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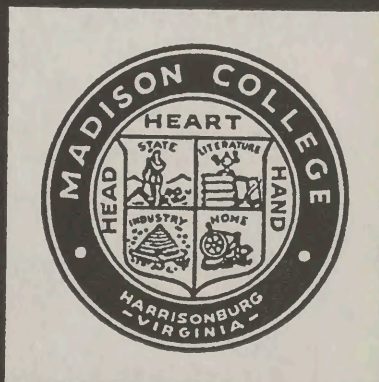
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BULLETIN MADISON COLLEGE

HARRISONBURG, VIRGINIA



GRADUATE PROGRAM

VOL. XX, NO. 2

MARCH, 1962

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BULLETIN

MADISON COLLEGE

ACCREDITED BY: Southern Association of Colleges and Secondary Schools, National Council on the Accreditation of Teacher Education for Preparation of Elementary Teachers and Secondary Teachers with the Master's Degree as the Highest Degree Offered, Virginia State Board of Education.

MEMBER OF: Association of American Colleges, Association of Virginia Colleges, American Association of Colleges for Teacher Education, American Council on Education, National Commission on Accrediting, Association of State Colleges and Universities.

CORPORATE MEMBER OF: American Association of University Women.

Contents

	<i>Page</i>
STATE BOARD OF EDUCATION.....	3
OFFICERS OF ADMINISTRATION.....	4
GRADUATE COUNCIL.....	4
FOREWORD	5-6
ADMINISTRATION OF THE GRADUATE PROGRAM.....	7
ADMISSION TO GRADUATE STUDY.....	7-8
ADMISSION TO CANDIDACY FOR A DEGREE.....	8-9
REQUIREMENTS FOR THE MASTER'S DEGREE.....	9-11
Academic Requirements.....	9-10
Residence Requirements	10
Examination Requirements	10
Thesis Requirements.....	10-11
STUDENT ADVISORY PLAN.....	10-11
GRADES	12
TIME LIMIT	12
MAJOR AND MINOR FIELDS.....	12
EVENING GRADUATE CLASSES.....	13
GRADUATE OFFERING:	
Art	13
Biology	14-16
Business and Business Education.....	17-20
Chemistry	20-22
Education and Psychology.....	22-35
English	35-38
Home Economics.....	38-40
Mathematics	40-42
Music	42-46
Physical and Health Education.....	47-49
Science	50
Social Science and History.....	51-56

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Foreword

This bulletin has been prepared to give information about the program of graduate studies leading to the Master's degree at Madison College, which was inaugurated with the beginning of the 1954-55 session. Teachers holding the bachelor's degree have been seeking the opportunity, in increasing numbers, to pursue advanced professional studies and to secure the Master's degree as evidence of more thorough preparation for instructional and administrative duties and of eligibility for better salary rating.

Many graduates of liberal arts colleges, now teaching in the public schools, desire to qualify for the Collegiate Professional Certificate that they, too, may become more effective teachers. They are aware that such additional studies may lead to a graduate degree; and since the work may be done in summer and evening courses, they are requesting that the opportunity be made available to them.

Basic to any graduate program are a qualified corps of instructors, a library adequate to support research, and ample facilities for laboratory work and observation. On the basis of these criteria, Madison College is prepared to offer a graduate program of high quality.

The members of the Madison faculty participating in the graduate program are exceptionally well qualified, nearly all of whom hold a doctor's degree and have experience in research and administration.

The book and periodical collection of the Madison Memorial Library has been carefully selected to enrich the educational program of the College. The collection is outstanding in the field of education and psychology (including human growth and development) and is strong in the fields of English, American history, and the professional areas of science education, business education, home economics, music education, and physical and health education. Standard works in the humanities, the social sciences, and the natural sciences are available. The bound files of periodicals are adequate to support research at the Master's degree level. Facilities for the use of the

micro-film are provided and inter-library loan arrangements with scholarly libraries of the region quickly bring to the campus the uncommon items needed by graduate students. A staff of five librarians regularly assist students in their bibliographical research.

Facilities for the laboratory sciences in Burruss Science Hall, completed in 1953, are ample for advanced study in biology, chemistry, and physics. The standard office machines needed for the study of business education are available in the Business Education Department. The Speech and Hearing Clinic, the Reading Center and Posture and Body Mechanics Clinic provide opportunities for practice and observation in these areas. A fuller description of the facilities of the College may be seen in the catalog of the regular session.

It is our hope that college graduates and others properly qualified to undertake graduate work will find in this bulletin the information they seek preparatory to entering upon a program of studies leading to the Master's degree at Madison College. Further assistance may be had by writing directly to the Dean of the College.

THE GRADUATE PROGRAM OF MADISON COLLEGE

AUTHORIZATION

Madison College was authorized by the State Board of Education at its meeting in March, 1954, to offer the degrees of Master of Arts in Education and Master of Science in Education. On October 31, 1960, the State Board of Education authorized the College to offer the Master of Science degree.

ADMINISTRATION

The Graduate Council of the College has the responsibility of formulating all policies and legislation affecting graduate curricula and work leading to graduate degrees. The Council has full power to make all necessary rules and regulations and to approve candidates for degrees, subject to conformity with policies of the State Board of Education.

The Dean of the College is chairman and the executive officer of the Graduate Council.

ADMISSION TO GRADUATE STUDY

The applicant must possess a bachelor's degree from a college regarded as standard by Madison College and by a recognized regional or national accrediting agency. Application forms for admission may be obtained from the Dean of the College, who serves as chairman of the Graduate Council. These forms should be completed and returned to the Dean before the opening of the term in which the applicant desires to enroll. Each applicant must also submit a transcript of his undergraduate record and of any graduate

work completed. The applicant's record must be approved by the Graduate Council before he is admitted to candidacy for a graduate degree. If the undergraduate record shows a deficiency in the proposed major or minor fields of study, the applicant must make up the deficiency by taking such additional courses as may be required by the Graduate Council. Such courses, if required, do not count for graduate credit. Admission to graduate study does not imply admission to candidacy for a degree.

STUDENT ADVISORY COMMITTEES

The Graduate Council in cooperation with the student and departments concerned shall name a special Advisory Committee of three faculty members for each student working toward a degree. For the Master of Arts in Education and the Master of Science in Education degrees, one member of this Committee will be selected from the faculty of the student's major department, one from the department in which the student is minoring, and the third from some other department of the College. The faculty member from the major department shall serve as chairman of the Advisory Committee. The Dean of the College is an *ex officio* member of all Advisory Committees. He, or someone designated by him, will serve as chairman for all oral examinations.

For the Master of Science degree, the head of the department in which the student is majoring shall serve as chairman of the Advisory Committee. A second member of the major department and a third member of the faculty from some other department will complete the committee. The major professor under whom the thesis is being completed must be a member of the committee.

A Graduate Advisory Committee will not be appointed until the student has been admitted to candidacy for a degree.

ADMISSION TO CANDIDACY FOR A DEGREE

In order to insure that the graduate degree represents a high quality of work, candidates for the degree will be selected carefully.

The applicant shall not be admitted to candidacy for a degree until he has demonstrated sufficient aptitude for graduate work in courses taken at Madison.

After completion of a minimum of nine semester hours at Madison College, with at least three semester hours credit in each of the proposed major and minor fields, the candidate for the degree must submit the results of the Graduate Record Examination and a transcript of the grades obtained at Madison College to the Council for examination. After discussion with the Department Heads involved, the Graduate Council will pass on the application.

REQUIREMENTS FOR THE MASTER OF ARTS IN EDUCATION AND THE MASTER OF SCIENCE IN EDUCATION DEGREES

Academic Requirements. The candidate must complete (a) twenty-four semester hours of graduate work and submit a thesis, or (b) thirty semester hours of graduate work without a thesis, for the degree of Master of Arts in Education or the degree of Master of Science in Education, depending upon the concentration. The degree of Master of Arts in Education will be used for those graduate students whose majors or minors are in the Humanities' fields and the social science fields, and the degree of Master of Science in Education will be used for those graduate students who are carrying majors or minors in mathematics, science, and certain special subject fields. A student who is majoring in education may apply for either the Master of Arts in Education or the Master of Science in Education degree. It is understood that independent research will be required in all programs. The candidate must earn a grade of "B" or better in each course. At least forty per cent of the courses included in the student's program shall be those designated as exclusively for graduate students. No graduate credit will be granted for work done in any course to which undergraduates are admitted unless the student is enrolled in that course as a graduate student.

At least eighteen semester hours of the student's work (or twelve semester hours and a thesis) shall be in the major field of

concentration (one field or related fields) with at least nine semester hours in a minor field. Students whose special interests are in elementary education, however, may be permitted six semester hours in each of two related fields with the approval of the Graduate Council. Either the major or the minor must be in the field of education. At least six semester hours of the minor must be obtained by taking courses at Madison College. If the applicant does not hold the Collegiate Professional Certificate, or its equivalent, he must obtain such a certificate before the degree is conferred unless excused by the Graduate Council.

Residence Requirements. A student must be in residence for at least one academic year or its equivalent in summer sessions before receiving the degree. A summer session of graduate study at another Virginia institution may be accepted toward the residence requirement at Madison.¹ Evening courses held on the campus will be counted in meeting residence requirements at Madison.

Examination Requirements. If the student does not write a thesis the final comprehensive examination will be written. If the student does write a thesis the final comprehensive will be oral.

A candidate who fails on the comprehensive examination may be permitted a re-examination at the discretion of the student's major department and the Graduate Council. A re-examination cannot be given sooner than the semester following the unsuccessful examination.

Thesis Requirements. A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment of the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work.

Students who elect additional course work in lieu of a thesis must earn a total of thirty semester hours in graduate courses.

¹Subject to approval of Southern Association of Colleges and Secondary Schools.

The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded.

The thesis shall consist of a written interpretation of a body of facts and opinions gained through critical reading and independent research. There must be an adequate analysis of the assembled data. The thesis must be prepared according to the general requirements established by the Graduate Council and must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability. Three unbound copies of the thesis must be filed with the Chairman of the Graduate Council not later than two weeks before the date of graduation.

REQUIREMENTS FOR THE MASTER OF SCIENCE DEGREE

Academic Requirements. The candidate must complete twenty-four hours of graduate work *and submit a thesis*. A minimum of eighteen hours must be completed in the major field. No graduate credit will be given for a grade below "B". At least forty per cent of the courses included in the student's program shall be those designated as exclusively for graduate students. No graduate credit will be granted for work done in any course to which undergraduates are admitted unless the student is enrolled in that course as a graduate student. If the applicant does not hold the Collegiate Professional Certificate, or its equivalent, he must obtain such a certificate before the degree is conferred unless excused by the Graduate Council.

CREDITS BY TRANSFER

Six hours of graduate work from an accredited college or university may be applied to the requirements for the degree upon approval of the head of the major department and the Dean of the College. At least six semester hours of the minor must be in graduate courses taken at Madison College. Approval to take graduate courses at other institutions must be obtained prior to enrolling in the courses.

SCHOLARSHIP REQUIREMENTS

The grades given in graduate courses are A, B+, B, C and F. Graduate students must receive a mark of "B" or better in a course if it is to count in meeting requirements for a Master's degree.

After a student is admitted to candidacy for a Master's degree, he is automatically placed on probation as soon as he receives a grade below "C" in any course or a grade of "C" in as many as two courses. The courses need not be taken simultaneously. Probation is a warning that achievement is not satisfactory. A student on probation will not be permitted to continue his graduate work if he earns a grade of "C" or below in any subsequent course.

Petition for special consideration may be filed with the Chairman of the Graduate Council if the student feels that circumstances outside his control prevented him from doing work of higher quality. All such petitions will be acted upon by the Graduate Council.

TIME LIMIT

A graduate student is expected to complete all requirements for the degree within six years from the time he begins his graduate study. The Graduate Council may, however, permit an extension of time because of extenuating circumstances.

MAJOR AND MINOR FIELDS

As the graduate program of the College develops, students will have the opportunity to minor in most of the following fields and to major in many of them: art, biology, business education, chemistry, education and psychology, English, geography, history, home economics, mathematics, music, physical and health education, physics, social science and sociology.

GRADUATE COURSES IN SUMMER SESSIONS

Beginning with the 1955 Summer Session graduate courses were offered in the Intersession and in a Six-Week Session which

followed the Intersession. Courses offered during the Intersession have fifteen class meetings of two hours and forty minutes each and give three semester hours of credit. Graduate courses taught during the Six-Week Session meet for one hour and twenty minutes, five days a week. Each course gives three semester hours of credit. By attending both the Intersession and the Six-Week Session a student may earn a total of nine semester hours of credit.

By attending the Intersession and Six-Week Session and by taking evening classes at Madison College or extension classes during the regular sessions, it is possible for a student to complete the work for a Master's degree in two calendar years.

REQUIREMENTS FOR MAJORS AND MINORS, AND COURSE DESCRIPTIONS

The courses offered in each department participating in the graduate program are listed on the pages that follow. A few of the courses listed are taught in the evening during the winter session. A much more comprehensive offering is available in the summer.

At least six semester hours of the minor must be in graduate courses taken at Madison College.

Courses with numbers from 100 to 200 are open to approved undergraduates. Courses numbered 200 and above are for graduate students only.

DEPARTMENT OF ART

The graduate program of the Department of Art has these aims: (1) to expand the candidate's subject matter background; (2) to give the professional teacher an opportunity to learn contemporary techniques, psychology and philosophy of this area for direct application to his job; (3) to introduce the candidate to research; (4) and to give the candidate practice in creative work in the space arts on a higher level than is possible in undergraduate work.

In order to meet the requirements for a minor, the candidate must take Art 150, Art 200 and any one of the divisions of Art 100.

ART 100. PRACTICE OF ART.

- 100a. Painting. 3 credits.
- 100b. Crafts. 3 credits.
- 100c. Ceramics. 3 credits.
- 100d. Sculpture. 3 credits.
- 100e. Graphics. 3 credits.

Creative work on an advanced level, with study of both historic and contemporary procedures.

ART 150. PROBLEMS IN TEACHING ART.

3 credits.

An intensive study of the current philosophies and psychology of art education for all levels. Analysis of administrative and evaluative procedures.

ART 200. THE CRITICISM OF ART.

3 credits.

Study of basic questions existing in art philosophy and esthetics.

DEPARTMENT OF BIOLOGY

The graduate program of the Department of Biology has three aims: (1) to supplement the candidates subject matter background and to emphasize the impact of Biological principles on the economic and social problems of our times; (2) to give to the professional teacher an opportunity to learn techniques of value for actual class-room experience; (3) to introduce all students to research, the one fundamental method by which our knowledge progresses.

All students majoring in the department will be required to take at least one of the field courses, i.e., Bio. 100, 110, 112. The remainder of a major program should be selected from courses in the 200 series.

A prerequisite for the Master of Science degree is Math. 58, Elementary Statistics, or its equivalent.

All candidates for the Master of Science degree will be required to take Bio. 300, Thesis, for six credits. Selection of the

thesis topic must have the approval of the chairman of the department.

Students minoring in Biology should take at least one field course.

BIO. 100. VERTEBRATE ECOLOGY.

3 credits.

A course designed to acquaint students with the fundamental relationships existing between animals and their environment. Emphasis will be placed on the dynamic aspect of ecology and its importance to mankind. The laboratory will consist of group discussion sessions and selected field trips throughout the Shenandoah regions.

BIO. 102. VERTEBRATE PHYSIOLOGY.

3 credits.

A study of vertebrate systematic function. Particular emphasis will be given to the quantitative interpretation of muscle contraction and the nerve impulse. Laboratory exercises will involve the use of vertebrate forms to demonstrate specific functional phenomena.

BIO. 110. GENERAL ENTOMOLOGY.

3 credits.

A laboratory and field study of the common insects, their morphology, life histories, and their relationship to plants, animals, and man. Collection, identification, and preservation of local insects by standard methods.

BIO. 112. PARASITOLOGY.

3 credits.

A general survey of the most important parasites of man with special emphasis on those parasites commonly found in Virginia. The course deals mainly with the fields of protozoology, helminthology and medical entomology. The laboratory is devoted to the collection, identification and the preparation of permanent mounts of the parasites.

BIO. 130. PRINCIPLES OF GENETICS.

3 credits.

A study of the facts and principles of biological inheritance.

BIO. 140. DEVELOPMENTAL ANATOMY OF HIGHER PLANTS.

3 credits.

A study of the origin, growth, differentiation, and maturation of cells, tissues, and organs and their interrelationships. Emphasis is placed on economically important structures of crop, ornamental, and forest plants.

BIO. 200. PHYSIOLOGY OF RESPIRATION.

3 credits.

A comparative study of breathing and respiration in selected invertebrates and vertebrates including man. Consideration will be given to the Emden-Meyerhoff and Krebs cycles. Prerequisite: Chem. 35-36.

BIO. 210. HISTOLOGY.

3 credits.

The study and identification of tissues. Practical work in the mounting and staining of selected material.

BIO. 220. CYTOLOGY.

3 credits.

A study of plant and animal cells with emphasis upon nucleus and cytoplasm. Also the preparation of materials for study which involves fixing, staining, and mounting.

BIO. 230. THE SEED PLANTS.

3 credits.

The morphology and physiology of the Spermatophyta. Prerequisite: Biol. 30 or equivalent.

BIO. 240. MODERN THEORIES IN BIOLOGY.

3 credits.

A study of the meaning, value, and necessity of theories as they are related to man, the animal and plant worlds, and to nature in general. Illustrations showing how theories and progress are related.

BIO. 250. SURVEY OF RADIATION BIOLOGY.

3 credits.

A study of the effect of ionizing radiation on the organism. The nature and source of these radiations will be discussed as well as their effect and methods of protection against them. Prerequisites: Bio. 27, Chem. 35, Physics 1-2 or Physics 9. Recommended antecedents: Chem. 38, Physics 37.

BIO. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

DEPARTMENT OF BUSINESS AND BUSINESS EDUCATION

The graduate program of the Department of Business and Business Education is so planned that the student may achieve the objectives of (1) the improvement of teaching, (2) personal and professional development, and (3) ability to do research.

A major in business education consists of eighteen semester hours of approved courses in business and business education; nine semester hours in education; and three elective semester hours. A minor in business education consists of nine semester hours of approved courses in business and business education. The Master of Science degree in Education is awarded upon the successful completion of the graduate program in business education.

B. E. 120. ADVANCED STUDIES IN THE BASIC BUSINESS SUBJECTS.

3 credits.

Advanced studies for the improvement of the teaching of General Business, Business Law, Economics, Consumer Business Education, and related areas.

B. E. 130. ADVANCED STUDIES IN THE SKILL BUSINESS SUBJECTS.

3 credits.

Advanced studies for the improvement of the teaching of Typewriting, Shorthand, and Bookkeeping.

B. E. 150. CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION.

3 credits.

Principles, practices and problems in the evaluation and construction of business education curricula to meet the needs of youth and adults in a democratic society.

B. E. 210. PROBLEMS IN BUSINESS EDUCATION.

3 credits.

Consideration of individual problems in business. Topics covered will include guidance, placement, follow-up, community surveys, tests and measurements, and related areas.

B. E. 230. SEMINAR IN AMERICAN BUSINESS.

3 credits.

Comprehensive review of current books, magazines, and materials in the areas of Marketing, Banking, Taxation, Selling, Exchanges, Economic Conditions, and other areas essential to improved business understandings.

B. E. 250. READING AND RESEARCH.

3 credits.

Examination of approved research procedures for business education. Preparation of reports from assigned field problems applied to various research techniques.

B. E. 260. ECONOMIC SYSTEMS OF THE WORLD.

3 credits.

The major types of economic systems, Socialism, Communism, Fascism and Capitalism, will be analyzed and compared with special attention given to national and world affairs and international relations. The distribution of wealth and income, public debt, and business cycles will be explained and compared.

(Also listed as S. S. 260.)

B. E. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability. If a thesis is elected, B. E. 250 will not be taken.

BUSINESS EDUCATION MAJOR

REQUIRED COURSES

Semester Hours

B. E. 120.	Advanced Studies in the Basic Business Subjects	3
B. E. 130.	Advanced Studies in the Skill Business Subjects	3
B. E. 150.	Curriculum Construction in Business Education	3
<i>or</i>		
B. E. 210.	Problems in Business Education	3
B. E. 230.	Seminar in American Business	3
<i>or</i>		
S. S. 260.	Economic Systems of the World	3

BUSINESS EDUCATION MINOR

REQUIRED COURSES

B. E. 120.	Advanced Studies in the Basic Business Subjects	3
<i>or</i>		
B. E. 130.	Advanced Studies in the Skill Business Subjects	3
B. E. 230.	Seminar in American Business	3
<i>or</i>		
S. S. 260.	Economic Systems of the World	3

SUGGESTED ELECTIVE COURSES IN BUSINESS

BUS. 75.	Cost Accounting	3
BUS. 76.	Federal Income Tax Accounting	3
BUS. 87.	Marketing	3
BUS. 88.	Money and Banking	3
BUS. 89.	Personnel Administration	3
BUS. 97.	Advanced Accounting	3
BUS. 98.	Advanced Accounting	3

DEPARTMENT OF CHEMISTRY

A graduate major or minor in chemistry should be built around the needs and interests of the student. A major in chemistry will consist of 18 semester hours of graduate work in chemistry (or in a related field) subject to the approval of the head of the department; and a minor in chemistry will consist of nine semester hours of graduate work in chemistry. The student plans his program with the help of the head of the department.

CHEM. 101. ADVANCED INORGANIC CHEMISTRY.

3 credits.

A course in fundamental concepts which deal with the relation of structure to properties, the periodic system, typical reactions and applications of physical chemical principles to inorganic systems.

CHEM. 105. THEORETICAL CHEMISTRY.

3 credits.

This course deals with some of the fundamental concepts, laws, theories, and philosophies of chemistry. Considerable emphasis is placed on the practical applications of various chemical laws and concepts. To meet the interests and needs of the student, work will be chosen from the areas of Physical Chemistry, Electrochemistry, and Thermodynamics.

CHEM. 106. THEORETICAL CHEMISTRY.

3 credits.

A continuation of Chem. 105.

CHEM. 110. PHYSIOLOGICAL CHEMISTRY.

3 credits.

This course includes a study of foodstuffs, their digestion and metabolism, respiration, body secretions and excretions, the blood, urine, calorimetry, nutrition, endocrine organs, and vitamins.

CHEM. 120. RECENT DEVELOPMENTS IN CHEMISTRY.

3 credits.

A study of recent developments in such areas of chemistry as solvents, metals and alloys, plastics, petrochemicals, silicones, nuclear chemistry, medicinal, rubber and synthetic polymers, paints, detergents, textiles, etc. The material will be selected and taught in such manner that it will be of especial interest and use to teachers of biology, chemistry, and general science.

CHEM. 130. ADVANCED ORGANIC PREPARATIONS.

3 credits.

Emphasis on advanced laboratory preparations and techniques. Considerable time is devoted to theories and mechanisms of reactions in organic chemistry.

CHEM. 140. ADVANCED TOPICS.

3 credits.

Mostly laboratory work at an advanced level together with conferences and independent reading, adapted to the needs of the individual student.

CHEM. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

DEPARTMENT OF EDUCATION
AND PSYCHOLOGY

MAJOR

The candidate for the degree of Master of Arts in Education or the Master of Science in Education must either major or minor in education.

The candidate for the Master's degree who elects to major in education must successfully complete (a) twenty-four semester hours of work and submit a thesis, or (b) thirty semester hours of work without a thesis. Education 230 is required of all students majoring in education. It is strongly recommended as an elective for those students who minor in education.

The Department of Education and Psychology offers four areas of concentration: Human Growth and Development, Guidance, Instruction, and Administration and Supervision. The pattern of course work required in each of these areas is described below:

I. *Human Growth and Development*

A. Required Courses

Semester Hours

- | | |
|---|---|
| 1. Ed. 184. Human Growth and Development | 3 |
| 2. Ed. 230. Research Methods in Education | 3 |

Semester Hours

One course from two of the following three groups
of courses:

1. Ed. 118. Growth and Development During
Childhood and Preadolescence

or

Ed. 128. The Adolescent Years

2. Ed. 116. Theory and Practice of Guidance 3

or

Ed. 150. Techniques in Counseling

3. Ed. 112. Secondary School Curriculum and
Co-Curriculum 3

or

Ed. 140. Basis of Curriculum Development

or

Ed. 167. Instruction

or

Ed. 191. The Elementary School Curriculum

—
12

B. With Thesis

Ed. 300. Master's Thesis 6

—
18

C. Without Thesis

Two electives from the following: 6

—
18

Ed. 100A. Seminar in Education and Psy-
chology: The Elementary School

Ed. 100B. Seminar in Education and Psy-
chology: Educational Television

Ed. 103. Philosophy of Education

Semester Hours

- Ed. 105. The Role of the School in Society
- Ed. 125C. Teaching of a Subject Field:
Reading
- Ed. 240. The Fundamentals of Educational
Administration
- Ed. 260. The Teaching of the Exceptional
Child
- Ed. 270. Reading Difficulties: Their Diag-
nosis and Correction
- Ed. 290. Reading and Research

II. *Guidance*

A. Required Courses

- 1. Ed. 104. Occupational and Educational In-
formation 3
- 2. Ed. 137. Individual and Group Tests 3
- 3. Ed. 150. Techniques in Counseling 3
- 4. Ed. 210. Organization and Administration
of Guidance Programs 3
- 5. Ed. 230. Research Methods in Education 3

In addition three hours should be selected
from the following three courses to meet
State certification requirements for the Guid-
ance Counselor:

- 1. Ed. 118. Growth and Development During
Childhood and Preadolescence 3
- or*
- 2. Ed. 128. The Adolescent Years
- or*
- 3. Ed. 184. Human Growth and Development

Semester Hours

- B. Since the State Board of Education requires fifteen semester hours for certification in this field, a thesis is not recommended.

III. *Instruction***A. Required Courses**

- | | |
|--|---|
| 1. Ed. 140. Basis of Curriculum Development | 3 |
| 2. Ed. 167. Instruction | 3 |
| 3. Ed. 230. Research Methods in Education | 3 |
| 4. One of the following: | 3 |
| a. Ed. 112. Secondary School Curriculum and Co-Curriculum | |
| Ed. 191. The Elementary School Curriculum | |
| or | |
| b. Ed. 116. Theory and Practice of Guidance | |
| Ed. 118. Growth and Development During Childhood and Preadolescent Years | |
| Ed. 128. The Adolescent Years | |
| Ed. 137. Individual and Group Tests | |
| Ed. 150. Techniques of Counseling | |
| Ed. 184. Human Growth and Development | |

12**B. With Thesis**

- | | |
|--------------------------|---|
| Ed. 300. Master's Thesis | 6 |
|--------------------------|---|

18

Semester Hours

C. Without Thesis

Two of the following:

6

18

Ed. 100A. Seminar in Education and Psychology: The Elementary School

Ed. 100B. Seminar in Education and Psychology: Educational Television

Ed. 103. Philosophy of Education

Ed. 105. The Role of the School in Society

Ed. 125A. Teaching of a Subject Field: Language Arts

Ed. 125C. Teaching of a Subject Field: Reading

Ed. 240. The Fundamentals of Educational Administration

Ed. 260. The Teaching of the Exceptional Child

Ed. 270. Reading Difficulties: Their Diagnosis and Correction

Ed. 290. Reading and Research

IV. *Administration and Supervision*

A. Required Courses

1. Ed. 230. Research Methods in Education 3

2. Ed. 240. The Fundamentals of Educational Administration 3

3. Ed. 250. Supervision and Instruction 3

Semester Hours

4. One of the following:	3
a. Ed. 112. Secondary School Curriculum and Co-Curriculum	
Ed. 140. Basis of Curriculum Develop- ment	
Ed. 167. Instruction	
Ed. 191. The Elementary School Cur- riculum	—
	12
or	
b. Ed. 116. Theory and Practice of Guid- ance	
Ed. 118. Growth and Development Dur- ing Childhood and Preadoles- cence	
Ed. 128. The Adolescent Years	
Ed. 137. Individual and Group Tests	
Ed. 150. Techniques in Counseling	
Ed. 184. Human Growth and Develop- ment	—
	12
B. With Thesis	
Ed. 300. Master's Thesis	6
	—
	18
C. Without Thesis	
Two of the following:	6
	—
	18
Ed. 100A. Seminar in Education and Psychol- ogy: The Elementary School	

- Ed. 100B. Seminar in Education and Psychology: Educational Television
- Ed. 103. Philosophy of Education
- Ed. 105. The Role of the School in Society
- Ed. 125A. Teaching of a Subject Field: Language Arts
- Ed. 125C. Teaching of a Subject Field: Reading
- Ed. 210. Organization and Administration of Guidance Programs
- Ed. 290. Reading and Research

MINOR

The candidate for the Master's degree who elects to minor in education must successfully complete nine semester hours of work. Education 230 is strongly recommended as the elective for the student who minors in education. One course should be selected from *three* of the following five groups of courses:

Semester Hours

- A. One of the following: 3
 - Ed. 118. Growth and Development During Childhood and Preadolescence
 - Ed. 128. The Adolescent Years
 - Ed. 184. Human Growth and Development
 - or*
- B. One of the following: 3
 - Ed. 116. Theory and Practice of Guidance
 - Ed. 137. Individual and Group Tests
 - or*

Semester Hours

- C. One of the following: 3
- Ed. 112. Secondary School Curriculum and
Co-Curriculum
- Ed. 140. Basis of Curriculum Development
- Ed. 167. Instruction
- Ed. 191. The Elementary School Curriculum
or
- D. One of the following: 3
- Ed. 100A. Seminar in Education and Psychology:
The Elementary School
- Ed. 100B. Seminar in Education and Psychology:
Educational Television
- Ed. 103. Philosophy of Education
- Ed. 105. The Role of the School in Society
- Ed. 125A. Teaching of a Subject Field:
Language Arts
- Ed. 125C. Teaching of a Subject Field:
Reading
or
- E. One of the following: 3
-
- 9
- Ed. 220. Comparative Education
- Ed. 240. The Fundamentals of Educational
Administration
- Ed. 250. Supervision of Instruction
- Ed. 260. The Teaching of the Exceptional Child
- Ed. 270. Reading Difficulties: Their
Diagnosis and Correction
- Ed. 290. Reading and Research

COURSE OFFERINGS

ED. 100A. SEMINAR IN EDUCATION AND PSYCHOLOGY:
THE ELEMENTARY SCHOOL.

3 credits.

This course offers the professional worker in the elementary school the opportunity to explore his role in terms of recent experimentation in elementary education.

ED. 100B. SEMINAR IN EDUCATION AND PSYCHOLOGY:
EDUCATIONAL TELEVISION.

3 credits.

This workshop-type experience will explore the role of television and the implications of this medium for education.

ED. 103. PHILOSOPHY OF EDUCATION.

3 credits.

This course includes a critical survey of widely recognized theory regarding the nature and purpose of education in the Western World, with special emphasis upon such theory as it bears on and gives direction to educational policy and practice within the American democracy.

ED. 104. OCCUPATIONAL AND EDUCATIONAL INFORMATION.

3 credits.

A survey of the sources of occupational information and their use in counseling individuals and groups; the philosophy and principles underlying the integration of occupational and educational guidance; the study of community job resources; and plant and industrial visits.

ED. 105. THE ROLE OF THE SCHOOL IN SOCIETY.

3 credits.

Interpretation of the school as society's agency for human betterment, with emphasis on cultural living. Some issues that arise in the organization and operation of the schools.

ED. 112. SECONDARY SCHOOL CURRICULUM AND
CO-CURRICULUM.

3 credits.

The principles and forms of curriculum organization, with appraisal of such curricula patterns as the subject matter curriculum, the correlated, fused, core and experience curriculum are included in this course. Also considered are the techniques for reorganizing the curriculum; leadership in curriculum development, and participation of teachers in curriculum improvement.

ED. 116. THEORY AND PRACTICE OF GUIDANCE.

3 credits.

An overview of the philosophy and function of guidance in public schools, the role of the classroom teacher in the guidance program, and organization for adequate guidance services will constitute the framework of the course. Consideration will be given to topics such as case studies, record keeping, testing, use of occupational information, and techniques of counseling.

ED. 118. GROWTH AND DEVELOPMENT DURING CHILDHOOD
AND PREADOLESCENCE.

3 credits.

The principles underlying the growth and development of boys and girls in the elementary school are explored in this course. Extensive reading and analysis of current research is required.

ED. 125A. TEACHING OF A SUBJECT FIELD: LANGUAGE ARTS.

3 credits.

This course considers teaching principles and techniques in particular subject fields for both elementary and secondary schools. The level of treatment is determined by the group enrolled and by the preferences of the instructor.

ED. 125C. TEACHING OF A SUBJECT FIELD: READING.

3 credits.

This course considers teaching principles and techniques in particular subject fields for both elementary and secondary schools. The level of treatment is determined by the group enrolled and by the preferences of the instructor.

ED. 128. THE ADOLESCENT YEARS.

3 credits.

A study of the dynamics shaping the growth, development, and behavior of the adolescent and youth forms the basis of this course. Extensive analysis and appraisal of current research is required.

ED. 137. INDIVIDUAL AND GROUP TESTS.

3 credits.

The development, administration, and interpretation of standardized tests are considered in this course, as well as the use of such tests in survey programs, in the evaluation of instructional efficiency, and in the planning and improvement of teaching procedures. *A course in Tests and Measurements is strongly recommended before enrolling in Ed. 137.*

ED. 140. BASIS OF CURRICULUM DEVELOPMENT.

3 credits.

This course is designed to help teachers determine what public schools in a democratic society should teach. Also included is the preparation of curriculum guides in all subject fields at both the elementary and secondary school levels.

ED. 150. TECHNIQUES IN COUNSELING.

3 credits.

This course deals with the various techniques employed in the counseling process. Old and new viewpoints are considered and each student is encouraged to develop his own frame of reference.

ED. 167. INSTRUCTION.

3 credits.

This course includes the following: The theory and practice of teaching in democratic school systems, techniques for studying children and youth; the group process in teaching; motivation of learning; teacher-student planning; the broad unit as a teaching instrument, the role of guidance in teaching; the cooperative appraisal of growth.

ED. 184. HUMAN GROWTH AND DEVELOPMENT.

3 credits.

This course deals with the principles basic to an understanding of the growth and development of human beings. The dynamics influencing behavior are explored. Techniques for studying behavior are considered and case materials analyzed.

ED. 191. THE ELEMENTARY SCHOOL CURRICULUM.

3 credits.

This course includes a study of the current practices in curriculum development for the elementary school. The activity program, the fusion of various subject matter areas, the core concept, the development of group activities, and the promotion of creative learning are also considered. Special emphasis is given the role of the teacher in curriculum development.

ED. 210. ORGANIZATION AND ADMINISTRATION OF GUIDANCE PROGRAMS.

3 credits.

A consideration of the theory, organization, and personnel practices involved in organizing and administering guidance programs; the role of the guidance counselor; in-service education and program evaluation. Education 116, or its equivalent, is a prerequisite to this course.

ED. 220. COMPARATIVE EDUCATION.

3 credits.

A comparison of the educational system and philosophy of the United States with those of specific foreign countries is included in this course. Although the emphasis is on recent trends and practices, attention is given to the social, economic, and political problems and developments which brought about progress.

ED. 230. RESEARCH METHODS IN EDUCATION.

3 credits.

This course is designed to develop those skills, insights, and understandings which will enable the student to become both an intelligent consumer and an intelligent producer of educational research.

ED. 240. THE FUNDAMENTALS OF EDUCATIONAL
ADMINISTRATION.

3 credits.

This course deals with such topics as federal, state and local authority and control of education; financial support for public education; problems related to the administration and supervision of pupil personnel, teaching personnel, and of the instructional program.

ED. 250. SUPERVISION OF INSTRUCTION.

3 credits.

In this course supervision is viewed as educational leadership in the improvement of instruction. The implications of research on the nature and scope of supervision are reviewed; current views on cooperative planning of supervisory programs are analyzed; and the improvement of supervisory techniques studied.

ED. 260. THE TEACHING OF THE EXCEPTIONAL CHILD.

3 credits.

This course is designed to assist the classroom teacher in working with all types of deviant children. Methods of working with the bright, the gifted, the dull child, the brain injured, and the emotionally disturbed are explored.

ED. 270. READING DIFFICULTIES: THEIR DIAGNOSIS AND
CORRECTION.

3 credits.

This course is designed for teachers, principals, and supervisors who wish to develop remedial reading programs in their schools. Emphasis is given to administration and interpretation of diagnostic reading tests and to planning remedial teaching based on test results. Methods and materials for use in remedial teaching are demonstrated. (*Offered alternate summers beginning 1960.*)

ED. 290. READING AND RESEARCH.

3 credits.

The student registered for this course is given an opportunity for directed reading and research in areas of his special interest.

ED. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

DEPARTMENT OF ENGLISH

Majors (Required: 9 semester hours. Nine additional hours needed for the major may be chosen from elective courses).

Eng. 101. Growth and Structure of the English Language

Eng. 120. The Practice of Literary Criticism

Eng. 201. Shakespeare

A. The Comedies and Histories

—or—

B. The Tragedies and Histories

Minors (Required: 6 semester hours. The three additional hours needed for the minor may be chosen from elective courses).

Eng. 101. Growth and Structure of the English Language

Eng. 120. The Practice of Literary Criticism

ENG. 101. THE GROWTH AND STRUCTURE OF THE ENGLISH LANGUAGE.

3 credits.

An introduction to the history of the English language with attention to the changing forms of speech as reflected in morphology, phonology, syntax, and semantics. Reading and research in special phases of historical and descriptive grammar.

ENG. 120. THE PRACTICE OF LITERARY CRITICISM.

3 credits.

The history and theories of literary criticism are given brief attention. The major emphasis of the course, however, is upon critical examination and analysis, both oral and written, of representative poems, short stories, and dramas. Students are given ample opportunity to practice literary criticism.

ENG. 130. STUDIES IN AMERICAN LITERATURE.

3 credits.

A study of literary movements and significant authors of several of the periods of American literature will be made in different years.

ENG. 140. POETRY AND PROSE OF THE ENGLISH RENAISSANCE.

3 credits.

The major literary expressions of the English Renaissance from the rise of humanism to Milton, excluding Shakespeare.

ENG. 150. MODERN DRAMA.

3 credits.

A study of the representative plays of modern and contemporary dramatists, beginning with Ibsen, Shaw and O'Neill. Wide reading in the works of the chief contemporary dramatists will be required.

ENG. 170. STUDIES IN SEVENTEENTH-CENTURY LITERATURE.

3 credits.

A study of selected authors and movements in the poetry and prose of the Seventeenth Century. Especial attention to Metaphysical poetry and to the development of modern English prose style.

ENG. 180. STUDIES IN THE POETRY OF THE ROMANTIC MOVEMENT.

3 credits.

A study of romanticism in the works of the precursors, Wordsworth, Coleridge, Byron, Shelley, Keats, and others. The choice of authors to be studied may vary in different years.

ENG. 190. STUDIES IN OLD ENGLISH.

3 credits.

The Old English language with readings in selected poetry and prose of the period.

ENG. 201. SHAKESPEARE.

3 credits.

A study of selected plays by Shakespeare, either of the tragedies and histories or of the comedies and histories.

ENG. 210. STUDIES IN MIDDLE ENGLISH LITERATURE.

3 credits.

Selected examples of Middle English literature from the Norman Conquest to the introduction of printing.

ENG. 220. STUDIES IN RESTORATION AND EIGHTEENTH-CENTURY LITERATURE.

3 credits.

A study of several major authors of the neo-classical period will be made in the context of the cultural and intellectual currents of the time. In some years Dryden, Swift, and Pope will receive chief attention; in others, Dr. Johnson and his contemporaries.

ENG. 230. STUDIES IN ENGLISH LITERATURE OF THE NINETEENTH CENTURY.

3 credits.

The course considers the works of several major authors of the century. The choice of authors for study will vary in different years.

ENG. 240. STUDIES IN CONTEMPORARY LITERATURE.

3 credits.

Poetry and fiction of the most significant contemporary authors will be examined. Choice of authors studied will vary in different years.

ENG. 280. READING AND RESEARCH.

3 credits.

Opportunity is given the individual student for supervised reading and research in the literature of his special interest.

ENG. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

DEPARTMENT OF HOME ECONOMICS

To satisfy the increasing demand for graduate education in all fields of home economics, the department at Madison College offers a limited number of advanced courses.

The graduate courses may be applied toward a minor for the Master's degree.

The graduate courses may be used for renewal of teaching certificates.

Nine hours of graduate work in home economics constitute a minor.

H. E. 110. FAMILY FINANCIAL PROBLEMS.

3 credits.

Analysis of money expenditures of the family in the United States and the use of the family income. Consumer's markets, standards, labels, will be studied with the latest research information on houses, equipment, food, clothing and savings. Prerequisite: Undergraduate course in economics.

H. E. 120. WORLD NUTRITION NEEDS AND FOOD RESOURCES.

3 credits.

The major world nutrition problems of today are analyzed. Identifying causative factors and investigating corrective measures are an integral part of the course.

H. E. 140. CLOTHING CONSTRUCTION TECHNIQUES.

3 credits.

An evaluation of the newer techniques and skills used in clothing construction. A survey of fitting problems, pattern adjustment, and body measurements applied to individual basic patterns. The class will be briefed on the new small equipment available for home and school. Garments will be constructed by the student, incorporating the skills and techniques studied. Prerequisite: H. E. 40 (Clothing Construction) or equivalent. (*Offered Summer 1963.*)

H. E. 210. NEW DEVELOPMENTS IN FOODS.

3 credits.

Review and interpretation of the literature in the field of food and food research. A critical analysis is made of recent developments in new food products. Prerequisite: H. E. 20 and H. E. 60 or equivalent. (*Offered Summer 1964.*)

H. E. 239. SEMINAR IN TEXTILES.

3 credits.

Recent trends in textile developments affecting characteristic behavior of old and new fibers as reported in current literature. Study in selection and care for specific consumer needs. Problems in construction involving principles of new fabric use. Study of production and distribution. Field trips. Prerequisite: H. E. 39 (Textiles) or equivalent. (*Offered Summer 1965.*)

H. E. 276. THE SOCIOLOGY OF THE FAMILY.

(Also listed as S. S. 276.)

3 credits.

The American family is studied in its structural aspects. Primary emphasis is upon the middle class family by reference to the husband-wife,

parent-child, and in-law relationships. Family behavior is related to occupational structure, religious orientation, educational patterns and social stratification.

H. E. 279. SEMINAR IN VOCATIONAL HOME ECONOMICS
EDUCATION.

3 credits.

A study is made of the contribution of home economics to American education. A critical examination is made of trends and issues in curriculum development, instruction, guidance, evaluation, supervision, and research. Prerequisite: H. E. Ed. 70 (Vocational Home Economics) or equivalent.

H. E. 280. SEMINAR IN SUPERVISION OF STUDENT TEACHERS
IN VOCATIONAL HOME ECONOMICS.

3 credits.

A study of the field of supervision including such topics as the nature and function of supervision, in-service improvement of teachers, techniques of classroom visitation, teaching ratings, teachers' meetings, human relations, and the selection of training centers. Prerequisites: Bachelor's degree, teaching experience in vocational home economics.

DEPARTMENT OF MATHEMATICS

A student may elect to major or minor in mathematics in the graduate program.

For a major in mathematics a minimum of eighteen semester hours is required. This must include at least two of the three courses, Mathematics 100, Mathematics 110, and Mathematics 120. The remainder of the major program will consist of electives from the graduate offerings in mathematics, chosen in consultation with the head of the department.

For a minor, a minimum of nine semester hours of graduate courses in mathematics is required. At least two of the three courses, Mathematics 100, Mathematics 110, and Mathematics 120 must be included.

MATH. 100. FOUNDATION OF MATHEMATICS.

3 credits.

This is an introductory study of the logical structure of mathematics. It is concerned with the place of logical reasoning and the significance of logical structure in both mathematical and scientific thought. Modern postulational concepts and methods will be investigated.

MATH. 110. FUNDAMENTAL CONCEPTS OF ALGEBRA.

3 credits.

Attention is given to the fundamental concepts and postulates which form the foundations of algebra. The complex number system and the elementary theories of numbers, polynomials, and equations are developed using the concepts and terminology of modern algebra.

MATH. 120. FOUNDATIONS OF GEOMETRY.

3 credits.

A study of the fundamental concepts of the various geometries as logical systems based upon postulates and undefined elements. Attention is given to the historical evolution of our geometric concepts and to the relationship of euclidean plane geometry to other geometries.

MATH. 140. PROJECTIVE GEOMETRY.

3 credits

A study of the fundamental theorems and concepts of synthetic projective geometry. Attention is given to ideal elements, duality, projectively related forms, cross ratio, projective theory of conics.

MATH. 150. THEORY OF NUMBERS.

3 credits.

Topics in elementary number theory including properties of integers and prime numbers, divisibility of numbers, simple Diophantine equations, congruences and residues.

MATH. 160. INTRODUCTION TO THE THEORY OF STATISTICS.

3 credits.

An introductory course treating topics from the theory of probability and statistical inference. Topics included: probability and combinatorial methods.

MATH. 220. INTRODUCTION TO ANALYSIS.

3 credits.

A survey of the fundamental concepts of the Calculus, including sequences, limits, continuity, and differentiability.

MATH. 230. THE ALGEBRA OF VECTORS AND MATRICES.

3 credits.

An introduction to vector and matrix algebra in the setting of modern algebraic theory. Vectors of 2 and 3 dimensions are discussed. Both the theory and application of matrices are considered.

MATH. 280. READING AND RESEARCH.

3 credits.

Opportunity is given the individual student for supervised reading and research in areas of his special interest.

DEPARTMENT OF MUSIC

Candidates may elect either a major or a minor in music and music education for the Master's degree. Further, they may concentrate on one major interest—choral music, instrumental music, music education, or music theory, composition, and literature—or may broaden their work to include courses from each of these areas.

Music Education 210, Research and Trends in Music Education, will be required of all graduate music students. Requirements for the major will include also at least one of the courses in music literature:

Music 113. Music of the Baroque and Classical Periods

Music 114. Music of the Romantic Period

Music 115. Twentieth-Century Music

Most courses will be offered during the regular Six-Week Summer Session. Others, notably those which are given in cooperation with the Virginia Music Workshop and Camp at nearby Massanetta Springs, will be offered during the Three-Week Inter-session in June.

MUSIC 110. CHORAL MATERIALS AND TECHNIQUES.

3 credits.

A study of the problems, materials, and techniques of teaching choral music in the high school. Laboratory experiences will be provided at the Virginia Music Camp at Massanetta Springs.

MUSIC 111. INSTRUMENTAL MATERIALS AND TECHNIQUES.

3 credits.

A study of the problems, materials, and techniques of teaching instrumental music in the high school, with emphasis on orchestra. The orchestra of the Music Camp at Massanetta Springs will provide laboratory experience and opportunities for observation.

MUSIC 113. MUSIC OF THE BAROQUE AND CLASSICAL PERIODS.

3 credits.

A study of vocal, instrumental and organ music of the Baroque Period beginning with the late Renaissance composers Monteverdi, G. Gabrielli and Sweelinck and culminating in Bach and Handel; the Mannheim School; the pre-classical Viennese composers; Gluck, Haydn, Mozart, Beethoven..

MUSIC 114. MUSIC OF THE ROMANTIC PERIOD.

3 credits.

A study of the Romantic movement in music with reference to its historical background and parallel movement in literature and art. The music of Schubert, Weber, Berlioz, Mendelssohn, Liszt, Chopin, Wagner, Brahms and their contemporaries. Post-romanticism: Elgar, MacDowell, R. Strauss, Sibelius, and others.

MUSIC 115. TWENTIETH-CENTURY MUSIC.

3 credits.

A survey of the trends found in twentieth-century music. Impressionism; "New Music" from Satie to Schoenberg, Bartok, and Hindemith. The music of contemporary American composers. Undergraduate students may enroll with permission of the instructor.

MUSIC 120. MUSIC OF THE CHURCH.

3 credits.

A study of some of the most common problems of the church musician. Special emphasis will be placed on organ registration, repertory, and service playing; on choirs and choral literature; and on appropriate music for the church year. Students may work along one or more of these lines, according to their interests.

MUSIC 121. INSTRUMENTATION.

3 credits.

The arranging of music for orchestra, band, and various ensemble groups. Styles in arranging, range and characteristics of the different instruments, and instrumentation for various types of musical composition.

MUSIC 122. MODERN HARMONY AND COMPOSITION.

3 credits.

A study of the harmonic, contrapuntal and other stylistic devices of the twentieth-century composer and their application in creative writing by the student who wishes to acquire a technique in the contemporary idiom.

Composition in both small and larger forms depending upon the talent and background of the student. This course is not only for the talented composition student but also for the teacher and performer who desires an increased understanding of our contemporary music.

MUSIC 123. MODERN HARMONY AND COMPOSITION.

3 credits.

A sequel to Music 122. One course may be taken without the other and either may be elected first.

MUSIC 131, 132, 133, 134. APPLIED MUSIC.

1 credit.

Four semester hours of credit in applied music—piano, voice, organ, and an orchestral instrument—may be offered toward the Master's degree. Graduate students will be encouraged to study applied music, and work will be suited to their individual needs.

MUSIC 135. ADVANCED CONDUCTING (CHORAL AND INSTRUMENTAL).

3 credits.

Prerequisite—Music 77-78 or equivalent.

Refinement of baton technique.

Score reading. Specific problems selected from standard works. Practical experience with choral and instrumental groups.

MUSIC 136. MASTER CLASS IN PIANO.

3 credits.

Emphasis will be placed on a broadened knowledge and use of teaching materials and techniques, on repertory and on improving students' own performance. Students who are more interested in teaching may concentrate on phases of pedagogy in lieu of performance.

MUSIC 137. INSTRUMENTAL TECHNIQUES.

2 credits.

This course is designed for instrumental music teachers who need further help with one specific instrument or group of instruments. Members of the group will work together and separately, each on his special concentration.

MUSIC EDUCATION 141. PROBLEMS IN MUSIC EDUCATION.

3 credits.

This course is designed to consider some of the problems most often found in teaching of music, and will deal to a large extent with particular interests and needs of members of the group. It will include work on both elementary and secondary levels, with appropriate study of materials and procedures for teaching.

MUSIC 150. ANALYTICAL STUDIES IN MUSIC LITERATURE.

3 credits.

The study of representative works from all periods in terms of their formal and stylistic characteristics. Stylistically the analysis will include a consideration of the following: melodic and rhythmic elements, harmonic

and contrapuntal techniques, texture (in its many ramifications), orchestration (vocastration) and the interrelation of these elements in the form as a whole. Finally the study will view each work as a product of a definite aesthetic concept.

MUSIC EDUCATION 210. RESEARCH AND TRENDS IN MUSIC EDUCATION.

3 credits.

This course deals with psychological factors involved in the teaching of music, with individual measurements in music, and with more recent developments in music education. It is designed to include work which is significant to all branches of music teaching.

MUSIC EDUCATION 211. THE SUPERVISION AND ADMINISTRATION OF MUSIC.

3 credits.

The supervision of teachers of music; administrative responsibilities of music teachers and supervisors. The role of the supervisor of music in the schools.

MUSIC EDUCATION 212. PROJECTS IN MUSIC EDUCATION.

3 credits.

Students who elect this course will select, formulate, carry through and evaluate a specific project in the teaching of music in their own schools. Registration may be for Fall or Spring Term; periodic conferences and reports will be arranged.

MUSIC 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

DEPARTMENT OF PHYSICAL AND HEALTH EDUCATION

The graduate programs in physical education and health education are designed to promote competency in teaching and administration, to improve the quality and understanding of research, and to provide advanced instruction in specialized areas.

A candidate for the Master's degree may elect to major in physical education. For this purpose the student is required to take P. E. 206 and at least one of the following courses:

P. E. 110

P. E. 204

P. E. 205

Candidates may choose to minor in health or in physical education. For the minor in health education, Hth. 103 or Hth. 203 is required. For a minor in physical education, P. E. 185 or P. E. 206 is required.

Other courses in the major and minors will be selected with the assistance of the head of the department.

A. *Physical Education*

P. E. 107. INTRAMURAL AND EXTRAMURAL SPORTS.

3 credits.

History of sports in American culture; basic philosophies and resulting policies and practices in sports; the modern sports program in education and in recreation.

P. E. 110. EVALUATION AND MEASUREMENT IN PHYSICAL EDUCATION.

3 credits.

The emphasis will be upon physiological and kinesiological tests stressing those of endurance, skill and motor ability. The course will provide experience in the use of these tests.

P. E. 112. CREATIVE DANCE MATERIALS.

3 credits.

The exploration and evaluation of creative dance materials for different age and ability levels; practical experience in the use of these materials.

P. E. 185. ADMINISTRATION OF PHYSICAL EDUCATION.

3 credits.

This course deals with personnel, facilities, equipment, use of time and space, and financial matters. Both the instructional and recreational phases of the physical education program are included.

P. E. 187. ADAPTING ACTIVITIES FOR THE EXCEPTIONAL CHILD.

3 credits.

The course investigates the problems of the exceptional child with special emphasis on those of an orthopedic nature. Observations are scheduled in clinics, hospitals, and schools.

P. E. 204. ANALYSIS OF MOVEMENT.

3 credits.

A study of scientific principles basic to kinesiology and their application to complex and advanced levels of motor performance.

P. E. 205. SEMINAR AND LABORATORY IN MOVEMENT.

3 credits.

The course is conducted through observation, participation, and experimentation in laboratory situations and through directed study, discussion, and research. Problems will include several areas of movement.

P. E. 206. PROBLEMS IN PHYSICAL EDUCATION.

3 credits.

A survey of current problems in the field; exploration through literature and published research; investigation of a selected problem.

P. E. 208. ADVANCED COACHING AND OFFICIATING
TECHNIQUES.

3 credits.

A study of coaching techniques with particular regard to conditioning techniques, standards governing ethics, and healthful practice. The course includes a review of officiating techniques and rules interpretation.

P. E. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

B. *Health Education*

HTH. 103. THE HEALTH PROGRAM IN SCHOOL AND
COMMUNITY.

3 credits.

A critical study of the instructional, service, and environmental aspects of school and community programs and their relationships.

HTH. 115. RECENT DEVELOPMENTS IN HEALTH.

3 credits.

A study of the recent contributions of science and medical and public health services to the field of health education; current health problems and trends.

HTH. 203. READING AND RESEARCH.

3 credits.

Directed reading in designated areas and in areas of special interest. Investigation and research. (*Offered upon request and with approval of the instructor.*)

SCIENCE

The Division of the Natural Sciences is offering the following program in science to give those elementary teachers who are interested in science an opportunity to obtain a minor in science in the graduate program. This minor is limited to elementary teachers.

Students electing this minor will be required to take the three courses listed below. These courses will enable the elementary teacher to become acquainted with three areas of scientific progress from which practical techniques as well as theoretical foundations may be learned.

BIO. 100. VERTEBRATE ECOLOGY.

3 credits.

A course designed to acquaint students with fundamental relationships existing between animals and their environment. Emphasis will be placed on the dynamic aspect of ecology and its importance to mankind. The laboratory will consist of group discussion sessions and selected field trips throughout the Shenandoah regions.

PHYSICAL SCIENCE 100. EARTH SCIENCE.

3 credits.

A course designed to familiarize the graduate student with the basic aspects of most branches of geology. Emphasis is upon materials and structure of the earth, and how rock units are shaped into their scenic expression.

PHYSICAL SCIENCE 101. MATTER AND ENERGY.

3 credits.

This course is intended to give graduate students planning to teach in the elementary school an understanding of one of the major physical science problems facing mankind. Emphasis is placed on matter and energy as unifying concepts in the physical sciences. The course is taught jointly by staff members of the Chemistry and Physics Departments.

DEPARTMENT OF SOCIAL SCIENCE AND HISTORY

The two major programs of study in the Department of Social Science and History are a major in Social Science and a major in History.

PROGRAM NUMBER ONE: SOCIAL SCIENCE

MAJOR—18 hours required.

3 hours credit in S. S. 220, Social Science Seminar, is required.

9 credit hours concentration in one social science subject to be chosen from: Economics, Geography, Government, History or Sociology.

6 hours credit in two social science subjects other than the student's concentration, *or*

6 hours credit in a thesis.

MINOR—9 hours required.

3 hours credit in Social Science 220, Social Science Seminar. (Required)

6 hours credit in any of the courses listed in the graduate catalog under the Social Science and History Department.

PROGRAM NUMBER TWO: HISTORY

MAJOR—18 hours required.

3 credit hours in S. S. 122, Contemporary United States History. (Required)

3 credit hours in S. S. 132, Contemporary World History. (Required)

3 credit hours to be selected from one of the following:

1. S. S. 260, Economic Systems of the World
2. S. S. 240, Federal Government
3. S. S. 270, Social Change
4. S. S. 220, Social Science Seminar

9 credit hours to be selected from the electives in the field of history, or 3 credit hours in history, *and*

6 hours credit in a thesis.

MINOR—9 hours required.

3 credit hours in S. S. 122, Contemporary United States History. (Required)

3 credit hours in S. S. 132, Contemporary World History. (Required)

3 credit hours in any other history course of the student's choice.

COURSE OFFERINGS IN ECONOMICS, GEOGRAPHY, GOVERNMENT, HISTORY, AND SOCIOLOGY

A. *Economics*

1. S. S. 100. ECONOMICS SEMINAR.

3 credits.

This course is designed to highlight the American free enterprise system. Students will participate in a four-day field trip to examine how our economic system operates at the production level. Lectures and demonstrations in the field will include a day at the New York Stock Exchange and visits to major representative industrial plants.

This program is limited to thirty-five students. On account of the field trip, a special non-refundable fee of twenty-five dollars (\$25.00) must be paid *in advance* to the Head of the Department of Social Science and History. This special fee will be in addition to the regular registration fees for the course which are payable to the Business Office.

2. S. S. 200. ECONOMICS IN CONTEMPORARY SOCIETY.

3 credits.

The role of economics in national and world affairs is analyzed and special attention is given to international trade, distribution of wealth, income, taxation and public debt, recurrent major depressions and periods of prosperity, and types of economic systems.

3. S. S. 230. SEMINAR IN AMERICAN BUSINESS.

3 credits.

Comprehensive review of current books, magazines, and materials in the areas of Marketing, Banking, Taxation, Selling, Exchanges, Economic Conditions, and other areas essential to improved business understanding. (Also listed as B. E. 230.)

4. S. S. 260. ECONOMIC SYSTEMS OF THE WORLD.

3 credits.

The major types of economic systems, Socialism, Communism, Fascism and Capitalism, will be analyzed and compared with special attention given to national and world affairs and international relations. The distribution of wealth and income, public debt, and business cycles will be explained and compared.

5. S. S. 280. READING AND RESEARCH.

3 credits.

Opportunity is offered the individual student for reading and research in areas of his special interest.

B. *Geography*

1. S. S. 160. POLITICAL GEOGRAPHY.

3 credits.

A detailed study of the world's pressure areas based upon cause and effect of political tensions from a geographic frame of reference.

2. S. S. 180. CULTURAL GEOGRAPHY.

3 credits.

A study of the world's cultures as based upon differences and similarities of the geographic environment in various regions.

3. S. S. 190. THE TROPICAL WORLD.

3 credits.

This course is designed to highlight the areas of the world bordering on the Equator, including Central Africa, Southeastern Asia, Central

and Northern Latin America and the Pacific. Students will study the physical environment in relationship with the cultural and social characteristics that together make these areas part of the present world political struggle.

4. S. S. 280. READING AND RESEARCH.
3 credits.

Opportunity is offered the individual student for reading and research in areas of his special interest.

C. *Government*

1. S. S. 240. FEDERAL GOVERNMENT.
3 credits.

This course consists of four major units designed to provide a better understanding of the contemporary constitution and government of the United States: (1) the constitutional convention of 1787, (2) the original constitution, (3) the establishment of the Federal Government under President Washington, and (4) the growth of the constitution through amendment and interpretation.

2. S. S. 250. COMPARATIVE WORLD GOVERNMENTS.
3 credits.

This course is designed to acquaint the student with the governmental forms and structures of the major world powers. A comparison is made between the American Federal Government and the governments of Russia and England.

3. S. S. 280. READING AND RESEARCH.
3 credits.

Opportunity is offered the individual student for reading and research in areas of his special interest.

D. *History*

1. S. S. 122. CONTEMPORARY UNITED STATES HISTORY.
3 credits.

An analysis is made of the political, economic and social history of the United States from the end of World War I to the present and is intended to provide a background to understanding and teaching current events.

2. S. S. 125. PROBLEMS IN UNITED STATES HISTORY,
1800-1850.

3 credits.

This course offers an opportunity for a thorough study of selected topics from this period of United States History. Research papers, lectures and class discussions will deal with the subjects chosen.

3. S. S. 132. CONTEMPORARY WORLD HISTORY.

3 credits.

A study is made of the period from the end of World War I to the present. This provides a background for understanding and teaching current events.

4. S. S. 224. COLONIAL AMERICA.

3 credits.

This course deals with the period through the Revolution. Research papers, lectures, and class discussions will offer an opportunity for a thorough study of selected topics.

5. S. S. 235. PROBLEMS IN HISTORY OF CIVILIZATION.

3 credits.

An opportunity is provided for the study of selected subjects and periods from earliest times to the present.

6. S. S. 280. READING AND RESEARCH.

3 credits.

Opportunity is offered the individual student for reading and research in areas of his special interest.

E. *Social Science*

1. S. S. 220. SOCIAL SCIENCE SEMINAR.

3 credits.

This course is designed to acquaint the student with the classical literature and research of political, economic, and social science, and to increase understanding of the major recurring issues as well as the important ideas of social science.

2. S. S. 300. THESIS.

6 credits.

A thesis in the major field of interest and completed to the satisfaction of the Student's Advisory Committee and the Graduate Council may be submitted in partial fulfillment for the requirements for the Master's degree. Students who elect to write a thesis are required to complete twenty-four semester hours in course work. The Student's Advisory Committee must recommend the thesis subject and outline to the Graduate Council for approval at least three months prior to the time the degree is expected to be awarded. The thesis must be completed one month before the time of graduation to assure the Advisory Committee of its acceptability.

F. *Sociology*

1. S. S. 178. COMMUNITY ANALYSIS.

3 credits.

Representative community studies are read as an aid in the development of theories of community organization. A detailed analysis is made of the relationship between social stratification and occupation, family, religion, political behavior and education.

2. S. S. 270. SOCIAL CHANGE.

3 credits.

An analysis is made of the dynamics of social behavior by reference to changes in value orientation, technology, population characteristics, power structure, system of stratification, and communication techniques.

3. S. S. 276. THE SOCIOLOGY OF THE FAMILY.

(Also listed as H. E. 276.)

3 credits.

The family is studied in its structural aspects. Primary emphasis is upon the husband-wife, parent-child, and in-law relationships. Family behavior is related to occupational structure, religious orientation, educational patterns, and social stratification.

4. S. S. 280. READING AND RESEARCH.

3 credits.

Opportunity is offered the individual student for reading and research in areas of his special interest in Sociology.