approved by the Department.

Course Offerings:

The program is designed so that part-time students will be able to obtain the Master's degree in five terms of late afternoon, evening, and summer sessions.

The course offerings for 1964-65 are as follows :

First Term—August 1964 :

- Bio 407 Embryology
- Bio 410 Radiation Biology
- Bio 411 General Bacteriology
- Bio 501 Seminar
- Bio 599 Thesis

Second Term—January 1965 :

- Bio 412 Human Genetics
- Bio 416 Pathogenic Bacteriology
- Bio 501 Seminar
- Bio 590 Pro-Seminar (Phl 505)
- Bio 599 Thesis

THE MASTER'S PROGRAM IN CHEMISTRY

Statement of Purpose:

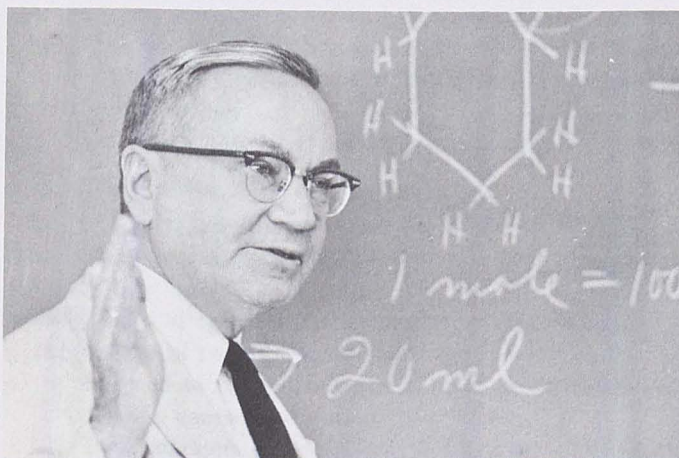
The purpose of the Master's program in Chemistry is to present to the student a rigorous approach to modern theories in Chemistry, and to increase his desire and potential toward fundamental research through a program of literature search and laboratory experimentation.

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. Requirements in terms of credit hours for the Master's Degree in Chemistry: Twenty-four credit hours of course work and six credit hours of research are required. A thesis based on the research, which may be an exhaustive literature search, is required. Every thesis must be approved by a Thesis Committee, appointed by the Chairman of the Department.





The following courses are required :

- Chm 503 Advanced Inorganic Chemistry
- Chm 504 Advanced Inorganic Chemistry
- Chm 505 Advanced Organic Chemistry
- Chm 506 Advanced Organic Chemistry
- Chm 507 Advanced Physical Chemistry
- Chm 508 Advanced Physical Chemistry
- Chm 510 Pro-Seminar or Phl 505 Inter-Disciplinary Seminar
- Chm 520-521 Research

Electives:

Three hours of electives which may be taken from the following listing. Other electives may be chosen with the approval of the Chairman of the Chemistry Department.

- Chm 511 Biochemistry
- Chm 514 Advanced Analytical Chemistry
- Mth 421 Advanced Calculus I
- Phy 420 Introduction to the Solid State
- Phy 440 X-Rays

Course Offerings:

The program is designed so that part-time students will be able to obtain the Master's degree in five terms of late afternoon and evening sessions.

The course offerings for 1964-65 are as follows :

First Term—August 1964 :

- Chm 507 Advanced Physical Chemistry
- Chm 511 Biochemistry
- Chm 520 or 521 Research

Second Term—January 1965 :

- Chm 508 Advanced Physical Chemistry
- Chm 514 Advanced Analytical Chemistry
- Chm 520 or 521 Research

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 should be submitted as part of the applicant's materials.

b. Specific degree requirements: Two options are possible:

Option A. Twenty-four credit hours of course work, a thesis for which six hours are granted, a language examination, and a special examination in the area of the thesis.

Option B: Thirty credit hours of course work which culminates in a written comprehensive examination.

Neither option is regarded as a terminal master's. The selection would depend upon the student's preparation, interest and vocational objective.

c. Obligatory core course: English 592, Philosophical and Critical Foundations of Literature or an equivalent Philosophical course is required of all applicants for the degree.

d. Number and kind of courses: Any of the 400 course offerings in English up to six hours maximum can be included in the master's program if taken by a student enrolled in the graduate program. These are the 400 courses listed in the University catalog.

e. Credit hours in an allied field: Six semester credit hours may be taken in an allied field upon approval of the Chairman of the Department.

f. Thesis: A thesis upon a topic approved by the Graduate Committee of the Department is required of all students who elect Option A.

g. Language requirements: Students electing Option A must demonstrate a reading knowledge of one foreign language. French or German is preferred.

h. Comprehensive examination: All students electing Option B must pass a written comprehensive examination upon six of seven periods of English and American literature. Detailed instructions concerning this examination may be obtained from the Department Chairman.

Courses of Instruction:

All of the courses listed below would meet for two hours but yield three hours credit. The starred courses can be repeated for graduate credit when the topic or content changes.

- *505 Creative Writing
- 511 Middle English
- *514 Studies in Medieval Literature
- 516 Chaucer I
- 517 Chaucer II
- *522 Studies in 16th Century Literature
- 526 Shakespeare I
- 527 Shakespeare II
- *532 Studies in 17th Century Literature
- *536 Studies in Drama to 1642
- *538 Studies in Milton
- *542 Studies in 18th Century Literature
- *546 Studies in the Novel
- *552 Studies in Romanticism
- *556 Studies in 19th Century Literature
- *562 Studies in 20th Century Literature
- *566 Studies in the Drama Since 1660
- 572 Transcendentalism in 19th Century American Literature
- *576 Major American Writers
- *582 Studies in American Literature Since the Civil War
- 590 Teaching of College English (required of and open to assistants only)
- 592 Philosophical and Critical Foundations of Literature
- 595 Research and Bibliography
- 599 Thesis (three to six credit hours)

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 must have achieved a grade point average of at least 3.00 in all History courses.

b. Number and kind of courses allowed for advanced undergraduate and graduate students: A maximum of six graduate credit hours may be taken from the upper level course offerings in History or in an allied field (see "e" below). These are the 300 and 400 courses listed in the University catalog.

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



c. Courses required of all students in the Master's Program in History :

Hst 500 Historiography

Hst 550 The Philosophy of History or Phl 505 Inter-Disciplinary Seminar

Hst 545 Seminar in Non-American History or

Hst 595 Seminar in American History

d. Credit hour requirement for the Master's degree in History : A minimum of thirty semester credit hours is required for the Master's degree in History. Nine semester credit hours must be taken from the list of required courses ; fifteen semester credit hours may be taken from the list of subject matter courses ; six semester credit hours will be granted for the thesis.

e. Credit hours in an allied field : Six semester credit hours may be taken in an allied field upon approval of the Chairman of the Department.

f. Thesis : A thesis is required of all candidates for the Master's degree in History. A maximum of six semester credit hours will be granted for the successful completion of the thesis (Hst 599).

g. Examination : An oral comprehensive examination must be passed by the candidate in his final term of study at least two weeks prior to graduation. Detailed instructions concerning this examination may be obtained from the Department Chairman.

Courses of Instruction:

Hst 500 Historiography

Hst 501 Greek and Roman Civilization

Hst 505 Great African States

Hst 506 Medieval Civilization

Hst 521 Tudor-Stuart England

Hst 522 Victorian England

Hst 528 Soviet Union since 1917

Hst 531 The Civilization of the Far East

Hst 540 Interpretations in World History

Hst 545 Seminar in Non-American History

Hst 550 The Philosophy of History

Hst 552 The American Revolution

Hst 555 The Immigrant in America

Hst 570 The Old South

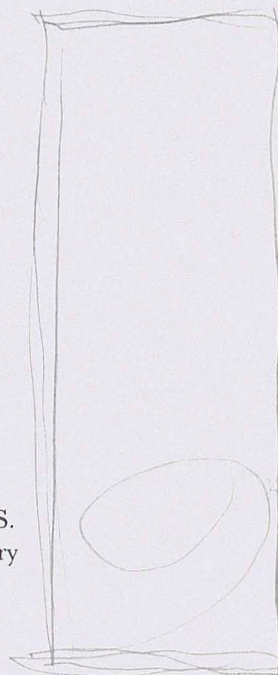
Hst 580 History of the Labor Movement in the U.S.

Hst 585 Science and Technology in American History

Hst 590 Interpretations in American History

Hst 595 Seminar in American History

Hst 599 Thesis



Course Offerings:

The program is designed so that students will be able to obtain the Master's degree in five terms of summer, late afternoon and evening sessions.

The course offerings for 1964-65 are as follows:

Third Term (1st Session) 1964:

- Hst 302 Renaissance and Reformation
- Hst 545 Seminar in Non-American History
- Hst 599 Thesis

Third Term (2nd Session) 1964:

- Hst 380 Diplomatic History of the United States
- Hst 403 History of Modern Communism
- Hst 528 Soviet Union since 1917
- Hst 590 Interpretations in American History
- Hst 599 Thesis

First Term—August 1964:

- Hst 550 Philosophy of History
- Hst 599 Thesis

Second Term—January, 1965:

- Hst 552 The American Revolution
- Hst 599 Thesis

NOTE: Additional courses on the 300 and 400 level will be offered each term which may be taken for Graduate credit subject to the restrictions in 2b above.

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 301	three hours
Mth 361	three hours
Mth 421-422	six hours

NOTE: (1) Other courses in Advanced Analysis may replace Mth 422 in this requirement.

- (2) All 400 courses in the Department may be allowed for graduate students in Mathematics, except Mth 421.

b. Graduate requirements :

(1) Obligatory courses as follows :

Mth 521-522	Real Variables	six hours
Mth 525	Complex Variables	three hours
Mth 561 or	Abstract Algebra	three hours
565	Linear Algebra	three hours
Mth 471 or	Topology	three hours
571	Linear Topological Spaces	three hours
Mth 599	Philosophical Foundations of Mathematics	three hours

(2) Requirements for Degree :

Thirty hours, as follows :

18 hours of required courses listed above as obligatory.

6 hours maximum of advanced undergraduate courses chosen from 400 courses.

6 hours maximum of approved courses outside of Department.

(3) A thesis with a maximum of six credit hours shall be permitted only in exceptional cases.

(4) No foreign language as such shall be required, but the students may expect to be assigned reading from Journals and Reference Works in French or German.

Courses of Instruction:

Mth 411-412-413	Probability and Statistics
Mth 417	Numerical Analysis
Mth 421-422	Advanced Calculus
	(Mth 421 not offered for graduate credit to students in Mathematics.)
Mth 432	Fourier Series
Mth 461	Complex Variables
Mth 465	Modern Operational Methods
Mth 471	Topology
Mth 521-522	Real Variables
Mth 525-526	Complex Variables
Mth 531-532	Advanced Differential Equations
Mth 535-536	Partial Differential Equations
Mth 541-542	Operational Methods
Mth 545	Special Functions
Mth 551-552	Methods of Mathematical Physics
Mth 555-556	Advanced Numerical Analysis

Mth 561	Abstract Algebra
Mth 565-566	Linear Algebra and Matrices
Mth 571-572	Linear Topological Spaces
Mth 575	Differential Geometry
Mth 599	Philosophical Foundations of Mathematics

Course Offerings:

The program is designed so that part-time students will be able to obtain the Master's degree in five terms of late afternoon and evening sessions.

The course offerings for 1964-65 are as follows:

First Term—August 1964:

Mth 411	Probability and Statistics I
Mth 413	Probability and Statistics III
Mth 461	Introduction to the Theory of Functions of a Complex Variable
Mth 525	Complex Variables I
Mth 561	Abstract Algebra

Second Term—January 1965:

Mth 412	Probability and Statistics II
Mth 471	Topology
Mth 526	Complex Variables II

Another 500 course to be determined



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 Thomistic philosophy and of other major philosophical positions, develop his powers of critical analysis and his ability to apply philosophical principles to the solution of present-day problems.

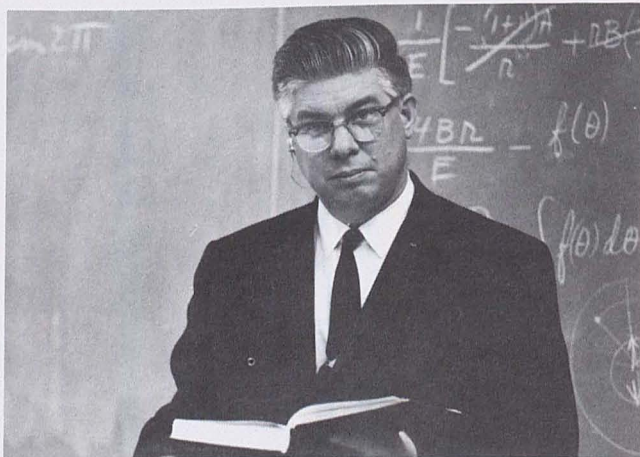
Students working toward the Master of Arts degree in Philosophy will be subject to the general requirements of the Graduate School of Arts and Sciences program and to the specific requirements given below.

Specific Requirements of the Department:

a. Undergraduate Prerequisites: For a Master's degree in Philosophy, the student must have had the following undergraduate courses: Logic, Cosmology, Philosophical Psychology, Epistemology, General Metaphysics, Natural Theology, Ethics, History of Greek, and Medieval Philosophy.

b. Advanced Undergraduate Courses Open to Graduate Students: Only two courses are permitted. Offerings will be restricted to a choice from the following:

- Phl 408 History of Modern Philosophy
- Phl 410 History of Political Philosophy
- Phl 430 Philosophy of Plato
- Phl 432 Philosophy of Aristotle
- Phl 434 St. Thomas Aquinas



c. **Obligatory Core Courses :** Six credit hours of core courses will be required of all regular students for the M.A. in Philosophy. The courses which constitute the core are listed under "Courses of Instruction" as Phl 515 and Phl 525.

d. **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. At the discretion of the Chairman, six of these hours may be taken in an allied field, as listed in Courses of Instruction, (3), (c), in this Outline.

e. **Thesis Requirement :** A thesis will be required of all students in this program. An outline of his thesis should be submitted by the student to the Chairman three months prior to the expected graduation.

f. **Language Requirement :** All students will be required to pass an examination on their reading knowledge of a foreign language. A reading knowledge of philosophical Latin, of French or of German will satisfy this requirement.



Courses of Instruction:

A distinctive feature of the Graduate Program in Philosophy is the special emphasis on Modern Philosophy.

a. Core Courses :

- Phl 515 Methods of Research in Philosophy Seminar
- Phl 525 Thomistic Texts and Commentaries
- Phl 540 Aristotle's De Anima and St. Thomas' Commentary

b. Areas of Concentration :

- Phl 545 Modern French Philosophy
- Phl 555 Modern German Philosophy
- Phl 560 Modern British Philosophy
- Phl 565 The History and Literature of American Philosophy
- Phl 570 Existentialist Philosophy

c. Allied Fields :

- Thl 500 Philosophy of Religion
- Edu 502 Comparative Philosophies of Education
- Phl 504 Philosophy of Art
- Phl 505 Inter-Disciplinary Seminar
- Hst 550 Philosophy of History

Program for the M.A. In Philosophy:

The program is so designed that part-time students will be able to obtain the Master's degree in five terms of late afternoon, evening, and summer sessions.

Course Offerings:

First Term—August 1964 :

- Phl 570 Existentialist Philosophy
- Phl 408 History of Modern Philosophy

Second Term—January 1965 :

- Phl 525 Thomistic Texts and Commentaries
- Phl 505 Inter-Disciplinary Seminar

Summer 1965 :

- Phl 565 The History and Literature of American Philosophy

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. The graduate student may use his advanced study in Physics in several immediate ways:

- a. As a preparation 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-Phy 304	Intermediate Mechanics
Phy 408-Phy 409	Advanced Electricity & Magnetism
Phy 301	Thermodynamics
Phy 404	Physical Optics
Phy 311-Phy 321	Atomic & 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. Courses required of all degree students.

Phy 511	Classical Mechanics	three credit hours
Phy 513	Electromagnetic Theory	three credit hours
Phy 516*	Philosophical Basis of Modern Physics	three credit hours
Phy 517	Quantum Mechanics	three credit hours

*Phl 505 may be substituted for Phy 516.

2. At least six hours must be chosen from the following group of courses.

Phy 515	Statistical Mechanics	three credit hours
Phy 520	Advanced Solid State Physics	three credit hours

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| Phy 521 | Advanced Nuclear Physics | three credit hours |
| Phy 531 | Advanced Graduate Laboratory | three credit hours |
| Phy 599 | Special Problems | one to three credit hours |
3. Courses in related disciplines.
These may be chosen in related fields, Mathematics, Chemistry, etc. up to 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 three hour written and one hour oral examination in the general field of physics is given under the direction of the graduate student adviser. This examination must be passed satisfactorily by the candidate for a Master's degree.
 7. Language requirement.
No specific language requirement is necessary for the degree of Master of Science in Physics.

Course Offerings:

The program is designed so that qualified part-time students will be able to obtain the Master's degree in five terms of late afternoon and evening sessions. The course offerings for 1964-65 are as follows:

First Term—August 1964

- | | |
|---------|-----------------------|
| Phy 511 | Classical Mechanics |
| Phy 515 | Statistical Mechanics |

Second Term—January 1965

- | | |
|---------|------------------------------|
| Phy 513 | Electromagnetic Theory |
| Phy 517 | Quantum Mechanics |
| Phy 531 | Advanced Graduate Laboratory |

THE MASTER'S PROGRAM IN THEOLOGICAL STUDIES

Statement of Purpose:

The graduate program of Theological Studies, leading to the degree of Master of Arts in that subject, is designed to satisfy the desire of religious and laity for a scientific training in sacred truth. It is of special value to teachers of Christian doctrine, for it provides them with a thorough grasp of the deep realities of Catholic theology, which is essential for effective teaching.

With the truth of the Incarnation as its core, the program follows a systematic curriculum of Catholic theological study. Courses in related fields are likewise offered. Because of the Marianist tradition at the University of Dayton, and the unique facilities afforded by the Marian Library, special programs will be offered in Mariology and the social apostolate. Thus the student will be given the opportunity for a deeper understanding of Catholic theology and an orientation toward his role in the Marian apostolate of the Church.

Specific Requirements of the Department:

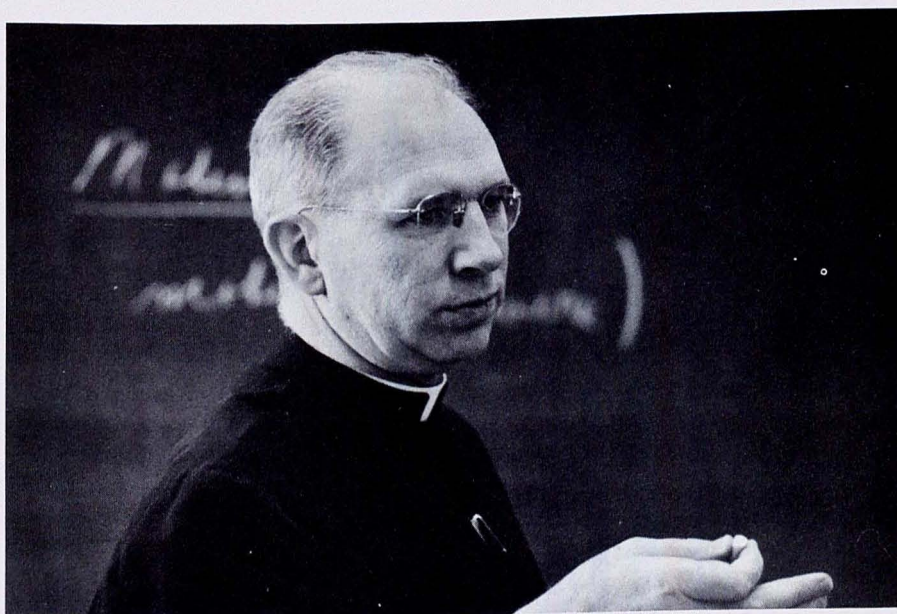
- a. Undergraduate prerequisites: Ordinarily, thirty hours of undergraduate theology and philosophy are required.
- b. Use of advanced undergraduate courses in the graduate program: Not more than six graduate semester credit hours of the student's total graduate program may be selected from designated upper-division courses. All four hundred courses except 406, 407, and 408 are "designated upper-division courses."
- c. Obligatory core courses: Among the graduate courses, 500 and 501 are courses in "allied fields" and must be taken by all candidates for the Master's Degree in Theological Studies.
- d. Types of programs and specific requirements of each: The department offers two programs leading to a Master of Arts in Theological Studies:
 - (1) An Academic Program: Twenty-four hours of content courses plus six hours for a thesis. The twenty-four hours must include six hours of core courses, twelve hours from a chosen field of concentration, and six hours from the other area of concentration. All who elect this program must have a reading knowledge of a foreign language (Latin, French, German, Italian, or Spanish) in order to pursue profitably the work of a thesis.
 - (2) A Professional Program: Thirty hours of content courses with a monograph on a problem defined in a seminar, preferably toward the end of the student's graduate studies. The thirty hours ordinarily include six hours of core courses, fifteen hours from a chosen major field of concentration, and nine hours from the other area of concentration.

Program for the M.A. In Theological Studies:

The program leading to a Master's degree in Theological Studies is offered only in the Summer Sessions. It must be completed within seven calendar years. A full-time program in Theological Studies is offered conjointly by the University of Dayton (the core courses) and St. Charles Seminary (the areas of concentration). Details of this program, along with the descriptions of the courses offered at St. Charles, can be found in the Catalog of St. Charles Seminary, Carthagen, Ohio.

Courses of Instruction:

- a. Core courses : (six hours) Common to all programs.
 - Thl 500 Philosophy of Religion (Prerequisite: Phl 207)
 - Thl 501 History of Religion
- b. Areas of concentration : (Nine to fifteen hours)
 - (1) The Advent of the Incarnation : Mariology
 - Thl 505 Theology of Incarnation
 - Thl 520 Role of the Mother of God in the Incarnation
 - Thl 521 Privileges of the Mother of God
 - Thl 522 History of Mariology
 - Thl 590 Seminar with Monograph
 - Thl 599 Thesis



(2) The Incarnation in History: The Church and the Apostolate

Thl 540 The Church of Christ

Thl 541 Church and State

Thl 542 The Catholic Church in America

Thl 543 Missiology: The Missionary Movement in the Church

Thl 544 Theological Perspectives of the Apostolate

Thl 545 Canon Law for the Laity

Thl 590 Seminar with Monograph

Thl 599 Thesis

Course Offerings:

Summer 1964:

Thl 500 Philosophy of Religion

Thl 501 History of Religion

Thl 541 Church and State

Another 500 course to be determined

Summer 1965:

Thl 500 Philosophy of Religion

Thl 501 History of Religion

Thl 505 Theology of Incarnation

Another 500 course to be determined

