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MADISON COLLEGE

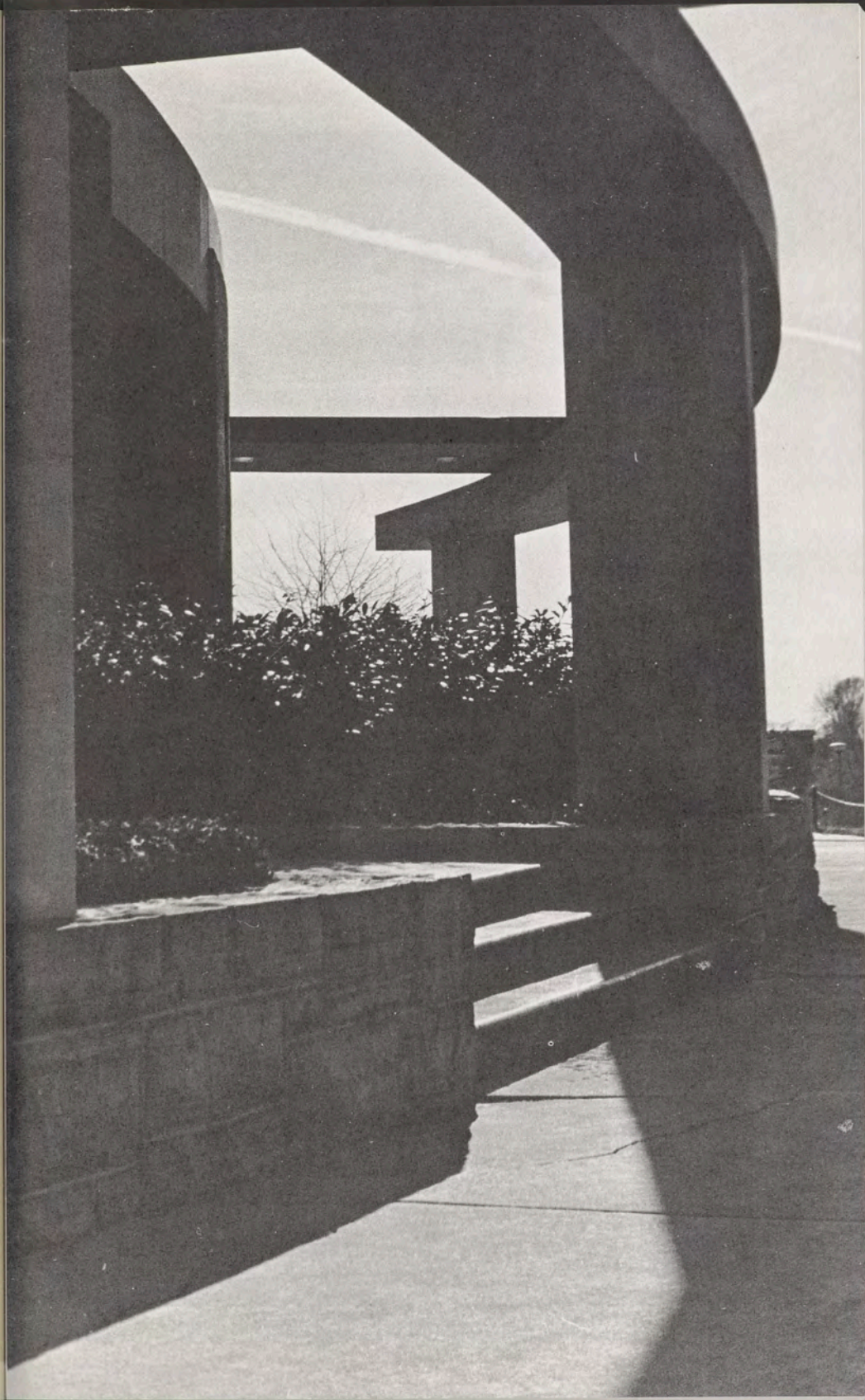
GRADUATE CATALOG 1972



For further information concerning graduate study at Madison College write:

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Graduate Studies
Madison College
Harrisonburg, Va. 22801

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MADISON COLLEGE GRADUATE PROGRAM

ACCREDITED BY: Southern Association of Colleges and Schools,
National Council for Accreditation of Teacher Education for
Preparation of Elementary Teachers and Secondary Teachers
with the Master's Degree as the Highest Degree Offered, Vir-
ginia 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, Na-
tional Commission on Accrediting, American Association of
State Colleges and Universities.

CORPORATE MEMBER OF: American Association of University
Women.

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Graduate Academic

1972

FEBRUARY

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February 1—6:00-8:00 p.m. Second semester registration and course adjustments for full-time and part-time graduate students. Students who make course adjustments subsequent to this time will be subject to a fee of \$5.00.

February 2—Second semester classes begin at 8:00 a.m.

February 5—Graduate School Foreign Language Test.

MARCH

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March 10—Celebration of Founders Day.

March 15—Deadline for filing with Educational Testing Service for Graduate School Foreign Language Test on April 15.

March 24—Deadline for filing with Educational Testing Service for Graduate Record Examination on April 22.

March 29—Spring Vacation begins: 11:50 a.m.

APRIL

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April 5—Spring Vacation ends and classes begin: 8:00 a.m.

April 15—Graduate School Foreign Language Test.

April 21—Deadline for filing with graduate office to take Comprehensive Examination on May 6.

April 22—Graduate Record Examination.

MAY

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May 3—Deadline for filing Application for June Graduation with the Registrar's Office.

May 6—Comprehensive Examination.

May 19—Deadline for filing with Educational Testing Service for Graduate Record Examination on June 17.

May 22—Deadline for final filing of thesis with the graduate office if degree is to be received June 3.

May 22—Classes end second semester.

May 23—Reading Day.

May 24—8:00 a.m.—June 2, 12:00 Noon—Final examination period.

JUNE

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June 3—Commencement.

June 11—Dormitories open 12:30 Noon for Intersession students.

June 12—Three-Week Intersession registration. Classes begin.

June 17—Graduate Record Examination.

June 18—Dormitories open for Eight-Week Session students.

June 19—Summer Session registration. Eight and First Four-Week Sessions.

June 20—Summer Session classes begin at 7:15 a.m.

June 20—First Four-Week Session classes begin at 7:15 a.m.

June 22—Deadline for filing with Educational Testing Service for Graduate School Foreign Language Test on July 22.

June 30—Three-Week Intersession ends.

Calendar

- July 2—Dormitories open for Six-Week Session students.
 July 3—Six-Week Session registration. Classes begin.
 July 4—Independence Day. (Classes meet).
 July 11—Deadline for Filing Application for August Graduation with the Registrar's Office.
 July 14—Eight-Week classes meet; final examination for First Four-Week Courses: 1:00 p.m.-3:30 p.m.
 July 17—Registration for new Students in Second Four-Weeks: 7:15 a.m.-12:00 Noon. Classes meet on regular schedule.
 July 21—Deadline for final filing of thesis with the graduate office if degree is to be received August 11.
 July 22—Graduate School Foreign Language Test.
 July 29—Deadline for all Comprehensive Examinations to be given this summer.

1972

JULY

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August 9-11—Examinations.

August 11—Friday, 8:00 p.m. Final exercises, conferring of degrees.

AUGUST

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September 5—6:00-8:00 p.m. Registration of full-time and part-time graduate students.

September 6—Students who do not complete registration on this date must pay a \$5.00 late registration fee.

September 7—Beginning of classes: 8:00 a.m.

September 8—Deadline for filing with Educational Testing Service for Graduate School Foreign Language Test on October 7.

September 14—Last day on which class changes in schedules of students may be made without payment of a \$5.00 fee.

September 23—Institute on Education.

September 29—Deadline for filing with Educational Testing Service for Graduate Record Examination on October 28.

SEPTEMBER

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October 7—Graduate School Foreign Language Test.

October 12—Last day to withdraw from a semester course with a "W" grade.

October 28—Graduate Record Examination.

OCTOBER

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Calendar—Continued

1972

NOVEMBER

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November 10—Deadline for filing with Educational Testing Service for Graduate Record Examination on December 9.

November 16—Last day to withdraw from a semester course with a "WP" grade.

November 22—Thanksgiving vacation begins: 5:00 p.m.

November 27—Thanksgiving vacation ends and classes begin: 8:00 a.m.

DECEMBER

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December 9—Graduate Record Examination.

December 15—Classes end first semester.

December 16—Reading Day.

December 16—Deadline for all Comprehensive Examinations to be given this semester.

December 18-22—Examination period.

December 22—Deadline for filing with Educational Testing Service for Graduate Record Examination on January 20.

December 22—First semester ends. Mid-year recess begins.

1973

JANUARY

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January 5—Deadline for filing with Educational Testing Service for Graduate School Foreign Language Test on February 5.

January 15—6:00-8:00 p.m. Second semester registration and course adjustments for full-time and part-time graduate students. Students who make course adjustments subsequent to this time will be subject to a fee of \$5.00.

January 17—Second semester classes begin at 8:00 a.m.

January 20—Graduate Record Examination.

January 24—Last day on which class changes and schedules of students may be made without payment of a \$5.00 fee.

FEBRUARY

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February 5—Graduate School Foreign Language Test.

February 21—Last day to withdraw from a semester course with a "W" grade.

MARCH

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March 9—Mid-semester recess begins: 5:00 p.m.

March 16—Deadline for filing with Educational Testing Service for Graduate School Foreign Language Test on April 15.

March 19—Mid-semester recess ends and classes resume: 8:00 a.m.

March 23—Celebration of Founders Day.

March 30—Deadline for filing with Educational Testing Service for Graduate Record Examination on April 28.

April 7—Last day to withdraw from a semester course with a "WP" grade.

April 12—Deadline for filing Application for May Graduation with the Registrar's Office.

April 15—Graduate School Foreign Language Test.

April 28—Deadline for all Comprehensive Examinations to be given this semester.

April 28—Graduate Record Examination.

April 30—Deadline for final filing of thesis with the graduate office if degree is to be received May 12.

1973

APRIL

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May 1—Classes end second semester.

May 2—Reading Day.

May 3-8—Final Examination period.

May 12—Commencement.

May 18—Deadline for filing with Educational Testing Service for Graduate Record Examination on June 16.

May 28—Registration and start of classes for first 5½-week Summer Session.

MAY

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JUNE

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June 16—Graduate Record Examination.

June 18—Registration for eight-week Summer Session.

June 19—Classes start for eight-week session.

June 22—Deadline for filing with Educational Testing Service for Graduate School Foreign Language Test on July 21.



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- JAMES E. KIDD, JR., *Associate Professor of Special Education*. A.B., Olivet Nazarene College; M.A., Marshall University; Ed. D., University of Virginia.
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- JAMES W. KUHNS, *Associate Professor of Psychology*. A.B., Goshen College (Indiana); M.Ed., Ed.D., Temple University.
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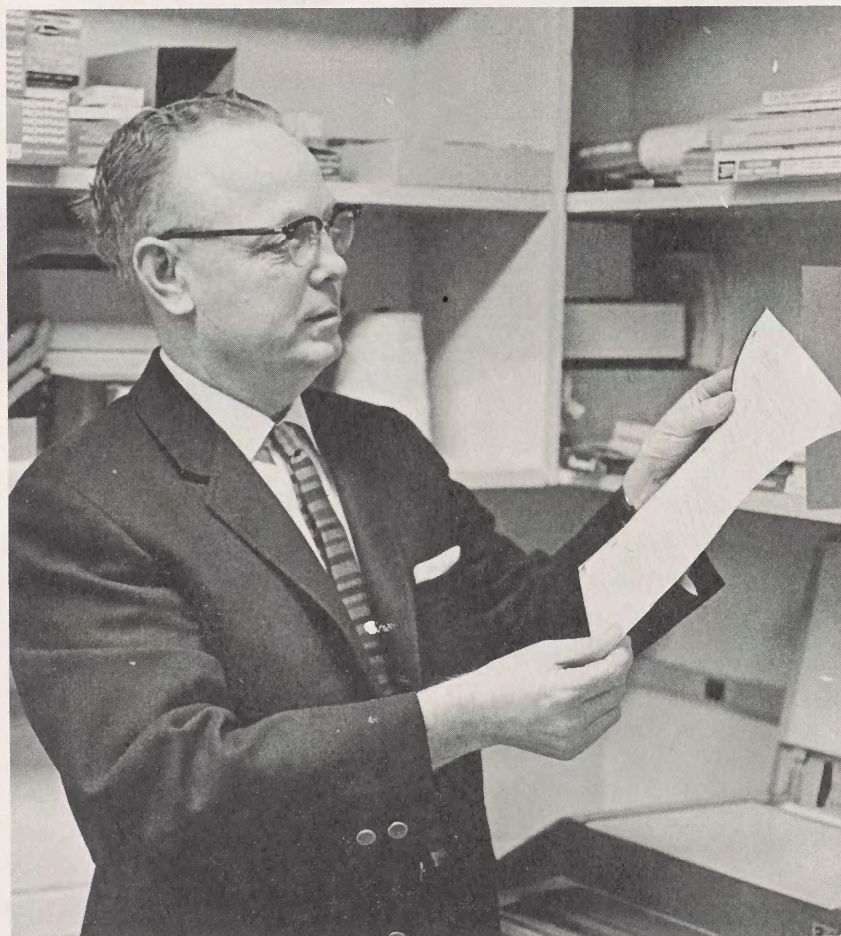
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THE
GRADUATE PROGRAM
OF
MADISON COLLEGE

HISTORY

The Graduate School at Madison College was formally established in 1954, when the College was authorized by the State Board of Education to offer curricula leading to the degrees of *Master of Arts in Education* and *Master of Science in Education*. The graduate program at Madison was approved by the Southern Association of Schools and Colleges in the same year. On October 31, 1960, the State Board of Education authorized the College to offer programs leading to the *Master of Science* degree with majors in Biology and in Mathematics. The *Master of Arts* degree in other fields and the *Master of Business Administration* degree were authorized by subsequent actions of the State Council of Higher Education.

PURPOSE

The graduate program was inaugurated at Madison College to provide teachers with an opportunity to improve their competency through greater subject-matter mastery in their respective areas of teaching and by increased professional skills through further study in professional education. Fulfilling this purpose continues to be a major function of the graduate program.

In addition, the graduate program at Madison College now offers a systematic program of study in several academic and other professional fields designed to afford students who are not teachers an opportunity to pursue advanced study and research.

ADMINISTRATION

The Graduate Council of the College has the responsibility of formulating all policies and legislation affecting graduate programs 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 Board of Visitors. The Provost is chairman and the primary executive officer of the Graduate Council.

DEGREE REQUIREMENTS

Programs of study leading to one of five distinct graduate degrees are available to students admitted to the Graduate Program at Madison College. These are *Master of Arts in Education*, *Master of Science in Education*, *Master of Arts* (with a major in Art, English or History), *Master of Science* (with a major in Biology or in Mathematics), and *Master of Business Administration*.

All programs of study leading to advanced degrees are available to students enrolled in the regular academic year sessions, including the evening programs and in the summer session.

Graduate degrees are conferred upon students who satisfactorily complete stated requirements. An individual program of study is planned by each student with his adviser in conformance with certain specific requirements for the degree. Such programs require the approval of the major Department Head.

Although the requirements for most graduate degrees at Madison College include thirty (30) semester hours credit, the student should be aware that this is a *minimum* requirement and should in no way be regarded as a limiting factor in the formulation of a program of graduate study. It should be clearly understood that the graduate degree is not given as a certificate of residence or for duties performed, but is awarded only to students who give evidence of sound scholarship and proficiency in research in their fields of specialization.

Most programs leading to the degrees of *Master of Arts in Education* and *Master of Science in Education* require work in both a subject-matter field and in education. However, the programs of Early Childhood, Guidance and Counseling, Reading Specialists, School Administration and School Psychology do not require a minor area of study. In those programs requiring a major and a minor, a minimum of thirty (30) semester hours is required. Either the major or the minor must be taken in the field of education. The student must satisfactorily complete (A) a major in a subject-matter field consisting of a minimum of twenty-one (21) semester hours of graduate credit and a minor in education consisting of nine (9) semester hours, or (B) a major in education consisting of eighteen (18) semester hours and a minor in a subject-matter field consisting of a minimum of twelve (12) semester hours of graduate credit. Programs of study leading to the *Master of Arts in Education* with a major in a subject-matter field are available in the Departments of Art, English, History, Music, and Social Science. A minor is available in each of these areas and in the areas of Economics, Political Science, Psychology, Sociology, and Spanish for a student majoring in Education. Programs of study leading to the *Master of Science in Education* with a major in a subject-matter field are available in the Departments of Biology, Business Education, Mathematics, Physical and Health Education, and Physics. A minor is available in each of the above-mentioned departments and in the areas of Chemistry, Economics, General Science, Home Economics, Political Science, Sociology and Speech for those students majoring in Education.

Programs leading to the degree of *Master of Science* are available in the Departments of Biology and Mathematics. The candidate for the *Master of Science* degree must complete a minimum of thirty (30) semester hours of graduate credit in the respective discipline. No minor is required. For the *Master of Science* degree with a major in Biology a thesis in the major field of interest is a specific requirement. In Mathematics the

writing of a thesis is an option which may be elected by the candidate.

A program leading to the degree of *Master of Arts* is available in the Departments of Art, English, and History. The candidate for the *Master of Arts* degree must complete a minimum of thirty (30) semester hours of graduate credit in the respective discipline. No minor is required.

For the program leading to the *Master of Business Administration* degree, the candidate must complete a minimum of thirty-three (33) semester hours of graduate credit.

ADMISSION TO THE GRADUATE PROGRAM

Applications for admission to the Graduate Program of Madison College may be obtained from the Office of the Assistant Provost for Graduate Studies. Application forms should be completed and returned at least thirty (30) days before enrollment is desired.

Applications for admissions will be considered without regard to race, color, or national origin of individuals.

Each applicant must have an official transcript submitted of all undergraduate and graduate work previously taken. A completed medical form is required of all full-time applicants. A statement of good health signed by a physician must be submitted to the Office of Graduate Studies by part-time students. A ten dollar (\$10) application fee, payable once only and non-refundable, is required of all applicants.

Action will not be taken on a student's application until all credentials have been received.

It is strongly recommended that the applicant submit as part of the application for admission to the Graduate Program an official record of scores on the General Aptitude Section of the Graduate Record Examination. If not submitted at this time,

the student must submit an acceptable score prior to the completion of the first semester in residence. The Advanced Test (in the area of specialization) may be required upon recommendation of the Department Head or major adviser.

All foreign student applicants must submit satisfactory scores of the Test of English as a Foreign Language, as part of their application for admission.

Applications for admission to the Graduate Program will be reviewed by the Heads of the Departments in which the applicant wishes to major and minor. The applicant must be accepted by the departments in which he desires to study and approved by the Assistant Provost for Graduate Studies. The student will be notified of the disposition of his application by the Office of Graduate Studies.

Applicants may be admitted to the Graduate Program of Madison College or to graduate study at Madison College under three classifications: Unconditional Admission, Conditional Admission, or Non-Degree Admission.

Unconditional Admission is admission to the Graduate Program without reservation and indicates a sound academic background in preparation for a specific program of graduate study.

Conditional Admission is admission to the Graduate Program with reservations as indicated in the letter of acceptance. Such reservations are usually academic deficiencies in undergraduate preparation which must be removed by the applicant as supplementary studies to the regular prescribed graduate program.

Non-Degree Admission is admission to Madison College for graduate study but does not constitute admission to the Graduate Program. This classification is for those students who have no intention of qualifying, or who for other reasons are not in a position to qualify now, for an advanced degree here. If a non-degree graduate student should, at a later date, wish

to change his admission status, he may so petition the Assistant Provost. Such petitions will be processed as applications for regular admission. Approval for graduate credit of courses taken while a student is enrolled in a non-degree status will be determined by the Assistant Provost upon recommendation of the Department Head concerned.

This classification of admission pertains as well to those who hold at least a bachelor's degree and wish to pursue further undergraduate study. In addition, non-degree status is accorded to those students who have already been admitted to the graduate program of another institution and desire only to earn graduate credits for transfer to that institution. Admission for such persons requires written approval from the applicant's home institution and special approval from the Assistant Provost.

GENERAL REGULATIONS AND PROCEDURES

STUDENT RESPONSIBILITY

All graduate students are expected to assume full responsibility for knowledge of all regulations and procedures pertinent to the Graduate Program of Madison College as set forth in this publication. Graduate students are expected to abide by the Honor Code of Madison College. Violations of the Honor Code necessitating suspension or dismissal are subject to review by the Graduate Council.

If at any time, the graduate student fails to make satisfactory progress toward the degree, he may be denied permission to continue his graduate program. Such a decision may be reached by the student's adviser or by the Department Head concerned and recommended to the Assistant Provost for Graduate Studies for action.

Any exception to the published rules and regulations may be requested by petition to the Graduate Council. Such petitions must be initiated by the graduate student with the written approval of the student's adviser and/or the Department Head

concerned, and must mention the regulation and justify completely the exception being requested.

STUDENT ADVISERS

The Head of the Department in which the student is majoring or someone designated by him will serve as the major adviser. After admission to the graduate program, the student pursuing a degree program will meet with his assigned adviser to plan his further studies. Additional committee members may be appointed as needed.

Students not working for a degree will meet with an assigned adviser.

The student's advisers are responsible for the guidance and planning of the student's program of study, for any subsequent changes in the program of study, for the conduct of the final examination, and for all other phases of the specific requirements for the graduate degree.

PROGRAM OF STUDY

Prior to the end of the first semester of formal enrollment in the Graduate Program of Madison College, the student in a degree program will meet with his major adviser to plan his program of study.

ADMISSION TO CANDIDACY

A student may be admitted to candidacy upon the recommendation of the major adviser after (1) the completion of twelve (12) semester hours of acceptable work (distributed in both the major and minor fields, if the program requires a minor), (2) the submission of a satisfactory score on the Graduate Record Examination, and (3) the forwarding of a properly approved Program of Study form (and thesis outline, if a thesis is to be done). A request for Admission to Candidacy must be made by the student not later than the end of the second week

of all classes in the academic term in which he plans to be graduated.

COURSE LEVEL REQUIREMENTS

At least one-half of the credits contained in the student's program leading to an advanced degree at Madison College will be in courses designated as exclusively for graduate students (*i.e.*, courses numbered 600 or above). Where the program has a minor area, at least three (3) of these 600-level credits must be in the minor. Graduate credit will not be granted for work done in any course in which undergraduate students are admitted unless the student is enrolled in that course as a graduate student.

TEACHING CERTIFICATES

If candidates in programs leading to the *Master of Arts in Education* or *Master of Science in Education* do not hold the Collegiate Professional Certificate, the requirements for such a certificate must be met before the degree is conferred unless this requirement is waived by the Provost, upon the recommendation of the major adviser and the Head of the Department of Education.

RESEARCH AND THESIS

A thesis written as the result of the successful completion of a research project is required of all candidates for the *Master of Science* degree with a major in Biology. In all other cases a research project and the writing of a thesis is an option which may be elected by the student.

Six (6) semester hours of graduate credit in the major field will be allowed for the research and thesis. The thesis will consist of a written interpretation of facts and opinions gained through critical reading and independent research, and will include an adequate analysis of the assembled data.

For those students who submit a thesis in partial fulfillment of the requirement for a graduate degree at Madison College, the following steps will be completed:

1. With the guidance of the professor under whom the research will be conducted, the student will choose a subject area and prepare a Thesis Outline.
2. Initial approval of the Thesis Outline is to be made by the department involved as early as possible in the research program. This will be evidenced by written approvals on the student's Program of Study by his Thesis Supervisor and the Department Head, also thereby indicating that the Thesis Supervisor serves as Chairman of the Thesis Committee, which shall also include at least two other persons in the department. An additional person outside the major department may be recommended to be added to the Committee.
3. *Form and Style in Thesis Writing* by William G. Campbell is to be used as a guide in thesis writing, unless the major department has specified another style manual. The student is to consult his department also as to the other Graduate Program regulations for thesis preparation.
4. Three unbound copies of the written thesis, approved by the Thesis Committee, will be filed with the Graduate Office not later than fifteen (15) days before the expected date of graduation. An abstract of the thesis consisting of not more than six hundred words is required to be filed with the thesis.

THE COMPREHENSIVE EXAMINATION

A comprehensive written and/or oral examination, as decided by the student's major department in consultation with the student, is required of all graduate students in partial fulfillment of the requirements for the graduate degree. The deadline dates,

by which all comprehensive examinations are to be given for each academic term, are indicated in the Graduate Academic Calendar at the front of this Catalog. A candidate is eligible to take the comprehensive examination when he has: (1) been admitted to candidacy; and (2) either completed the required course work or is currently registered in work which, when successfully completed, will fulfill the degree requirements. A comprehensive examination involving a major-minor program cannot be taken until at least six semester credit hours of the minor program have been completed; about one-third of the examination will be devoted to the minor field.

The purpose of the comprehensive examination is to clarify and to appraise the extent of the student's knowledge in the field(s) of his program as a whole. Therefore, it should incorporate the following features: (1) be of appropriate depth, not merely perfunctory; (2) be of a broad nature, not just a re-testing of the student's course work; and (3) if professionally pertinent, examine the student relative to the application of his degree work to his career activities.

For written comprehensive examinations, departments involved in graduate programs will work out arrangements by which questions are developed, distributed, administered and graded by them for a major and/or major-minor program.

If an oral examination is to be given, the major adviser will arrange for a suitable date and location for the examination. A minimum of two members of the Graduate Faculty in addition to the major adviser shall be recommended by him to his Department Head and the Assistant Provost for the purpose of conducting the examination. The oral comprehensive examination will be open to all members of the Graduate Faculty.

TIME LIMIT

A graduate student must complete all requirements for the degree within six (6) years from the time he begins his gradu-

ate study. A student may, however, submit a petition to receive an extension of time because of extenuating circumstances to the Provost (for review by the appropriate Graduate Faculty members).

RESIDENCE REQUIREMENTS

As a minimum, the candidate in a degree program must spend one semester enrolled in full-time study, taking at least nine (9) semester hours of graduate credit. This requirement may be satisfied also by enrolling in two summer sessions with a minimum load of six (6) semester hours of graduate credit each summer.

APPLICATION FOR GRADUATION

When a student expects to graduate, he must file a written application with the Registrar at least thirty (30) days prior to the date of graduation.

CREDIT BY TRANSFER

Course credits not exceeding six (6) semester hours obtained from an accredited college or university may be applied to the major requirements for a graduate degree at Madison College. Such transfer credits may be considered for inclusion in a student's program of study upon petition to the Assistant Provost. Transfer credits may not be used to satisfy minor requirements.

No transfer credit will be allowed for courses taken at the graduate level if such credits have been previously used toward another degree.

Students already enrolled in the Graduate Program at Madison College may take courses at other institutions of higher learning for graduate credit at Madison College only if prior approval is obtained from the major adviser and the Assistant Provost.

No credit toward the graduate degree will be allowed for courses taken by correspondence study.

Extension courses are offered usually to part-time students not in residence on the Madison College campus. Credit for such courses may be allowed toward the graduate degree provided the extension course is taught by a member of the graduate faculty of the institution concerned, the extension course has the prior approval of the student's adviser and the Assistant Provost, and the credits so obtained do not reduce the minimum residence requirements.

GRADING SYSTEM

The following grades are given in graduate courses solely on the basis of scholarly achievement: A = Excellent; B+ = Good; B = Satisfactory; C = Passing; I = Incomplete; W = Withdrawn; F = Failure. Graduate students must receive a grade of "B" or higher in courses to receive graduate credit applicable to their degree program.

A student who has been admitted to the Graduate Program at Madison College is automatically placed on probation if he receives a grade of "C" in any two courses. Probation is a warning that achievement is not satisfactory. A student will be dropped from a degree program if he receives an "F" on any graduate course or if he receives the grade of "C" on three graduate courses.

The grade of "I" (Incomplete) may be given in a course when, because of extenuating circumstances, the requirements of the course have not been completed. The incomplete grade in a lecture course must be removed during the following semester. On the basis of extenuating circumstances a student may petition the Assistant Provost to withdraw from a course. The Assistant Provost in conference with the course instructor will act on the petition.

No grades will be given for thesis research until the research has been completed and the thesis written. The thesis grade is to be than recorded as either Satisfactory or Unsatisfactory. For the purpose of registration and payment of fees, each thesis research will be assigned equivalent credit hours.

A student who has been dropped from the Graduate Program may, if he wishes, continue to take graduate courses as a Non-Degree graduate student.

EMPLOYMENT AND ACADEMIC LOADS

A full-time graduate student in a regular semester is one who is carrying nine (9) or more semester hours of graduate credit or serving as a full-time graduate assistant. In a summer session full-time study is defined as a minimum load of six (6) semester hours of graduate credit. (For purposes of full-time benefits as a veteran, the Veterans Administration requires a minimum of twelve (12) credit hours during a semester.)

It is recognized that many graduate students depend upon part-time or full-time employment to meet certain expenses. Such students should realize that their academic loads must be reduced to meet the demands of their work loads. Therefore, general maximum limits on graduate academic loads have been prescribed for employed students. A student who is working full-time may not take more than four (4) semester hours of academic credit during any semester; a student who is working half-time may not take more than nine (9) semester hours of academic credit during any semester.

FOREIGN LANGUAGE

A reading knowledge of a foreign language is required in those departments which so specify.

DEPARTMENTAL REQUIREMENTS

The graduate degree requirements set forth in this publication set the minimum standards acceptable by the Graduate

Council of Madison College. Each department may have additional regulations approved by the Graduate Council, which their students are expected to satisfy.

ATTENDANCE AT COMMENCEMENT

All students who expect to receive graduate degrees from Madison College are required to attend commencement exercises. Request for permission to receive a degree *in absentia* must be made in writing to the Assistant Provost at least sixty (60) days prior to graduation in May and thirty (30) days prior to graduation in August.

SUMMARY OF PROCEDURES FOR MASTER'S PROGRAMS

<u>PROCEDURE</u>	<u>RESPONSIBILITY OF</u>	<u>FINAL DATE</u>
Filing of application for admission	Student	One month prior to registration
Registration	Student Adviser(s)	See calendar in this catalog
Graduate Record Examination Results	Student	With application, otherwise during first semester
Approved Program of Study	Student Adviser(s)	Prior to admission to candidacy
Admission to Candidacy	Student Adviser(s)	Second week of classes in graduating term
Application for Graduation	Student	Thirty days prior to Commencement
Comprehensive Examination	Student Adviser(s)	See calendar in this catalog
Filing of approved copies of any thesis	Student	Fifteen days prior to Commencement

FEES AND EXPENSES

The following pages list the various fees and expenses charged to students enrolled in the Graduate Program of Madison College. The College reserves the right to adjust

these fees and charges if deemed advisable by the Board of Visitors because of rising costs or other conditions. All fees and expenses will be due and payable, in full, upon entrance.

General Fees	\$ 25.00 per credit hour
Tuition Fee (additional fee required of Non-Virginia students only)	14.00 per credit hour
Comprehensive Fee	23.50 per semester (Required of full-time students)
Room, Board and Laundry	470.00 per semester
Construction Fee— All Full-Time Students	39.50 per semester
Student Health Service Fee— All students	25.00 per semester

The foregoing schedule of fees does not cover cost of books and supplies.

Course Load: A full-time graduate student in a regular semester is one who is carrying nine (9) or more semester hours of graduate credit or serving as a full-time graduate assistant.

Thesis Fee: Graduate students will be charged for Thesis (course number 700) at the rate of \$25.00 per credit hour plus out-of-state tuition if applicable. A continuance fee of \$40.00 per semester is required for Thesis work beyond six regular semester hours.

Auditing: A person who registers as an auditor will pay the same General Fee as one who registers for credit.

Diploma Fee: A fee of \$7.50 will be charged for a Master's Diploma.

Comprehensive Fee: A charge of \$23.50 per semester is made for all full-time students in order to finance the various

student organizations, publications, and the Entertainment Series. From the collections of this fee, each student is also furnished, without extra charge, a copy of the College annual, *Bluestone*, and a subscription to the College newspaper, *The Breeze*.

Room, Board and Laundry: If dormitory facilities are available, graduate students may elect to live on campus. Charges are the same as for undergraduate students.

Construction Fee: In accordance with State policy, the College must charge a fee for several college buildings financed, in whole or in part, by revenue bond issues to provide for sinking fund requirements.

Parking Fee: A registration and parking fee will be paid by each student who operates a vehicle on campus. The purpose of this fee is to defray the expense of registering vehicles and administering parking facilities.

Student Health Service Fee: Each full-time student is required to pay the infirmary fee for use of infirmary facilities.

Music Fees: The fee per semester for part-time students taking private instruction in music will be \$40.00 for one lesson per week and \$80.00 for two lessons per week.

A practice fee will also be charged if use is made of the practice facilities on campus.

Fee for Late Registration: Students are subject to a fee of \$5.00 if they do not complete registration at the designated time. The Assistant Provost may allow exceptions due to extenuating circumstances.

Students Debts: Re-enactment by the Madison College Board of Visitors of a former regulation first established by the State Board of Education requires that (1) no credit for Col-

lege work may be given to any student for a diploma, or a teacher's certificate, or for transfer purposes, until all debts to the College, other than student loans, have been paid; (2) students will not be eligible to take examinations unless accounts are paid in full for the current semester or a satisfactory plan to pay the balance has been arranged with the Business Manager; and (3) upon recommendation of the Business Manager and with the approval of the Provost, students who are deficient in their accounts may be restricted from attending classes until satisfactory arrangements have been made for payment of their past due obligations to the College.

Students Refunds: When withdrawing from the college for a semester, it is necessary to submit a written statement concerning the course(s) affected and the reason for withdrawing. Refunds will be figured from the effective date of withdrawal, which is not necessarily the date of leaving campus. A student is considered to have formally withdrawn from Madison College when the withdrawal has been approved by the Dean of Student Services.

Full-time students who formally withdraw within five days of the beginning of classes and part-time students who formally withdraw before the second meeting of their classes will be charged the Minimum Registration Fee of \$15.00. Full-time students withdrawing after five calendar days and part-time students withdrawing after the second meeting of the class, but before the middle of the semester, will be charged one-half the general fee and all other fees in full. After the middle of the semester no adjustment in fees will be made for withdrawal from college.

Students who withdraw due to illness certified by a physician, or for unavoidable emergency, or extenuating circumstances approved by the President of the college, will be charged a pro rata share of all fees.

FINANCIAL ASSISTANCE

SUMMER SCHOOL SCHOLARSHIPS

A number of graduate scholarships will be made available for the Summer of 1972 to eligible Virginia teachers under a program administered by the State Board of Education and with funds provided by the 1966 Session of the General Assembly of Virginia.

The candidate for Graduate Scholarship Assistance must (1) be a resident of Virginia; (2) be under contract with a Virginia school board for the ensuing session* and expected to teach the subject, subject area or a grade to be studied; (3) hold a Virginia teacher's certificate in force and endorsed in the subject, subject area, or grade to be taught; and (4) be enrolled in an accredited State-supported or private non-sectarian Virginia institution of higher learning in a summer session for not less than three (3) semester hours of graduate or advanced undergraduate work.

Application forms may be obtained in March from the Office of the Division of Superintendent of Schools. Application forms should be submitted to the State Department of Education not later than April 28, 1972. For further information on the Graduate Scholarship Assistance program, the teacher should consult his Division Superintendent of Schools.

Approved candidates will be reimbursed at the rate of \$20.00 per semester hour of credit: Minimum—3 semester hours, \$60.00; maximum—9 semester hours, \$180.00. In no instance will the amount reimbursed exceed the actual college costs.

GRADUATE ASSISTANTSHIPS AND GRANTS

A limited number of Graduate Assistantships of \$3,000 annually are available in several of those departments offering major programs of graduate study. Appropriate application

*or upon recommendation of the division superintendent, candidates whom he intends to employ as kindergarten teachers are eligible.

forms may be obtained from the Office of Graduate Studies. Assistantship recipients are responsible for their tuition, fees, room and board expenses. Applicants should have over-all undergraduate records approximating "B" or higher. Graduate Assistants undertake various departmental assignments requiring up to fifteen (15) hours a week and generally carry a course load of nine (9) semester hours of study.

A limited number of Graduate Grants of various amounts are awarded by the College to students with outstanding credentials.

RESIDENCE HALL ASSISTANTSHIPS

In connection with the Office of Graduate Studies, the Office of Student Affairs offers graduate appointments to the residence hall staff. These appointments valued at \$765 - \$1080, are made to full-time graduate students who have demonstrated competence in working with people, have a sound scholastic background and have experience in dormitory living. Preferably, applicants should be single, and over 21 years of age. Primarily, however, the College is seeking individuals who possess personal qualities and characteristics which make satisfactory relationships with students possible.

The Student Affairs Office also awards a limited number of Citizenship Scholarships to full-time graduate students. This award is to recognize significant contributions to the operation and governance of the College by these students who exhibit responsible citizenship in the College community.

Recipients of one of the above may also be eligible for Departmental Graduate Assistantships.

RESEARCH ASSISTANTSHIPS

Departmental Research Assistantships may be available depending upon the qualifications of the student and the availability of funds. Stipends will vary according to the amount of

time student is engaged in a specific research project. Information concerning research assistantships can be obtained from the Head of the Department in which the student expects to do his major work.

STATE EDUCATION ASSISTANCE AUTHORITY— GUARANTEED LOANS

The State Education Assistance Authority is a State agency, organized under an Act of the General Assembly of Virginia in 1960. Its purpose is to help young men and women of Virginia who need to borrow funds in order to obtain a higher education.

The Authority, through participation agreements with Lending Institutions of the State, enables these institutions to make *long term* personal loans to students to help pay their college expenses.

ELIGIBILITY

Any person who (1) is a resident of Virginia, and (2) is accepted for enrollment or is a full-time student in good standing at an institution of higher learning in Virginia. There are no restrictions as to courses or classes. Graduates, and students taking professional courses are all eligible. Part-time students are not eligible.

APPLICATION PROCEDURE

Any eligible student who wishes to apply for an Authority-insured loan may do so by making application at a participating Lending Institution. The Authority does not make loans. It insures to the extent of 90% loans made by participating Lending Institutions from their own funds. A list of all participating Lending Institutions in Virginia will be supplied by the Authority on request, but it is suggested that the applicant contact a Lending Institution in his home area. All loan applications from any one student must be submitted to the same

Lending Institution. The Lending Institution will furnish the applicant the necessary forms.

RECIPIENT

The loan is made to the student after consultation with the student's parent or guardian. A student who is under 21 years of age may apply for an Authority-approved loan. By special law, students 16 or over have full legal capacity to act in their own behalf.

LIMITATIONS

The proceeds of a loan may be used only for current educational expenses. The amount of each loan will be a matter for decision between the student and the Lending Institution, but borrowing under the program cannot exceed one thousand dollars (\$1,000), exclusive of interest and charges, for any one academic year or its equivalent or seven thousand five hundred dollars (\$7,500) for all years. A loan application will ordinarily cover a loan for one academic year. For succeeding years the student, if again qualifying, may apply for needed funds.

REPAYMENT

Repayments begin on a monthly installment basis nine months after graduation, or after the borrower ceases to be a full-time college student, whichever first occurs. At that time the borrower gives the Lending Institution an installment note in exchange for his outstanding note or notes. The length of the repayment period and the amount of the monthly repayment requirement depend upon the total amount of the indebtedness. If this exceeds two thousand dollars (\$2,000) the period of repayment will not be less than five years.

The borrower may prepay all or any part of the principal of a note at any time without penalty and without liability for interest not then accrued.



COURSES OF INSTRUCTION

The courses offered in each department participating in the graduate program are listed on the pages that follow:

Courses numbered 500 to 599 are designed primarily for graduate students but are open to qualified undergraduate students. Courses numbered 600 and above are open to graduate students only.

All courses listed are expected to be offered every year unless otherwise indicated. However, such references are only meant to be guides for planning and are subject to change. (I = First Semester; II = Second Semester; I or II = Offered Either Semester).

ART

DR. DILLER, *Head of the Department*

The Department of Art offers both the *Master of Arts in Education* degree with a major in Art and the *Master of Arts* degree with a major in Art.

Besides the general admission requirements, the prospective graduate student in Art must present evidence of successful completion of at least thirty-six (36) semester hours, or the equivalent, in art, including six (6) semester hours surveying generally the history of Western Art. Further, a portfolio including actual examples, photographs, and/or slides of the student's work must be submitted to the faculty of the Art Department for examination before action on an application for admission to a master's degree program takes place.

The *Master of Arts* degree with a major in Art is designed to provide studio disciplines at an advanced level. The student is expected to concentrate within a general area. Those now available are (1) painting, drawing, and printmaking; (2) sculpture; and (3) ceramics. The minimum requirement for the *Master of*

Arts with a major in Art is thirty (30) semester hours of graduate credit in Art including twelve (12) semester hours in one of the areas of concentration, Art 683 (Criticism of Art), and six (6) semester hours in graduate-level courses in Art History. The candidate is also expected to produce an exhibition of his graduate work near the end of the study program.

The program leading to the *Master of Arts in Education* degree is designed especially for teachers who wish to expand their background in professional education as well as in the subject field. It further provides the opportunity to learn contemporary techniques, psychology and philosophy in art education for direct application to their jobs. Minimum requirements for the *Master of Arts in Education* degree with a major in Art are twenty-one (21) semester hours of graduate credit in Art including Art 683 (Criticism of Art) and Art 700, which results in a written thesis in this degree; and a minor of nine (9) semester hours in Education chosen from the graduate courses recommended by the Education Department.

Minor: Students planning a program leading to the *Master of Arts in Education* degree with a major in Education may minor in Art with a minimum requirement of twelve (12) semester hours of graduate credit in Art, including Art 683 (Criticism of Art).

ART HISTORY AND CRITICISM COURSES

- ART 503. STUDIES IN GREEK ART.
- ART 605. NINETEENTH-CENTURY ART.
- ART 606. TWENTIETH-CENTURY ART.
- ART 683. CRITICISM OF ART.

ART EDUCATION COURSES

- ART 510. ART, THE CHILD, AND THE SCHOOL.
- ART 515. STUDIO PROBLEMS IN ART EDUCATION.
- ART 616. ART AND THE ADOLESCENT.

STUDIO ART COURSES

ART 524. ADVANCED WEAVING AND TEXTILE DESIGN.

ART 526. ADVANCED JEWELRY AND METALWORK.

ART 530. SCULPTURE.

ART 550. PRINTMAKING.

ART 560. GRAPHICS AND PAINTING.

ART 570. ADVANCED CERAMIC DESIGN.

ART 630. SCULPTURE.

ART 660. GRAPHICS AND PAINTING.

ART 670. CERAMICS.

SPECIAL ART COURSES

ART 501. WORKSHOPS IN ART.

ART 680. READING AND RESEARCH.

ART 700. THESIS.

COURSE OFFERINGS

ART 501. WORKSHOPS IN ART. (Summer Only) Each area three hours daily for two weeks. 1 credit each area.

Concentrated workshops, accompanied by lecture and discussion periods, selected from such areas as painting, sculpture, printmaking, ceramics, art education, photography, and crafts. This course is particularly designed to update and strengthen art skills of practicing teachers.

ART 503. STUDIES IN GREEK ART. (1973-74) 3 credits.

A selection of specialized topics in the arts of ancient Greece. Sculpture, Architecture, Pottery and other arts of a given period will be studied in depth. *Prerequisite: Art 205 or equivalent.*

ART 510. ART, THE CHILD, AND THE SCHOOL. (By Demand) 3 credits.

Art and its relationship to the needs of the preschool and school child. The development of the child through the creative process is examined through laboratory work, discussions and readings. The purpose is to improve art teaching in the schools. *Prerequisite: Art 310 or equivalent.*

ART 515. STUDIO PROBLEMS IN ART EDUCATION. (By Demand)
3-6 credits.

Specific problem areas, according to individual needs, are investigated, discussed and evaluated.

- ART 524. ADVANCED WEAVING AND TEXTILE DESIGN. (I or II) 3-4 credits.

Studio projects in handcrafted textile arts. Ordinarily the emphasis will be on either weaving or, alternatively, methods of textile decoration. *Prerequisite: Art 121 or equivalent.*

- ART 526. ADVANCED JEWELRY AND METALWORK. (I or II) 3-4 credits.

Studio projects in the metal arts. The student may elect to widen his experience in these craft areas, or to specialize in one or two of them. Emphasis is on high quality of craftsmanship and design. *Prerequisite: Art 122 or equivalent.*

- ART 530. SCULPTURE. (I or II) 3-6 credits.

Advanced sculptural projects with choices from a wide range of materials and techniques including welding, casting, wood and metal construction, wood and stone carving, and others. *Prerequisite: Art 434 or equivalent.*

- ART 550. PRINTMAKING. (I or II) 3-4 credits.

Problems in printmaking chosen from intaglio processes such as etching and engraving, and from woodcut, serigraphy, and lithography. *Prerequisite: Art 354 or equivalent.*

- ART 560. GRAPHICS AND PAINTING. (I or II) 3-6 credits.

Studio work aimed towards the development of the student's individual expressive means. The student may choose from a wide variety of media. *Prerequisites: Art 244, Art 360 or equivalent.*

- ART 570. ADVANCED CERAMIC DESIGN. (I or II) 3-6 credits.

Individual development in the techniques and processes of ceramic design, with emphasis upon quality as evidenced in form, color, and decoration. *Prerequisite: Art 373 or equivalent.*

- ART 605. NINETEENTH-CENTURY ART. (Summer, 1973) 3 credits.

A seminar dealing with important aspects of the art and architecture of the Western World during the 19th century. *Prerequisite: Art 405 or equivalent.*

- ART 606. TWENTIETH-CENTURY ART. (Summer, 1974) 3 credits.

A seminar investigating in depth selected movements and philosophies in art and architecture of the 20th century. *Prerequisite: Art 405 or equivalent.*

- ART 616. ART AND THE ADOLESCENT. (By Demand) 3 credits.

A course emphasizing the needs and development of the preadolescent and adolescent in terms of creative expression. *Prerequisite: Art 316 or equivalent.*

ART 630. SCULPTURE. (I or II) 3-6 credits.

Individual problems in sculpture. Special consideration will be given to the relation between the sculptural work of art and its environmental setting. *Prerequisite: Art 530.*

ART 660. GRAPHICS AND PAINTING. (I or II) 3-6 credits.

Individual studio problems stressing the relation between pictorial organization and the demands of expression. Media will be chosen by the student in consultation with the instructor. *Prerequisite: Art 560.*

ART 670. CERAMICS. (I or II) 3-6 credits.

Ceramic problems which may be an extension of Advanced Ceramic Design, or which may emphasize experimental investigation of glaze or ceramic body compositions. *Prerequisite: Art 373 or equivalent.*

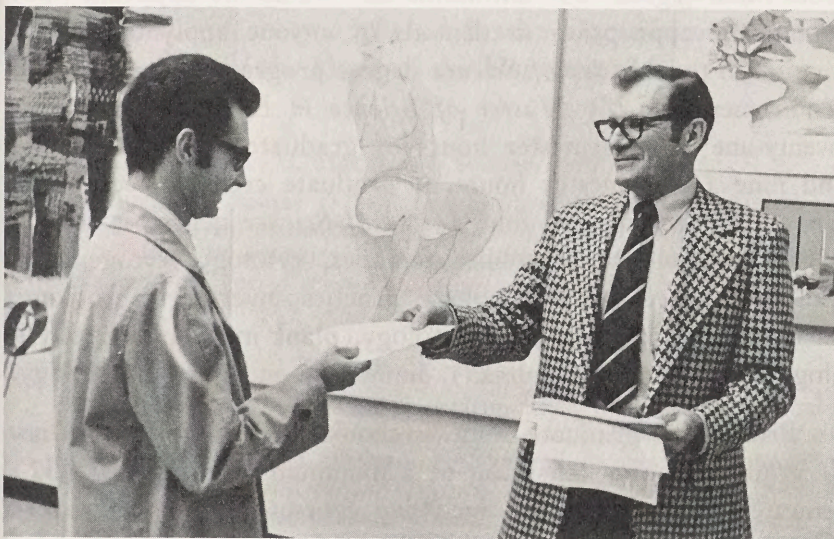
ART 680. READING AND RESEARCH. 3 credits.

Directed reading and research in art areas of special concern to the student. Usually the topics will deal with art history, art theory, philosophical aesthetics, or technical problems related to art production. Approval of the Head of the Art Department and the instructor who will direct the research is required.

ART 683. CRITICISM OF ART. (Summer Only) 3 credits.

An overview of major art theories, both as philosophy and as style analysis, for the purpose of investigating the functions and practice of art criticism.

ART 700. THESIS. 6 credits.



BIOLOGY

DR. TRELAWNY, *Acting Head of the Department*

The graduate program of the Department of Biology has three aims: (1) to supplement the candidate's subject-matter background and to emphasize the impact of biological principles on economic and social problems of our times; (2) to give the professional teacher an opportunity to learn techniques of value for actual classroom experiences as well as to introduce modern concepts of biology; (3) to introduce all students to research, the one fundamental method by which our knowledge progresses.

The Department of Biology offers both the *Master of Science* degree with a major in biology and the *Master of Science in Education* degree with a major in biology. The minimum requirement for the *Master of Science* degree is thirty (30) semester hours of graduate credit in biology including Biology 700 (Thesis). Of these, not more than eight (8) hours of graduate study including not more than two (2) courses may be taken in a "non-degree" status and credited toward the *Master of Science* degree. Accompanying a request for change from "non-degree" to "unconditional" status the applicant must submit the appropriate credentials of anyone applying for admission to the *Master of Science* degree program. The minimum requirement for the *Master of Science in Education* degree is twenty-one (21) semester hours of graduate credit in biology and nine (9) semester hours of graduate credit in education. Thesis research toward the *Master of Science* degree is offered in the following fields: biosystematics, cytology, cytogenetics, ecology, embryology, entomology, genetics, invertebrate zoology, microbiology, mycology, parasitology, plant morphology, physiology (cell, plant and human), limnology and algal physiology.

Prospective graduate students should have completed an undergraduate major consisting of a minimum of thirty-two (32) semester hours in biology, including courses covering the areas

of general botany, general zoology, physiology (cell, plant or human), ecology (or some other area involving field work), and genetics. A student may be admitted with deficiencies in one or more of these areas, but should be aware that he may be required by his Graduate Advisory Committee to make up deficiencies for no credit toward his master's degree. The applicant should also have completed a minimum of twelve (12) semester hours of chemistry, including organic chemistry. A course in general physics is strongly recommended, especially for those students interested in physiology or genetics. Additionally, submission of scores on the Graduate Record Aptitude Tests (verbal and quantitative) and the Advanced Test in Biology is required for admission to the Graduate Program in Biology.

Full-time students who elect to major in the Department of Biology are required to attend and participate in the bi-weekly departmental seminar while in residence.

Graduate students planning a program of study leading to the *Master of Science in Education* degree with a major in education may minor in biology with a minimum requirement of twelve (12) semester hours of graduate credit in biology.

Students electing to major or to minor in biology must have their program of study approved by the Departmental Graduate Committee and the Head of the Department.

BIOLOGY 505. NATURAL HISTORY. (Summer only), 3 credits.

An integrated course in field biology designed to acquaint students with local plants and animals both in terrestrial and aquatic habitats. (A course restricted to graduate students majoring in elementary education with a minor in general science. Cannot be counted toward any degree with a major in biology.)

BIOLOGY 510. ANIMAL ECOLOGY. (Summer, 1974), 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.

BIOLOGY 515. PARASITOLOGY. (I), 4 credits.

A study of the origin and nature of parasitism as illustrated by representative animal parasites. Emphasis is on species of medical and economic importance.

BIOLOGY 516. VERTEBRATE EMBRYOLOGY. (I), 4 credits.

An introduction to the comparative developmental anatomy of the vertebrates, including the human. (Recommended for students who are majoring or minoring in biology, students preparing to teach, and for students preparing for medicine, medical technology, or nursing.) *Prerequisite: Bio. 120.*

BIOLOGY 520. PLANT ECOLOGY. (II, 1974), 3 credits.

A study of the distribution and association of plants in relation to their physical and biological environments. Concepts include migration, invasion, competition, successions and climax as these influence environmental change, conservation, and wildlife. (Open only by permission of the instructor.) *Prerequisite: Bio. 130.*

BIOLOGY 540. ADVANCED MICROBIOLOGY. (Summer, 1973), 4 credits.

This course covers the methods for the selective cultivation and isolation of bacteria and fungi, together with theoretical and applied aspects which relate to the biochemical and serological studies required for their identification. The architecture, classification, and cultivation of viruses is also included. *Prerequisite: Bio. 280.*

BIOLOGY 545. CYTOLOGY. (I), 4 credits.

A study of the organization and components of cells, relating structure to function. Laboratory study will include cytoplasmic organelles as well as nuclear and chromosomal morphology. *Prerequisite: Bio. 330.*

BIOLOGY 550. CELLULAR PHYSIOLOGY. (II), 4 credits.

A study of physiochemical relationships as they apply to cell function. *Prerequisites: Chem. 235-236.*

BIOLOGY 555. INTRODUCTION TO PLANT PHYSIOLOGY. (I), 4 credits.

An introduction to the physiology of higher plant cells and organisms including both biophysical and biochemical aspects. Discussions include water relations, mineral nutrition, transport phenomena, metabolism, growth and development, and selected topics in physiological ecology. *Prerequisites: Bio. 130 and Chem. 235-236.*

BIOLOGY 560. SYSTEMATIC ENTOMOLOGY. (II), 4 credits.

A laboratory and field study of the common insects, their morphology, life histories and their relation to plants, animals, and man. Collection, identification, and preservation of local insects by standard methods. *Prerequisite: Bio. 120.*

BIOLOGY 570. CRYPTOGAMIC BOTANY. (Summer, 1973), 4 credits.

Comparative morphology, ecology and taxonomy of representative algae, fungi, and bryophytes, and nonseed-bearing vascular plants.

BIOLOGY 580. VERTEBRATE HISTOLOGY. (II), 4 credits.

A comparative study of the microscopic anatomy of vertebrates.
Prerequisites: Bio. 120 and either Bio. 320 or Bio. 516.

BIOLOGY 610. POPULATION GENETICS. (II), 4 credits.

An introductory study of the genetics of populations as a basis for understanding evolutionary change.

BIOLOGY 616. ADVANCED EMBRYOLOGY. (I, 1973), 3 credits.

A review of the modern problems of developmental biology with emphasis given to the topics of cytodifferentiation, protein synthesis, enzyme regulation, and the interplay between DNA and RNA.

BIOLOGY 640. MEDICAL ENTOMOLOGY. (II, 1974), 4 credits.

A study of the arthropods that parasitize man or serve as vectors of human pathogens. Morphological features, distribution, life histories, and control methods will be emphasized.

BIOLOGY 650. RADIATION BIOLOGY. (I, 1973), 3 credits.

A study of the effect of ionizing radiation on organisms. The nature and source of these radiations will be discussed as well as their effect and methods of protection against them. The experimental nature of the field is stressed through the inclusion of varied laboratory experiments.

BIOLOGY 660. MYCOLOGY. (I, 1974), 4 credits.

An introduction to the structure and form of fungi with consideration of their experimental potential and relationships to human affairs.

BIOLOGY 670. DEVELOPMENTAL ANATOMY OF HIGHER PLANTS.
(I, 1974), 4 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.

BIOLOGY 675. AQUATIC ECOLOGY. (Summer, 1973), 4 credits.

A study of the life of the fresh-water environment. Emphasis on methods for the examination of effects of physical and chemical factors on aquatic organisms and interpretive procedures of assaying results of aquatic investigations.

BIOLOGY 685. SYSTEMATICS OF VASCULAR PLANTS. (Summer, 1974), 3 credits.

This course is a study of the classification systems beginning with the pragmatic systems of the Greeks and continuing through the phylogenetic systems of the present, emphasizing pre- and post-Darwinian concepts. Major consideration will be given the identification and nomenclature of the native flora of the State with emphasis on the ecological relationships between the species. Problematic areas such as the species concept and the development of a true phylogenetic system of classification will be discussed. *Prerequisite: Biology 130 (or consent of the instructor).*

BIOLOGY 690. INSECT ECOLOGY. (Summer, 1973), 4 credits.

The environmental relations of insects, including insect development, habits, distribution, and abundance. Emphasis will be placed on field studies.

BIOLOGY 695. INDEPENDENT STUDY. 3 credits.

Individual research in the discipline involved.

BIOLOGY 700. THESIS. 6 credits.



DEPARTMENT OF BUSINESS ADMINISTRATION AND ECONOMICS

DR. MACE, *Head of the Department*

The Department of Business Administration and Economics offers a program leading to a *Master of Business Administration* degree, and graduate courses designed to supplement and broaden knowledge in the field of business administration for *Master of Science in Education* candidates. Graduate courses in economics are offered in conjunction with the MBA program and for *Master of Science* or *Master of Arts* candidates in education.

The program for the *Master of Business Administration* degree requires a minimum of thirty-three (33) credits in business administration. These include a core program of eighteen (18) credits and either fifteen (15) credits in elective fields or nine (9) credits in elective fields and six (6) credits for a thesis. Only six (6) hours of electives may be taken in economics.

The core program consists of Business Administration 602 (Research Methodology and Quantitative Analysis), Business Administration 640 (Seminar in Planning and Control), Business Administration 645 (Seminar in Organizational Theory), Business Administration 655 (Seminar in Financial Management and Control), Business Administration 670 (Seminar in Policy Formulation and Administration), and Economics 650 (Economics of the Firm). Students who have completed intermediate microeconomic theory at the undergraduate level may be permitted to waive the requirements for Economics 650 (Economics of the Firm) and select an additional three hours of elective courses.

In the discipline of Economics, the Department of Business Administration and Economics offers a program of graduate study leading to a minor. The minimum requirement is twelve (12) semester hours of graduate credits.

Six (6) semester hours must be taken from the following courses: Economics 560 (Welfare Economics), Economics 570 (Advanced Economic Theory), Economics 600 (Contemporary Economics), and Economics 620 (Seminar in Economic Policy). Six (6) additional hours must be taken from the following courses: Economics 501 (Economic Seminar: Industry-in-Action), Economics 522 (Economic Problems of Emerging Nations), Economics 527 (Economic Problems of Modern Europe), Economics 650 (Economics of the Firm), Economics 655 (Economic Seminar: Market Organization and Structure), Economics 670 (Seminar in Wages and Employment), and Geography 610 (Seminar in Economic Geography).

In addition, graduate students pursuing the *Master of Arts in Education* degree with a major in Social Science may concentrate in Economics. A concentration in Economics requires twelve (12) semester hours of graduate credit.

BUSINESS ADMINISTRATION 502. ADVANCED MARKETING RESEARCH AND ANALYSIS. (I or II) 3 credits.

Study of the role of research in marketing decision-making; the research process; scientific-method; analysis and interpretation of research findings. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 510. MANAGEMENT SEMINAR. (I or II) 3 credits.

Study and analysis in the major areas of management, the functions of management, and the setting of goals and objectives. Brings together all the factors of management in a comprehensive course. *Prerequisite: Admission to the MBA Program or permission of head of the department.*

BUSINESS ADMINISTRATION 515. FINANCIAL STATEMENT ANALYSIS. (I or II) 3 credits.

A study of the concepts, theories, and principles underlying financial statements, controversial problems in asset valuations and price level changes. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 524. MANAGERIAL ECONOMIC ANALYSIS. (I or II) 3 credits.

Analysis of economic forces affecting business management including economic consideration in managerial control, forecasting, and decision-

making. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 530. SEMINAR IN AMERICAN BUSINESS.
(I or II) 3 credits.

A comprehensive review of the corporate business in America. Field trips to industry are an essential part of the course. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 531. SEMINAR IN PERSONNEL
MANAGEMENT. (I or II) 3 credits.

Analysis of day to day and long term industrial and commercial personnel problems. Review of major personnel decisions affecting business enterprises and approaches being recommended for meeting future problems. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 540. COLLECTIVE BARGAINING AND
LABOR RELATIONS.
(I or II) 3 credits.

A comprehensive review of the development and current status of national labor policy. Consideration will also be given to organization of labor unions, analysis of bargaining power, bargaining strategy and tactics of unions and management, and the current economic and social impact of organized labor. Case study method and guest speakers will be included. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 602. RESEARCH METHODOLOGY AND
QUANTITATIVE ANALYSIS
(I) 3 credits.

An introduction to the theory and methods of scientific research for graduate students in the fields of Business-Economics and related Social Sciences. Topics covered include problem identification, formulation of hypotheses, sampling, data classification, empirical techniques of analysis and presentation of research results. *Prerequisite: Bus. Adm. 390 or consent of the instructor.*

BUSINESS ADMINISTRATION 606. PHYSICAL DISTRIBUTION
MANAGEMENT. (I or II) 3 credits.

A course designed to familiarize the advanced Marketing student with the functions, facilities, and activities involved in the management of movement and storage services, and coordination of demand and supply patterns for the optimization of physical distribution activities in terms of cost and customer service. Particular attention will be given to such factors as location, inventory control, and responsiveness to changes in customer requirements. *Prerequisite: Bus. Adm. 386, Econ. 230-235, Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 616. CONTROLLERSHIP IN BUSINESS
(I or II) 3 credits.

In-depth study in the basic concepts of a control system, management's uses of financial data, project planning, specific controls in marketing, production, personnel, and planning capital acquisitions.

BUSINESS ADMINISTRATION 626. ADVANCED PRICING THEORY.
(I or II) 3 credits.

An analysis of the development of modern price theory, with particular emphasis upon current concepts in demand and supply analysis, and the techniques whereby business firms actually price their products. *Prerequisite: Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 640. SEMINAR IN PLANNING AND
CONTROL. (I or II) 3 credits.

This course deals with the review and evaluation of the conceptual foundations of the management planning process and the use of management controls. Consideration is given to the formulation, evaluation and modifying in establishing long and short term plans. Budgets and other managerial tools used to evaluate performance in both dollar and non-dollar terms are emphasized. *Prerequisite: Bus. Adm. 280, Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 645. SEMINAR IN ORGANIZATIONAL
THEORY. (I or II) 3 credits.

A review of classical and neo-classical organizational theory with special emphasis upon the behavioral sciences and their application in working with and through individuals and groups. *Prerequisite: Bus. Adm. 280 and Admission to the MBA program.*

BUSINESS ADMINISTRATION 655. SEMINAR IN FINANCIAL MANAGE-
MENT AND CONTROL. (I or II)
3 credits.

Emphasizes financial planning, management of short term assets and liabilities, optimum policies for inventories, accounts receivables and cash, capital structure policies, cost of capital and capital expenditure policies. *Prerequisite: Admission to the MBA Program or permission of head of the department.*

BUSINESS ADMINISTRATION 670. SEMINAR IN POLICY FORMULATION
AND ADMINISTRATION.
(I or II) 3 credits.

Developing, through the seminar approach and case problem method, of executive skills in the area of business policies. Emphasis is upon competence in effective analysis of organizational problems, formulation and implementation of managerial policies. *Prerequisite: Bus. Adm. 487, Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 674. SEMINAR IN MARKETING.
(I or II) 3 credits.

Study and analysis in the major areas of marketing; students will analyze individual problems, consider alternate solutions and decide on a preferred course of action. Problem solving techniques and research methods will be applied, with emphasis on modern trends and concepts in marketing. *Prerequisite: Bus. Adm. 380, Admission to the MBA program or permission of head of the department.*

BUSINESS ADMINISTRATION 700. THESIS. 6 credits.

ECONOMICS 501. ECONOMICS SEMINAR: INDUSTRY-IN-ACTION.
(I or II) 3 credits.

This course deals with the contemporary American enterprise system. Students will participate in local and extended overnight field trips to major representative industrial plants to examine the operation of our economic system at the production level.

Enrollment will be limited. Because of the overnight field trips, a special non-refundable fee of forty dollars (\$40) must be paid *in advance* to the Head of the Department. This special fee will be in addition to regular registration fees for the course which are payable to the Business Office.

ECONOMICS 522. ECONOMIC PROBLEMS OF EMERGING NATIONS.
(I or II) 3 credits.

A study of economic prospects in the emerging underdeveloped nations of the world. Using a case study approach, selected areas will be investigated in terms of their past with emphasis on economic growth and the prospects of improving standards of living for the masses in a technological age. *Prerequisite: Econ. 410 or permission of the instructor.*

ECONOMICS 527. ECONOMIC PROBLEMS OF MODERN EUROPE.
(I or II) 3 credits.

A study of economic conditions and related political developments as a background for understanding the contemporary economic positions of major European countries. *Prerequisite: Econ. 230-235 or permission of the instructor.*

ECONOMICS 530. SEMINAR IN ECONOMIC PROBLEMS.
(I or II) 3 credits.

Students participating in this workshop will examine various contemporary economic problems, including agriculture, automation, labor, management, international trade and other problems. *Prerequisite: Econ. 230-235 or admission to the MBA program.*

ECONOMICS 560. WELFARE ECONOMICS.
(I or II) 3 credits.

Examination of the welfare economic theories of Pigou, Pareto, J. R. Hicks, and others, evaluation of current economic welfare policies, and

consideration of alternative economic welfare goals. *Prerequisite: Econ. 230-235.*

ECONOMICS 570. ADVANCED ECONOMIC THEORY.
(I or II) 3 credits.

An advanced study leading toward a synthesis of pricing, distribution, and national income theories. *Prerequisite: Econ. 330-335 or permission of instructor.*

ECONOMICS 600. CONTEMPORARY ECONOMICS.
(I or II) 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. *Prerequisite: Econ. 230-235.*

ECONOMICS 620. SEMINAR IN ECONOMIC POLICY.
(I or II) 3 credits.

A study of national economic policy as it relates to unemployment, inflation, and the rate of economic growth.

Particular programs and proposals will be viewed from the perspective of their being the means of moving toward general economic policy objectives. *Prerequisite: Econ. 230-235 or admission to the MBA program.*

ECONOMICS 650. ECONOMICS OF THE FIRM. (I or II) 3 credits.

Theories of demand, production and pricing with special emphasis on recent developments in theories of the firm including linear programming, game theory, and risk and uncertainty. *Prerequisite: Econ. 230-235 and permission of the instructor.*

ECONOMICS 655. ECONOMIC SEMINAR: MARKET ORGANIZATION AND STRUCTURE. (I or II) 3 credits.

An exploration of the relationship of market organization and structure to the efficiency of the production and marketing processes. Alternative market structures will be examined with particular emphasis on the effectiveness of competition and on the economic performance of a range of industries characterized by varying degrees of market concentration and government intervention. *Prerequisite: Econ. 330 or 650 or permission of the instructor.*

ECONOMICS 670. SEMINAR IN WAGES AND EMPLOYMENT.
(I or II) 3 credits.

An advanced course in the theoretical analysis of national labor markets and related public policy issues. Major emphasis will focus on wage and employment theory, the economic effects of technological change, the problem of inflation and a consideration of employment and income maintenance policies. *Prerequisite: Econ. 330-335 or permission of instructor.*

ECONOMICS 680. READING AND RESEARCH. 3 credits.

Opportunity is offered the individual student for reading and research in the areas of economics which are of special interest to the student. *Reading and Research* may be done only in major field of study. *Prerequisite: Econ. 230-235 and permission of the Head of the Department.*

ECONOMICS 700. THESIS. 6 credits.



BUSINESS EDUCATION

DR. DICKERSON, *Head of the Department*

The graduate program of the Department of Business Education is planned so the student may (1) improve his teaching ability, (2) develop personally and professionally, and (3) strengthen his ability to do research.

The Department of Business Education offers a program of study leading to the *Master of Science in Education* degree with a major in Business Education. The minimum requirement for a major in Business Education is twenty-one (21) semester hours of graduate credit in Business Education. Students planning a program of study leading to the *Master of Science in Education* degree with a major in Education may minor in Business Education with a minimum requirement of twelve (12) semester hours of graduate credit in Business Education.

Each student majoring in the department will be assigned a graduate committee of three from which a chairman will be selected. The committee will assist the graduate student in preparing a program commensurate with his background and teaching and future educational goals.

BUSINESS EDUCATION 501. WORKSHOPS IN BUSINESS EDUCATION.
(Summer Only) 1-3 credits.

Comprehensive workshops in areas of business education to provide the latest methods of teacher education through in-service education.

BUSINESS EDUCATION 505. SEMINAR IN BUSINESS EDUCATION.
(I) 3 credits.

A seminar involving a study of the relationship of business education to business and industry to enable the teacher to obtain a better understanding of the free enterprise system. Field trips, consultants, and case studies are essential parts of the course.

BUSINESS EDUCATION 520. ADVANCED STUDIES IN THE BASIC
BUSINESS SUBJECTS. (I or II) 3 credits.

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

BUSINESS EDUCATION 530. ADVANCED STUDIES IN BUSINESS MACHINES. (Summer Only) 3 credits.

Advanced studies for the improvement of the teaching of business machines. Practical experience on calculating, duplicating, secretarial, and other modern office equipment is an essential part of the course.

BUSINESS EDUCATION 540. SEMINAR IN AUTOMATED DATA PROCESSING. (Summer Only) 3 credits.

A course in the basic understanding of data processing, including extensive readings in the entire field. Laboratory emphasis on the operation of a unit record installation.

BUSINESS EDUCATION 600. CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION. (I or II) 3 credits.

Analysis of new curriculum patterns and the development of materials for use in the block-time program in business education.

BUSINESS EDUCATION 610. PROBLEMS IN BUSINESS EDUCATION. (I or II) 3 credits.

Consideration of individual problems in business. Topics covered will include programmed instruction, data processing, community surveys, tests and measurements, and related areas.

BUSINESS EDUCATION 620. ADVANCED STUDIES IN THE SKILL BUSINESS SUBJECTS. (I or II) 3 credits.

Advanced studies for the improvement of the teaching of Type-writing and Shorthand.

BUSINESS EDUCATION 640. SEMINAR IN COMPUTER SYSTEMS. (Summer Only) 3 credits.

A course in the basic understandings of computer installations and systems, including all forms of input and output, capabilities of different central processing units, and languages for computers. Experience in program writing and hands-on operation of a business computer. *Prerequisite: Bus. Ed. 340 or equivalent.*

BUSINESS EDUCATION 650. ADVANCED STUDIES IN DATA PROCESSING SYSTEMS. (Summer Only) 3 credits.

Advanced studies designed to provide the latest methods and techniques essential to the teaching of unit record and computer systems. Practical machine experience will be included in the course. *Prerequisites: Bus. Ed. 540 and 640.*

BUSINESS EDUCATION 680. 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. *Reading and Research* may be done only in the major field of study.

BUSINESS EDUCATION 700. THESIS. 6 credits.

CHEMISTRY

DR. PALOCSAY, *Acting Head of the Department*

The Department of Chemistry offers graduate courses which are designed to supplement and broaden the students' knowledge in this discipline. A program of graduate study is offered which can apply to a minor in chemistry for those pursuing the *Master of Science in Education* degree with a major in education. The minimum requirement for a minor in chemistry is twelve (12) semester hours of graduate credit in chemistry.

CHEMISTRY 501. ADVANCED INORGANIC CHEMISTRY. (II), 3 credits

A course in fundamental concepts which deals with the relation of structure to properties, the periodic system, typical reactions and applications of physical chemical principles to inorganic systems. *Prerequisite: One semester of physical chemistry.*

CHEMISTRY 505. THEORETICAL CHEMISTRY. (Summer, 1974), 3 credits.

A study of fundamental concepts, laws, theories, and philosophies of chemistry. Considerable emphasis is placed on the practical applications of various 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. *Prerequisite: Permission of instructor.*

CHEMISTRY 510. PHYSIOLOGICAL CHEMISTRY.
(Summer, 1972), 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. *Prerequisite: One year of organic chemistry.*

CHEMISTRY 525. INTERMEDIATE ORGANIC CHEMISTRY. (I), 3 credits.

An advanced study of the theory of organic chemistry as applied to chemical reactions and synthetic methods. Such topics as reaction mechanisms, spectroscopy, and stereochemistry will be included. *Prerequisite: One year of organic chemistry.*

CHEMISTRY 602. SOLUTIONS. (Summer, 1974), 3 credits.

A study of modern theories of solutions. Considerable emphasis will be placed on nonaqueous solutions. *Prerequisite: Permission of instructor.*

CHEMISTRY 698. SPECIAL TOPICS IN CHEMISTRY.
(Summer, 1972) 3 credits.

Deals with a special phase of chemistry such as natural products, crystallography, organometallics, heterocyclics, dyes and terpenes, kinetics, etc. *Prerequisite: Permission of instructor.*

EDUCATION

DR. BLAIR, *Head of the Department*

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

The graduate program of the Department of Education is designed to improve the competency in professional education of teachers holding positions in the elementary school and of teachers in academic and special subject fields in the secondary school.

Students, regardless of classification, must have completed at least nine (9) hours of course work in undergraduate professional education before enrolling in graduate courses in education. Generally, the nine hours should have included study in educational or developmental psychology, curriculum, and methods of teaching. Exceptions to prerequisite requirements must be approved in writing by the department head and by the Dean of the School of Education.

MAJOR

The Department of Education offers six major programs of study. These programs are: (1) for teachers of nursery school and kindergarten; (2) for reading specialists; (3) for teachers in the secondary schools; (4) for college graduates who have not completed sufficient work in professional education to meet certification requirements; (5) for teachers in the elementary school; and (6) for elementary and secondary school principals.

Major programs which are designed to prepare (1) nursery school and kindergarten teachers, and (2) reading specialists require a minimum of thirty (30) semester hours for completion. The major programs for elementary and secondary school principals require a minimum of thirty-three (33) hours for com-

pletion. Students who major in these programs need not elect a minor to complete degree requirements.

Major programs other than the two mentioned above require a minimum of eighteen (18) semester hours for completion. Students who major in these programs must elect a minor to meet degree requirements.

A student may elect Education 700 (Thesis) for six (6) hours credit in any of the major programs in Education.

MAJOR PROGRAM IN EARLY CHILDHOOD EDUCATION

This program is designed to improve the competency of teachers holding positions in the Nursery School, Kindergarten, or First Grade, or teachers who plan to work at this level. Students who elect this major and who do not hold the Collegiate Professional Certificate with endorsement for the primary grades may need to take courses in addition to the minimum requirement for the major to meet certification requirements.

Semester Hours

Minimum Requirements	30
A. Required Courses	30
Education 509.	Curriculum for Early Childhood Education
Education 510.	The Creative Arts in Early Childhood Education
Education 609.	The Elementary School Curriculum
Education 612.	Advanced Curriculum Theory in Early Childhood Education
Psychology 614.	Laboratory Study of the Young Child

Semester Hours

Education 616. Practicum in Early
Childhood Education

Psychology 618. Seminar in Sensitivity
Training

Education 619. Seminar in Early
Childhood Education

Education 630. Research Methods
in Education

Psychology 648. Research in Human
Development

MAJOR PROGRAM IN ELEMENTARY EDUCATION

This graduate program of the Department of Education is designed to improve the competency in professional education of teachers holding positions in the elementary school.

Minimum Requirements 18

A. Required Courses 9

Education 609. The Elementary School
Curriculum

Education 630. Research Methods in
Education

Psychology 626. Growth and Development
During the Elementary
Years

B. Additional courses essential for effective teaching in the elementary school are required and must be selected with the approval of the adviser from Education. 9

Education 501. Workshop in Education

- | | |
|----------------|--|
| Education 502. | The Elementary School
Reading Program |
| Education 505. | The Role of the School
in Society |
| Education 509. | Curriculum for Early
Childhood Education |
| Education 520. | Audio-Visual Instruction |
| Guidance 520. | Principles and Practices
in Education |
| Education 525. | Teaching the Language
Arts in the Elementary
School |
| Education 530. | Teaching Mathematics
in the Elementary School |
| Education 535. | Teaching the Social
Studies in the Elementary
School |
| Education 540. | Supervising the
Student Teacher |
| Education 567. | Instruction |
| Education 603. | Philosophy of
Education |
| Education 620. | Comparative Education |
| Education 640. | Fundamentals of Edu-
cational Administration |
| Education 650. | Supervision of Instruction |
| Education 656. | Seminar in Elementary
Education |
| Education 658. | Diagnostic and
Remedial Techniques
in Reading |

Education 660. Practicum in Diagnostic
 and Remedial Techniques
 in Reading

Education 680. Reading and Research

Education 700. Thesis

- C. The student must also elect a minor of twelve (12) hours in a field outside of education. The courses included in the minor should be determined by the Department concerned and should be appropriate to the background of an elementary teacher (12 hours in one field, or 6 hours in each of two related fields). 12

MAJOR PROGRAM IN SECONDARY EDUCATION

This program provides a sequence of courses which will improve the competency in professional education of teachers holding positions in the secondary school.

Semester Hours

Minimum Requirements 18

A. Required Courses 9

Education 607. Secondary School
 Curriculum and
 Co-Curriculum

Psychology 628. Advanced Adolescent
 Psychology

Education 630. Research Methods in
 Education

- B. Background courses essential for effective teaching in the secondary school are required and must

Semester Hours

be selected with the approval of the adviser from
Education. 9

Education 501. Workshop in Education

Education 505. The Role of the School
in Society

Education 506. High School and Adult
Reading Programs

Education 520. Audio-Visual Instruction

Guidance 520. Guidance Principles and
Practices in Education

Education 533. Teaching Mathematics
in the Secondary School

Education 538. Teaching the Social
Studies in the
Secondary School

Education 539. Teaching Foreign
Language in the
Secondary School

Education 550. Junior High and Inter-
mediate School Education

Education 567. Instruction

Education 603. Philosophy of Education

Education 620. Comparative Education

Education 640. The Fundamentals of
Educational
Administration

Education 650. Supervision of
Instruction

Education 658.	Diagnostic and Remedial Techniques in Reading
Education 660.	Practicum in Diagnostic and Remedial Techniques in Reading
Education 680.	Reading and Research
Education 700.	Thesis

- C. The student must also elect a minor of twelve (12) hours in a field outside of Education. The courses included in the minor should be determined by the Department concerned and should be appropriate to the background of a secondary teacher.

MAJOR PROGRAM FOR COLLEGE GRADUATES
WHO HAVE NOT COMPLETED THE NECESSARY
COURSES IN PROFESSIONAL EDUCATION AND
WHO WISH TO MEET CERTIFICATION
REQUIREMENTS

Students who have completed undergraduate programs in areas other than teacher education may wish to enter programs of study which lead to both a teaching certificate and a *Master of Arts* or a *Master of Science* degree in Education. To meet the needs of these students, the Education Department aids in the development of programs of study which usually consist of four components.

I. Selected Undergraduate Courses

These courses are selected to aid the student in meeting certification requirements and in establishing an adequate background for graduate study in professional education. The quantity and character of the undergraduate courses selected are determined by evaluating academic background as it relates to the student's professional objective.

II. Graduate Major in Education

The courses included in this aspect of the program are determined by the professional objective of the student. A minimum of eighteen (18) hours of graduate courses in education is required.

- A. Courses which might appear in this portion of the program for students desiring to teach in the elementary school are as follows:

Education 502.	The Elementary School Reading Program
Education 530.	Teaching Mathematics in the Elementary School
Education 603.	Philosophy of Education
Education 609.	The Elementary School Curriculum
Education 630.	Research Methods in Education
Psychology 626.	Growth and Development during the Elementary Years

- B. Courses which might appear in this portion of the program for students who plan to teach at the secondary level are as follows:

Guidance 520.	Guidance Principles and Practices in Education
Education 506.	High School and Adult Reading Programs
Education 603.	Philosophy of Education
Education 607.	Secondary School Curriculum and Co-Curriculum

- Psychology 628. Advanced Adolescent
 Psychology

- Education 630. Research Methods in Education

III. Graduate Minor

The student must also elect a minor of twelve (12) semester hours in a field outside education. The course included in the minor should be determined by the Department concerned and should be appropriate to the teaching field.

IV. Directed Teaching

A student may need to earn eight (8) additional hours of credit in Directed Teaching in the public schools under supervision.

MAJOR PROGRAM FOR READING SPECIALISTS

This program is designed to prepare reading specialists for the schools served by Madison College. The standards for the professional training of reading specialists established by the International Reading Association are met in this program.

Semester Hours

Minimum Requirements	30
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A. Required Courses

Education 502. The Elementary School
Reading Program

Education 506. High School and Adult Reading Programs

Education 630. Research Methods in Education

Education 658. Diagnostic and Remedial Techniques in Reading

- | | | |
|--|--|----|
| Education 660. | Practicum in Diagnostic
and Remedial Techniques
in Reading | |
| B. Twelve semester hours from the following: | | 12 |
| Education 607. | Secondary School
Curriculum and
Co-Curriculum | |
| Education 609. | Elementary School
Curriculum | |
| Psychology 626. | Growth and Development
During the Elementary Years | |
| Psychology 628. | Advanced Adolescent
Psychology | |
| Education 650. | Supervision of
Instruction | |
| Psychology 670. | Group Psychological Tests | |
| Education 680. | Reading and Research | |
| C. Three semester hours from the following: | | 3 |
| Guidance 520. | Guidance Principles and
Practices in Education | |
| Psychology 648. | Research in Human
Development | |
| Psychology 675. | Individual Intelligence
Testing | |

MAJOR PROGRAMS FOR SCHOOL ADMINISTRATORS

The Education Department offers graduate programs in educational administration which are designed to prepare students to serve as either elementary or secondary school principals.

In addition to general requirements for admission to graduate study in the Education Department at Madison College, applicants for these programs must meet the following requirements:

- (a) For admission to full-time graduate study in these programs the applicant must have completed two years of successful teaching at the appropriate level (elementary or secondary) as evidenced by a letter of recommendation from a public school supervisor or administrator acquainted with his work. Part-time admission will be granted to students who are concurrently engaged in teaching at the appropriate level and who supply similar evidence of teaching success.
- (b) Previous study in Education must have included study related to the level at which the student plans to serve as a principal.
- (c) Letters of reference from public school personnel must be provided which would indicate potential to function effectively as a principal.

In addition to general degree requirements, candidates for degrees in these programs must meet the following requirements:

- (a) Collegiate Professional Certificate with endorsement for the appropriate level.
- (b) Possession of leadership qualities essential to the principalship.
- (c) A minimum of three years of public school experience.

I. Program for Elementary School Principals Minimum Requirements. 33

A. Foundation Areas 9

1. Required 6

Psychology 626. Growth & Development During the Elementary Years

Education 630.	Research Methods in Education	
2. Electives		3
Education 505.	The Role of the School in Society	
Education 603.	Philosophy of Education or a course in Psychology or Social Science selected with the approval of adviser.	
B. Instructional Program		9
1. Required		3
Education 609.	Elementary School Curriculum	
2. Electives		6
Two of the following must be selected with the approval of adviser:		
Education 501.	Workshop in Education	
Education 502.	The Elementary School Reading Program	
Education 525.	Teaching the Language Arts in the Elementary School	
Education 530.	Teaching Mathematics in the Elementary School	
Education 535.	Teaching the Social Studies in the Elementary School	
Education 550.	Junior High and Intermediate School Education	
Education 567.	Instruction	
Education 585.	Administration and Supervision in Early Childhood Education	

C. Administration and Supervision 15

1. Required 15

Education 640. The Fundamentals of
Educational Administration

Education 650. Supervision of Instruction

Education 647. The Elementary School
Principal

Education 649. Internship for Principals

II. Program for Secondary School Principals Minimum Requirements 33

A. Foundation Areas 9

1. Required 6

Psychology 628. Advanced Adolescent
Psychology

Education 630. Research Methods in
Education

2. Electives 3

Education 505. The Role of the School in
Society

A course in Psychology or Education 603. Phil-
osophy of Education or Social Science selected with
the approval of the adviser

B. Instructional Program 9

1. Required 3

Education 607. Secondary School Curriculum
and Co-Curriculum

2. Electives 6

Two courses elected with the approval of the ad-
viser

C. Administration and Supervision	15
1. Required	15
Education 640.	The Fundamentals of Educational Administration
Education 650.	Supervision of Instruction
Education 648.	The Secondary School Principal
Education 649.	Internship for Principals

MINOR

The candidate for the Master's degree who elects to major in a subject field and to minor in Education must successfully complete a minimum of nine (9) semester hours of work. One course must be selected, with the approval of the adviser in Education, from each of the three following groups of courses:

A. One of the following:

Psychology 628.	Advanced Adolescent Psychology
Psychology 626.	Growth and Development During the Elementary Years

B. One of the following:

Education 607.	Secondary School Curriculum and Co-Curriculum
Education 609.	The Elementary School Curriculum

C. One of the following:

Education 501.	Workshop in Education
Education 502.	The Elementary School Reading Program

Education 506.	High School and Adult Reading Programs
Education 520.	Audio-Visual Instruction
Education 533.	Teaching Mathematics in the Secondary School
Education 538.	Teaching the Social Studies in the Secondary School
Education 540.	Supervising the Student Teacher
Education 550.	Junior High and Intermediate School Education
Education 567.	Instruction
Education 603.	Philosophy of Education
Education 620.	Comparative Education
Education 630.	Research Methods in Education
Education 640.	The Fundamentals of Educational Administration
Education 650.	Supervision of Instruction

COURSE OFFERINGS

EDUCATION 501. WORKSHOP IN EDUCATION. (I or II, Summer 1972), 3 credits.

The course is designed to provide students with workshop experience relative to the current needs evident in elementary and secondary school programs. The topics considered in each workshop will be determined by interest and demand. No more than six credit hours earned in workshops in Education may be applied to a major program in Education and no more than three hours may be applied to a minor program in Education.

- EDUCATION 502. THE ELEMENTARY SCHOOL READING PROGRAM.
(I or II, Summer 1972), 3 credits.

The total elementary school reading program will be examined including basal reading, remedial reading, recreational reading and reading in the subject-matter fields. Various approaches to these four areas such as the basal reader approach, the individualized approach, and the linguistic approach will be studied. *Prerequisite: Ed. 359 or equivalent.*

- EDUCATION 505. THE ROLE OF THE SCHOOL IN SOCIETY.
(I or II, Summer 1972), 3 credits.

A study of the forces affecting the organization, administration, curriculum, and other features of the school in the United States today. Particular emphasis is given to current issues and trends in American culture that bear on and give direction to school practice.

- EDUCATION 506. HIGH SCHOOL AND ADULT READING PROGRAMS.
(Summer 1972), 3 credits.

Basic reading skills, special reading skills, testing, program organization, reading rate, and reading in the content areas will be among the problems considered in this course.

- EDUCATION 509. CURRICULUM FOR EARLY CHILDHOOD EDUCATION.
(I and Alternate Summers), 3 credits.

Survey of theory and practice in curriculum development for early childhood education. Consideration will be given to historical contributions to contemporary programs. Emphasis is on the planning of appropriate learning experiences in the areas of science, social studies, and mathematics. *Prerequisite: Psy. 369 and 480 or Psy. 510 or equivalent.*

- EDUCATION 510. THE CREATIVE ARTS IN EARLY CHILDHOOD EDUCATION. (II and Alternate Summers), 3 credits.

Application of knowledge of the creative process and its nurture to programs for young children. The student will explore creative learning experiences in art, music, language arts, movement and dance. Interpretation and guidance of development in these areas will be emphasized. *Prerequisite: Psy. 369 and 480 or Psy. 510 or equivalent.*

- EDUCATION 520. AUDIO-VISUAL INSTRUCTION.
(II and Summers), 3 credits.

This course examines the principles underlying effective use of audio-visual equipment and materials in the teaching-learning process. Students will become familiar with both established and innovative audio-visual materials now used in public school systems. In addition, each student will produce audio-visual teaching aids appropriate to his own instructional area.

- EDUCATION 525. TEACHING THE LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. (1972-73), 3 credits.

This course for experienced teachers considers the principles and teaching techniques which are essential to effective language arts instruction.

tion in the elementary school. Attention is given to research findings and to innovative practices in the area of language arts instruction.

EDUCATION 530. TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL. (Summer Only), 3 credits.

This course is designed to assist experienced teachers to improve the teaching of mathematics in the elementary school. Opportunities for individual and group study of content, methodology, and instructional materials necessary to the design and implementation of instructional programs in modern mathematics will be provided.

EDUCATION 533. TEACHING MATHEMATICS IN THE SECONDARY SCHOOL. (Summer Only), 3 credits.

This course is designed to assist experienced teachers to improve the teaching of mathematics in the secondary school. Opportunities for individual and group study of content, methodology, and instructional materials essential to the design and implementation of effective instructional programs in modern mathematics will be provided.

EDUCATION 535. TEACHING THE SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. (1973-74), 3 credits.

This course for experienced teachers gives attention to the role of the social studies in the elementary school curriculum. Procedures for integrating content from the various social sciences are considered in relation to children at various stages of development.

EDUCATION 538. TEACHING THE SOCIAL STUDIES IN THE SECONDARY SCHOOL. (Summer Only), 3 credits.

This course is designed to assist experienced teachers in the improvement of social studies instruction at the secondary level. Attention is given to innovative programs and materials.

EDUCATION 539. TEACHING FOREIGN LANGUAGE IN THE SECONDARY SCHOOL. (Summer Only), 3 credits.

The purpose of this course is to assist teachers of foreign languages in the field who need a deeper understanding of the new methods in the teaching of foreign languages. (Formerly Foreign Language 550.)

EDUCATION 540. SUPERVISING THE STUDENT TEACHER. (1972-73), 3 credits.

The student teaching experience is explored as a major component of the teacher education program. Specific attention is given to the role of public school personnel in the guidance of the student teacher.

EDUCATION 550. JUNIOR HIGH AND INTERMEDIATE SCHOOL EDUCATION. (1973-74), 3 credits.

This course is designed to introduce in-service teachers to the concept of the junior high and the intermediate school and to the role of

these unique school units in American education. Consideration will be given to the philosophy, functions, and total program of these schools, including curriculum, guidance, personnel, plant, and administration.

EDUCATION 567. INSTRUCTION. (Summer Only), 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.

EDUCATION 585. ADMINISTRATION AND SUPERVISION IN EARLY CHILDHOOD EDUCATION. (Summer Only), 3 credits.

This course is designed for individuals who may be responsible for the administration and supervision of educational programs for children under six years of age. The various aspects of early childhood education are studied in relationship to budgeting, staff development, personnel problems, and the planning for adequate facilities. *Prerequisite: Written permission of instructor and Head of the Department.*

EDUCATION 603. PHILOSOPHY OF EDUCATION. (II in Alternate Years and Alternate Summers), 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.

EDUCATION 607. SECONDARY SCHOOL CURRICULUM AND Co-CURRICULUM. (I and Summer), 3 credits.

The principles and forms of curriculum organization with appraisal of such curriculum patterns as the subject-matter curriculum, the correlated, fused, core and experience curriculum are included in this course. Also considered are techniques for reorganizing the curriculum; leadership in curriculum development, and participation of teachers in curriculum improvement. *Prerequisite: Ed. 360 or equivalent. (Formerly Education 512)*

EDUCATION 609. THE ELEMENTARY SCHOOL CURRICULUM. (I and Summers), 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 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. *Prerequisite: Ed. 360 or equivalent. (Formerly Education 591)*

EDUCATION 611. EDUCATIONAL CHANGE. (1972-73), 3 credits.

The purpose of this course is to enable the student to acquire skills, understanding and attitudes which are essential to effective involvement

in educational change. Group behavior, organizational theory, leadership behavior, and the diffusion of innovation are considered in relationship to educational change.

EDUCATION 612. ADVANCED CURRICULUM THEORY IN EARLY CHILDHOOD EDUCATION. (I), 3 credits.

A study in depth of early childhood education programs. Emphasis will be placed on current research and contemporary programs for young children, especially those related to the educationally deprived. *Prerequisite: Education 509 or Education 510.*

EDUCATION 616. PRACTICUM IN EARLY CHILDHOOD EDUCATION. (Summer 1972), 3 or 6 credits.

Supervised teaching experience with preschool children. Emphasis on planning and executing creative learning activities based on observation and study of young children. A minimum of four hours per week in classroom involvement is required in addition to seminar meetings. *Prerequisite: Ed. 509, 510 and 612 or equivalent.*

EDUCATION 619. SEMINAR IN EARLY CHILDHOOD EDUCATION. (II), 3 credits.

A consideration of current issues and problems in early childhood education. Opportunity for the advanced student to pursue individual investigations of research or to develop projects related to early childhood education. *Prerequisite: Education 630.*

EDUCATION 620. COMPARATIVE EDUCATION. (II in Alternate Years and in Alternate Summers), 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 development which brought about progress.

EDUCATION 630. RESEARCH METHODS IN EDUCATION. (II and Summers), 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.

EDUCATION 640. THE FUNDAMENTALS OF EDUCATIONAL ADMINISTRATION. (I and Summer 1972), 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. *Prerequisite: Nine hours of graduate study in education or the permission of the instructor.*

EDUCATION 642. PUBLIC SCHOOL RELATIONS. (1973-74), 3 credits.

This course explores the relationships among public school administrators, instructional personnel, the community, and other social agencies. Specific attention is given to effective school personnel programs and to the establishment and maintenance of effective school community relations. *Prerequisite: Ed. 640.*

EDUCATION 647. THE ELEMENTARY SCHOOL PRINCIPAL.
(II), 3 credits.

This course relates various aspects of public school administration to the unique problems of elementary school administration. Patterns of elementary school organization are studied. The role of the elementary school principal is explored in relationship to educational and social change. *Prerequisites: Ed. 640 and 650.*

EDUCATION 648. THE SECONDARY SCHOOL PRINCIPAL.
(1973-74), 3 credits.

The essential aspects of secondary school administration are identified and explored. Specific attention is given to the role of the secondary school principal as an administrator and instructional leader. *Prerequisites: Ed. 640 and 650.*

EDUCATION 649. INTERNSHIP FOR PRINCIPALS. (1973-74), 6-12 credits.

This course is designed to allow prospective elementary and secondary school principals to gain practical experience in applying educational theory to daily problems encountered by public school principals. The specific activities included in the internship will be determined by the needs of the student. (Amount of credit given will be determined by the amount of experience acquired, but no more than 6 hours can be counted toward a degree program.)

EDUCATION 650. SUPERVISION OF INSTRUCTION.
(II and Summer), 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. *Prerequisite: Nine hours of graduate study or the permission of the instructor.*

EDUCATION 656. SEMINAR IN ELEMENTARY EDUCATION.
(1972-73), 3 credits.

This course enables students to engage in intensive study of selected problems in elementary education. Research findings are reviewed and educational theory is explored in relationship to current problems and issues. *Prerequisite: Ed. 609 or the permission of the instructor.*

EDUCATION 658. DIAGNOSTIC AND REMEDIAL TECHNIQUES IN READING. (Summers), 3 credits.

In this course various types of reading difficulty will be studied. The major emphasis will be upon diagnosis and remediation. Everyone will be expected to diagnose several subjects who are having difficulty in reading and write reports of their findings with recommendations for therapy. *Prerequisite: Three semester hours in Ed. 502, 506 or equivalent (Formerly Education 507).*

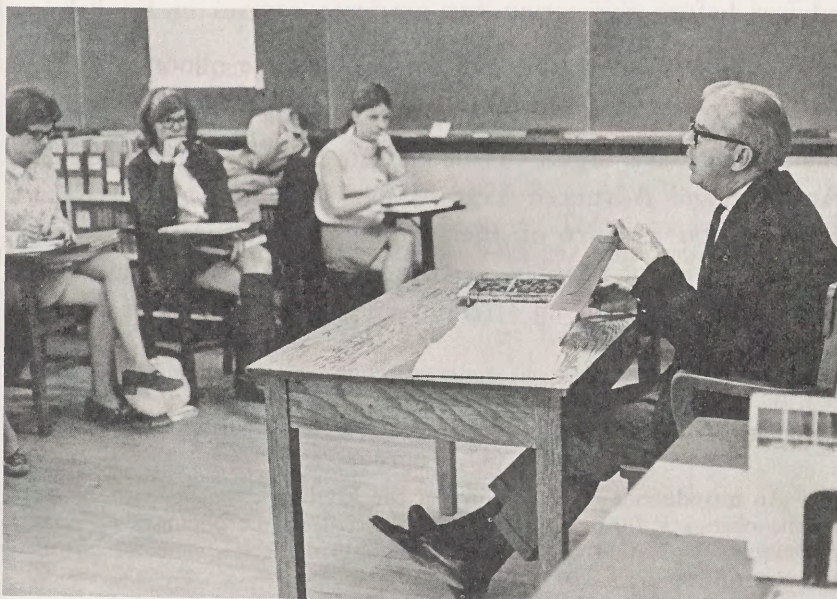
EDUCATION 660. PRACTICUM IN DIAGNOSTIC AND REMEDIAL TECHNIQUES IN READING. (Summers), 3 credits.

This course will be a logical continuation of Education 658. Each student will be assigned several subjects to diagnose, and for whom he is to plan and carry out a corrective program of reading therapy.

EDUCATION 680. 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. *Reading and Research* may be done only in the major field of study. *Prerequisite: Ed. 630 or its equivalent, and the written permission of the adviser and department head.*

EDUCATION 700. THESIS. 6 credits.



ENGLISH

DR. McMURRAY, *Head of the Department*

The Department of English Language and Literature offers both the *Master of Arts* degree with a major in English and the *Master of Arts in Education* degree with a major in English.

The minimum requirement for the *Master of Arts* degree is thirty (30) hours of graduate credit in English. The minimum requirement for the *Master of Arts in Education* degree is twenty-one (21) hours of graduate credit in English and nine (9) hours in Education as recommended by the Department of Education. A student may fulfill six (6) of his required hours by writing a thesis. All students are required to take English 618 (Bibliography and Methods of Research) and to pass a comprehensive examination. Completion of the third year of a college foreign language course with a grade of "C" or above or passage of a reading examination in a foreign language is also a requirement for the *Master of Arts* degree.

A student must plan a program of study with his English adviser before registering for graduate courses in English.

The minimum requirement for a graduate minor in English is twelve (12) hours of graduate credit in English.

Students are urged to submit scores for both the General Aptitude and Advanced Test sections of the Graduate Record Examination as part of their application to graduate school. When this is not possible, a student must take the Examination the first time it is given after his application for graduate work has been accepted.

ENGLISH 501. GROWTH AND STRUCTURE OF THE ENGLISH LANGUAGE. (I), 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.

ENGLISH 510. SPECIAL AUTHORS SEMINAR. (1973-74), 3 credits.

An intensive study of a major English or American author or of a selected group of authors.

ENGLISH 512. SPECIAL TOPIC SEMINAR. (II), 3 credits.

A study of a literary school, movement, genre, or of some other significant literary topic.

ENGLISH 520. MODERN LITERARY CRITICISM. (1973-74), 3 credits.

A survey of the nature and development of literary criticism from Eliot to the present.

ENGLISH 550. MODERN DRAMA. (1973-74), 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.

ENGLISH 560. CURRENTS OF THOUGHT IN EARLY RENAISSANCE. (I), 3 credits.

The awareness of history and human possibility from Erasmus's *In Praise of Folly* to Shakespeare's *Richard III*.

ENGLISH 572. CONTEMPORARY APPROACHES TO ENGLISH LINGUISTICS. (Summer, 1974), 3 credits.

A course designed for teachers who desire to familiarize themselves with the basic ideas and procedures in the various approaches to the "New English." Special attention is paid to the utility of these approaches in the classroom.

ENGLISH 590. STUDIES IN OLD ENGLISH. (Summer, 1973), 3 credits.

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

ENGLISH 601. SHAKESPEARE. (II), 3 credits.

A study of selected plays by Shakespeare. The choice of plays will vary in different years. *Prerequisite: An undergraduate course in Shakespeare.*

ENGLISH 610. MEDIEVAL IDEAS AND CULTURE. (1973-74), 3 credits.

The troubadour poets and traveling scholars, comedy in drama, courtly poetry, with Chaucer's *Troilus* and *The Pearl* studied as the culminating expression of Medieval culture.

ENGLISH 612. MAJOR AMERICAN AUTHORS SEMINAR. (II), 3 credits.

An intensive study of a major American author or of a selected group of authors.

- a. Seminar in Poe, Hawthorne, Melville. 3 credits.
- b. Seminar in Emerson, Thoreau, Whitman. 3 credits.
- c. Seminar in American Realism. 3 credits.

ENGLISH 616. THE DRAMA TO SHAKESPEARE. (1974-75), 3 credits.

A study of the evolution of the drama from its religious beginnings to the development of the public theater of Elizabethan England.

ENGLISH 618. BIBLIOGRAPHY AND METHODS OF RESEARCH.
(I), 3 credits.

An introduction to scholarly materials, procedures, and techniques, including scholarly writing.

ENGLISH 620. STUDIES IN RESTORATION AND EIGHTEENTH CENTURY LITERATURE. (I), 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.

ENGLISH 630. STUDIES IN ENGLISH LITERATURE IN THE VICTORIAN PERIOD. (II), 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.

ENGLISH 631. STUDIES IN AMERICAN ROMANTICISM. (I), 3 credits.

A concentrated examination of selected authors, such as Poe, Hawthorne, Emerson, Thoreau, Melville, and Whitman.

ENGLISH 632. STUDIES IN AMERICAN REALISM.
(Summer, 1973), 3 credits.

A concentrated examination of such authors as Mark Twain, Howells, Stephen Crane, and Henry James.

ENGLISH 635. ELIZABETHAN AND JACOBAN DRAMA.
(1973-74), 3 credits.

The development of English drama from the morality plays to 1642.

ENGLISH 640. STUDIES IN CONTEMPORARY LITERATURE.
(1973-74), 3 credits.

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

ENGLISH 660. STUDIES IN SEVENTEENTH-CENTURY LITERATURE.
(1973-74), 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.

ENGLISH 670. STUDIES IN THE POETRY OF THE ROMANTIC MOVEMENT.
(1973-74), 3 credits.

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

ENGLISH 680. READING AND RESEARCH. 3 credits.

Opportunity is given the individual student for supervised reading and research in the literature of his special interest. *Reading and Research* may be done only in the major field of study.

ENGLISH 700. THESIS. 6 credits.



FOREIGN LANGUAGES

DR. RAUCH, *Head of the Department*

The Department of Foreign Languages offers graduate courses in Spanish which are designed to supplement and broaden the student's knowledge in this field. A program of graduate study is offered which can apply to a minor in Spanish for those pursuing the *Master of Arts in Education* degree with a major in Education. The minimum requirement for a minor in Spanish is twelve (12) semester hours of graduate credit in Spanish. The student will plan his program with the help of the Head of the Department.

MINOR IN SPANISH

Semester Hours

Minimum Requirements 12

SPANISH 515. Spanish Poetry and Drama of
the 19th Century

SPANISH 516. Spanish Novel of the 19th
Century

SPANISH 620. Contemporary Spanish
Theater

SPANISH 630. Contemporary Spanish Novel

Background course essential for students in teaching: 3

EDUCATION 539. Teaching Foreign Language
in the Secondary School

COURSE OFFERINGS

SPANISH 515. SPANISH POETRY AND DRAMA OF THE 19TH CENTURY.
(I), 3 credits.

A study of the main currents of Spanish poetry and drama of the 19th Century from the Romanticists to the *alta comedia* and the realistic dramas of Galdos. Given in Spanish.

SPANISH 516. SPANISH NOVEL OF THE 19TH CENTURY.
(II), 3 credits.

A study of the main currents in the Spanish novel of the 19th Century with special emphasis on the works of Valera, Pereda, Galdos, and others. Given in Spanish.

SPANISH 620. CONTEMPORARY SPANISH THEATER.
(I or II), 3 credits.

A study of Spanish drama from Benavente and the Generation of 1898 to the contemporary theater of García Lorca, Casona, Buero Vallejo, and others. Given in Spanish.

SPANISH 630. CONTEMPORARY SPANISH NOVEL. (I or II), 3 credits.

A study of the development of the novel during the present century from the Generation of 1898 to the contemporary works of Cela, Gironella, Delibes, and others. Given in Spanish.



GENERAL SCIENCE

DR. IKENBERRY, *Dean of the School of Natural Sciences*

The School of Natural Sciences offers an interdepartmental minor in general science only for those graduate students who as elementary school teachers are planning a program leading to the *Master of Science in Education* degree with a major in Education. The minimum requirement for a minor in general science is twelve (12) semester hours of graduate credit to include Biology 505 (Natural History), Geology 510 (Earth Science), and Physics 505 (Matter and Energy). The courses are designed to enable the elementary school teacher to become acquainted with at least three areas of science from which practical techniques as well as theoretical foundations may be learned.

BIOLOGY 505. NATURAL HISTORY. (Summer only), 3 credits.

An integrated course in field biology designed to acquaint students with local plants and animals in both terrestrial and aquatic habitats. (A course restricted to graduate students majoring in elementary education with a minor in general science. Cannot be counted toward any degree with a major in biology.)

GEOLOGY 510. EARTH SCIENCE. (Summer only), 3 credits.

A course designed to familiarize the graduate student with the basic aspects of most branches of geology. Emphasis is on materials and structure of the earth and how rock units are shaped into their scenic expression. May not be used to satisfy undergraduate geology requirements. (This course was offered formerly as Physical Science 510.)

GEOLOGY 535. PALEOBIOLOGY (I, 1973), 3 credits.

The biology and fossil history of invertebrate animals is emphasized. The origin of life, its history (evolution), systematics, and ecology (paleoecology) are considered—Protista through Bryozoa (Ectoprocta). *Prerequisite: One year of either geology or biology (or consent of instructor).*

GEOLOGY 540. PALEOECOLOGY. (II, 1974), 2 credits.

A continuation of Geology 535. Brachiopods through vertebrates. *Prerequisite: Geol. 535.*

PHYSICS 505. MATTER AND ENERGY. (Summer, 1973), 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. (This course was offered formerly as Physical Science 520.)

SCIENCE 512. NATURAL RESOURCE CONSERVATION.
(Summer only), 3 credits.

The following areas of conservation will be investigated: mineral resources, marine life, soil and water conservation, forestry and wildlife management. (This course is sponsored by the Virginia Resource-Use Education Council for teachers in the public schools of Virginia.)



HISTORY

DR. DINGLEDINE, *Head of the Department*

The Department of History offers the *Master of Arts* degree with a major in History and the *Master of Arts in Education* degree with a major or a minor in History.

The program leading to the *Master of Arts* degree with a major in History offers an opportunity for concentration in four fields of History: United States History Prior to 1877; United States History Since 1877; Early Modern European History (1648-1815); and Modern European History (Since 1815). Admission requirements are: completion of at least twenty-four (24) semester hours of undergraduate credit in History, or their equivalent, with approximately a "B" average or higher; and submission of satisfactory scores on the Graduate Record Aptitude Test and the Advanced Test in History.

Minimum requirements for the *Master of Arts* degree with a major in History are: (1) thirty (30) semester hours of graduate credit in History, which may include not more than six (6) semester hours of graduate credit in allied Social Science fields, and which shall include the writing of a thesis for six (6) semester hours of graduate credit or the writing of a Master's essay in partial satisfaction of the requirements of a selected 600 level course; (2) one winter semester or two summer sessions of residence; (3) completion of the third year of a college modern foreign language course with a grade of "C" or above, or passage of French 205-206 or German 205-206, or equivalent, or passage of a reading examination in one foreign language; and (4) passage of an oral comprehensive examination on one of the four fields of concentration in History offered by the Department. No more than eighteen (18) semester hours may be taken in one field of concentration.

Admission requirements for the program leading to the *Master of Arts* degree in Education with a major or minor in History are: completion of at least twenty-four (24) semester

hours of undergraduate credit in History for the major or at least eighteen (18) semester hours for the minor, or their equivalent, with approximately a "B" average or higher; and submission of satisfactory scores on the Graduate Record Aptitude Test.

Minimum requirements for the *Master of Arts in Education* degree with a major in History are: twenty-one (21) semester hours of graduate credit in History, which may include History 700 (Thesis) for six (6) semester hours of graduate credit; or fifteen (15) semester hours of graduate credit in History and six (6) semester hours of graduate credit in approved courses in Social Science (Economics, Geography, Political Science, and Sociology). The minor consists of nine (9) semester hours of graduate credit in appropriate courses in Education.

The minor in History in the *Master of Arts in Education* degree requires a minimum of twelve (12) semester hours of graduate credit in History.

Prerequisites for enrolling in graduate courses in History are: History 233-234, United States History, or equivalent, for courses in United States or Latin-American History; and History 255-256, History of Civilization, or equivalent, for courses in European, African, or Asian History.

HISTORY 501. WORKSHOP IN HISTORY: PROBLEMS IN UNITED STATES HISTORY. (Summer Only), 3 credits.

An investigation of the origins, development and interpretations by historians of selected current social, economic, and political problems, such as minority groups, federal-state relations, democratic politics, and isolationism vs. internationalism. *Open only to students enrolled in the nine-hour Institute for Social Studies Teachers.*

HISTORY 520. UNITED STATES HISTORY, 1763-1800. (I), 3 credits.

An interpretive study of the political, economic, social, and cultural history of the United States from the French and Indian War through the Federalist period.

HISTORY 525. UNITED STATES HISTORY, 1800-1850. (I), 3 credits.

An interpretive study of the political, economic, social and cultural history of the United States from the election of Jefferson to the Compromise of 1850.

HISTORY 530. UNITED STATES HISTORY, 1877-1919.

(I or II), 3 credits.

An interpretive study of United States History from Reconstruction through World War I. Special attention is given to the nation's emergence as an industrial and urban society and as a world power, and to third party and reform movements of the late 19th and early 20th centuries.

HISTORY 531. RECENT UNITED STATES HISTORY. (I or II), 3 credits.

An interpretive study of the United States since World War I, emphasizing the changing roles of the national government in domestic affairs and of the United States in its world relations.

HISTORY 545. LATIN AMERICA AND THE UNITED STATES.

(I), 3 credits.

An examination of the diplomatic relations between Latin America and the United States from the era of the Latin American revolutions for independence to the present. Emphasis will be placed on the Monroe Doctrine and its extensions, and the development of the Pan-American system.

HISTORY 546. MEXICO, CENTRAL AMERICA, AND THE CARIBBEAN.

(I; 1973-74), 3 credits.

A regional study of the history of Central American and Caribbean nations with special emphasis given to Mexico from the Revolution of 1910 to the present.

HISTORY 559. MODERN FRANCE. (I), 3 credits.

Topical studies in French history from the fall of Napoleon I to the present. The July monarchy, the second empire, the revolutions of 1830, 1848, 1870, 1945 and 1958, and the four republics are given special emphasis. The roles of the Franco-Prussian war, the two world wars of the twentieth century and colonialism in French history are also stressed.

HISTORY 562. MODERN GERMANY, 1918-PRESENT.

(I or II; 1973-74), 3 credits.

An advanced lecture, reading, discussion course on 20th century Germany. Readings and discussion will center around the aftermath of World War I, Weimar Germany, the rise of Nazi Germany, the Third Reich, World War II, and the founding of West and East Germany in the post-war world.

HISTORY 565. TWENTIETH CENTURY BRITAIN. (II), 3 credits.

An examination of the major themes of British history in the twentieth century. The course will include material on political, social, eco-

nomic, diplomatic, and imperial topics from the pre-World War I decade down through the post-World War II decade.

HISTORY 575. SOVIET RUSSIA. (II), 3 credits.

Modernization of Russia and the Soviet Union from the 1917 Revolution to the present with an emphasis on significant political, economic, social, and cultural developments. A study in comparative history; the Soviet experience examined in the context of 20th century global achievements.

HISTORY 576. RUSSIA AND THE BALTIC. (I), 3 credits.

A topical, regional history approach will be utilized to trace the growth of the Russian position in northeastern and northcentral Europe from the Early Middle Ages to present times. Although Russian development will be emphasized, other Baltic powers, such as Sweden, Poland, and Germany, will be given due consideration.

HISTORY 580. WEST AFRICA. (I or II; 1973-74), 3 credits.

An introduction to that part of Africa from which the blacks of America trace their ancestry. The area covered includes the basins of Lake Chad and the Senegal, Niger, Gambia, Volta, Sanaga, Ogooue, Congo and Cuanza rivers. The whole sweep of history from neolithic times through the independence movements of the fifth and sixth decades of the twentieth century is examined. This course is designed especially for those teaching Black History or Black Studies in secondary schools.

HISTORY 585. SOUTHEAST ASIA. (I or II), 3 credits.

A history of mainland Southeast Asia from Burma to Vietnam, Indonesia, and the Philippines, with emphasis on the influences of Indian and Chinese civilization, the impact of European colonial rule, the rise of nationalism, the gaining of independence, and the post-war political developments.

**HISTORY 601. UNITED STATES DIPLOMATIC HISTORY, 1800-1890.
(I or II; 1973-74), 3 credits.**

A study of diplomatic activities and foreign relations of the United States in the nineteenth century, with special attention to the development of principles of foreign policy and the significance of foreign affairs in United States history.

**HISTORY 602. UNITED STATES DIPLOMATIC HISTORY, 1890-1941.
(I), 3 credits.**

An intensive study of American diplomatic activities and foreign relations from the 1890's to the eve of World War II, with emphasis on the development of imperialism, isolationism, and disarmament, as well as the diplomacy of the Spanish-American War, World War I, and the pre-World War II period.

HISTORY 610. THE ERA OF FRANKLIN D. ROOSEVELT. (II), 3 credits.

An intensive study of the period 1933-1945 as a dividing line in American economic, social, and political development. Attention is also given to the emergence of the Grand Alliance of World War II and of Cold War problems. Evaluations of FDR and of the New Deal era by contemporaries and by historians are carefully examined.

HISTORY 620. THE NEW SOUTH. (I or II; 1973-74), 3 credits.

A general survey of the economic, political, religious, cultural, and social development of the Southern region since 1877, with emphasis on the various problems confronting the South in its development.

HISTORY 624. COLONIAL AMERICA. (I or II; 1973-74), 3 credits.

An interpretive study of the colonial period of American history to 1763. Special attention is given to social and cultural life, the imperial system, and the political heritage of colonial America.

HISTORY 625. EUROPE IN THE ERA OF THE FRENCH REVOLUTION. (II), 3 credits.

This course is concerned with vital philosophical, social, and economic aspects of the age of the democratic revolutions. Special attention is given to an interpretive study of the Enlightenment, to the historiography of the French Revolution, and to the career of Napoleon.

HISTORY 626. EUROPE IN THE AGE OF LOUIS XIV, 1638-1715. (I or II; 1973-74), 3 credits.

Although Louis XIV's France will be its focal point, this course will examine the main currents which molded European society in the seventeenth-century. Classical France, the growth of absolutism and constitutionalism, the impact of science and religion, the crisis of the European mind and the effects of war and popular revolts upon Baroque society will be some of the themes examined.

HISTORY 630. EUROPE IN THE ERA OF WORLD WAR I. (I or II), 3 credits.

A study of the first World War as a pivotal event in the history of the modern world with special emphasis on the war's origins and its shattering effect on late 19th century European civilization. Attention will also be given to the conduct of the war and to the making of the peace settlement.

HISTORY 640. EUROPE IN THE ERA OF WORLD WAR II. (I or II), 3 credits.

A study of the Second World War with emphasis on its origin and aftermath. Attention will be given to such topics as the rise of the totalitarian state, interwar diplomacy, the conduct of the war, and the advent of the Cold War.

HISTORY 655. THE BALKANS. (I or II), 3 credits.

A study in Balkan nationalism, both internally with respect to the various countries directly concerned, and within the framework of the international rivalries between Russia, the Ottoman Empire, Germany, the Hapsburg Monarchy, Great Britain, and the United States at different times in the area from the seventeenth century to the present.

HISTORY 660. INTELLECTUAL HISTORY OF MODERN EUROPE AND THE UNITED STATES. (I), 3 credits.

Main currents in European and American thought from the 17th century to the present. Scientific and esthetic trends will be dealt with, but the main emphasis will be on political and social theory. Students will have considerable opportunity to pursue topics of their own choosing.

HISTORY 665. SOUTH AMERICAN REPUBLICS.
(I or II; 1973-74), 3 credits.

Historic development of the continent with special attention to selected nations since the early national period of the nineteenth century.

HISTORY 670. TWENTIETH CENTURY CHINA. (I or II), 3 credits.

This course will examine in depth the main course of the developments that led to the final collapse of Imperial China, the abortive experiments in republicanism, the triumph of the communists, and the development of China under Mao Tse-tung.

HISTORY 680. READING AND RESEARCH. 3 credits.

Opportunity is offered the individual student for reading and research in an area of history of special interest to him. This course is open only to students majoring in history. Approval must be obtained from the Head of the Department.

HISTORY 700. THESIS. 6 credits.

HOME ECONOMICS

DR. ROWE, *Head of the Department*

The Department of Home Economics offers graduate courses which are designed to supplement and broaden the students' knowledge in this field. A program of graduate study is offered which can apply to a minor in Home Economics for those pursuing the *Master of Science in Education* degree with a major in Education. The minimum requirement for a minor in Home Economics is twelve (12) semester hours of graduate credit in Home Economics.

HOME ECONOMICS 510. FAMILY FINANCIAL MANAGEMENT.
(On Demand) 3 credits.

Managerial approaches to financial problems of families in contemporary society. Factors influencing decisions on acquiring and using income. Concepts and techniques related to consumer credit, savings and investment, insurance, home ownership, and estate programming.

HOME ECONOMICS 520. WORLD NUTRITION NEEDS AND FOOD RESOURCES. (On Demand) 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.

HOME ECONOMICS 521. SEMINAR IN NUTRITION AND DIETETICS.
(On Demand) 1 credit.

This is a course designed to up-date the dietitian who wishes to re-enter the profession or has entered into some phase of dietetics and feels the need for newer knowledge in nutrition and dietetics. It will cover the current understanding in metabolism and the role of the nutrients as they apply to normal and modified nutrition. *Prerequisite: H.E. 180 or equivalent.*

HOME ECONOMICS 540. CLOTHING CONSTRUCTION TECHNIQUES.
(On Demand) 3 credits.

The newer techniques in both custom and fast methods of clothing construction are studied. Emphasis is placed on fittings, underlinings, and finishing details. Garments are constructed incorporating the techniques studied. *Prerequisite: H.E. 210 or its equivalent.*

HOME ECONOMICS 550. ADVANCED PROBLEMS IN HOME FURNISHINGS.
(On Demand) 3 credits.

A review and interpretation of the major housing problems facing families today. Special emphasis will be given to trends in house planning, materials, and furnishings.

HOME ECONOMICS 590A. SEMINAR IN OCCUPATIONAL TRAINING—
FOOD SERVICE. (On Demand) 1 credit.

The theory and practical application of food service training as used in teaching vocational occupational food service courses in the high schools. *Prerequisite: H.E. 140 or equivalent.*

HOME ECONOMICS 590B. SEMINAR IN CONSULTING DIETETICS.
(On Demand) 1 credit.

Areas of concern to the consulting dietitian will be studied: in-service and pre-service education, communications and human relations, diet planning, food purchasing, quantity and quality food production, sanitation, and equipment and layout. *Prerequisite: Senior or graduate in dietetics.*

HOME ECONOMICS 590C. SEMINAR IN APPLIED NUTRITION.
(On Demand) 1 credit.

An in-depth investigation of new advances in human nutrition and diet therapy. *Prerequisite: H.E. 180, 380, 484 or equivalent.*

HOME ECONOMICS 590D. OCCUPATIONAL WORKSHOP—CHILD CARE.
(On Demand) 1 credit.

The theory and practical application of child care as used in teaching vocational occupational courses in the high school in preparing persons for employment in child care services. *Prerequisite: H.E. 300 or equivalent.*

HOME ECONOMICS 590E. SEMINAR IN DIETETICS—FOOD AND ITS
RELATION TO HEALTH.
(On Demand) 1 credit.

A study of the factors which influence food habits and their modification. Consideration of food acceptance, meanings of food, physiological aspects, effects of illness, dietary planning, and changing food habits. *Prerequisite: H.E. 180 or equivalent.*

HOME ECONOMICS 590F. SEMINAR IN DIETETICS—NUTRITION
EDUCATION. (On Demand) 1 credit.

An investigation of methods of teaching nutrition, of nutrition education materials, and of pilot projects. Review of motivation and learning as applied to nutrition. *Prerequisite: H.E. 180 or equivalent.*

HOME ECONOMICS 590G. OCCUPATIONAL WORKSHOP—HOME FURNISHINGS. (On Demand) 1 credit.

The theory and practical application of home furnishing training as used in teaching vocational occupational home furnishing courses in the high schools. *Prerequisite: H.E. 210 or equivalent.*

HOME ECONOMICS 590H. MONEY MANAGEMENT EDUCATION. (On Demand) 1 credit.

This course will examine several approaches to money management education. Programmed spending for basic needs and the use of discretionary income will be considered. *Prerequisite: H.E. 320 or equivalent.*

HOME ECONOMICS 590I. SEMINAR IN DIETETICS—GERIATRIC NUTRITION. (On Demand) 1 credit.

A study of the nutritional needs of the older person. Ways of meeting these needs during health and illness and an investigation of geriatric institutional feeding practices. *Prerequisite: H.E. 180 or equivalent.*

HOME ECONOMICS 590J. SEMINAR IN DIETETICS—Convenience Foods (On Demand) 1 credit.

The use, planning, preparing and presentation of convenience foods in the institution food service. *Prerequisite: H.E. 363 or equivalent.*

HOME ECONOMICS 590K. SEMINAR IN DIETETICS—Institutional Equipment and Layout (On Demand) 1 credit.

New trends in equipment and layout for dietary departments in institutions. *Prerequisite: H.E. 463 or equivalent.*

HOME ECONOMICS 610. NEW DEVELOPMENTS IN FOODS. (On Demand) 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. 140 or its equivalent.*

HOME ECONOMICS 639. SEMINAR IN TEXTILES. (On Demand) 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 of specific consumer needs. Problems in construction involving principles of new fabric use. Study of production and distribution. Field trips. *Prerequisite: H.E. 290 or its equivalent.*

HOME ECONOMICS 679. SEMINAR IN VOCATIONAL HOME ECONOMICS EDUCATION. (On Demand) 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. 400 or its equivalent.*

HOME ECONOMICS 680. SEMINAR IN SUPERVISION OF STUDENT
TEACHERS IN VOCATIONAL HOME
ECONOMICS. (On Demand) 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.*



MATHEMATICS

DR. SANDERS, *Head of the Department*

The graduate program of the Department of Mathematics is planned to meet the needs of four groups of students: (1) those preparing to teach mathematics, especially in high schools and junior colleges; (2) those preparing for nonteaching professions or vocations in which mathematics plays an important part; (3) those who want to supplement study in other fields with a program in mathematics; and (4) those who are attracted to mathematics as a major scholarly pursuit, including those who plan eventually to work toward a doctor's degree in mathematics.

The Department of Mathematics offers both the *Master of Science in Education* degree with a major in mathematics and the *Master of Science* degree with a major in mathematics.

The minimum requirement for the *Master of Science in Education* degree with a major in mathematics is twenty-one (21) semester hours of graduate credit in mathematics and nine (9) semester hours of graduate credit in education. This must include at least fifteen (15) semester hours of courses numbered 600 or above (in mathematics, education, or both). The minimum requirement for the degree must include at least one course in algebra, at least one course in analysis, and at least one course in geometry or topology. The choice of electives is subject to the approval of the Head of the Department. It will be possible for all but three semester hours for this degree to be completed in three summer sessions.

The minimum requirement for the *Master of Science* degree with a major in mathematics is thirty (30) semester hours of graduate credit in mathematics. This must include at least fifteen (15) semester hours of courses numbered 600 or above. The minimum requirement for the degree must include at least one course in algebra, at least one course in analysis, and at least one course in geometry or topology. The choice of electives is subject to the approval of the Head of the Department. No

minor is required for this degree. A thesis in mathematics is an option which may be elected by the student.

Graduate students planning a program leading to the *Master of Science in Education* degree with a major in education may minor in mathematics with a minimum requirement of twelve (12) semester hours of graduate credit in mathematics. This must include one course in analysis, one in algebra, and one in geometry or topology.

MATHEMATICS 506. MATHEMATICAL STATISTICS. (I or II), 3 credits.

Sampling distributions; point and interval estimation; tests of hypothesis; regression and correlation; design and analysis of experiments.

MATHEMATICS 510. ADVANCED CALCULUS I. (I), 3 credits.

A rigorous treatment of fundamental concepts of the calculus, further topics from the calculus of functions of one variable, calculus of real functions of finitely many real variables. *Prerequisite: At least two semesters of calculus.*

MATHEMATICS 511. ADVANCED CALCULUS II. (II), 3 credits.

Continuation of Mathematics 510.

MATHEMATICS 515. HISTORY OF MATHEMATICS. (I or II), 3 credits.

A study of sources and growth of mathematical ideas and principles from earliest times to the present, with emphasis on the influence of mathematics on the development of civilization.

MATHEMATICS 520. FOUNDATIONS OF EUCLIDEAN GEOMETRY. (II), 3 credits.

A study of the structure and content of Euclidean geometry from an advanced standpoint.

MATHEMATICS 525. NUMERICAL ANALYSIS. (I or II), 3 credits.

Error analysis, interpolating functions, roots of equations by successive approximations, iterative methods for solving simultaneous linear equations, and programming. *Prerequisite: Math. 385 (or the consent of the instructor).*

MATHEMATICS 530. ABSTRACT ALGEBRA. (I or II), 3 credits.

A study of groups, rings, integral domains, and fields.

MATHEMATICS 535. TOPOLOGY I. (I or II), 3 credits.

Introduction to general and point set topology.

MATHEMATICS 550. THEORY OF NUMBERS. (I or II), 3 credits.

Topics in numbers theory including divisibility properties, integral solutions of equations, congruences, prime numbers, arithmetic functions, and number theoretic functions.

MATHEMATICS 600. FOUNDATIONS OF MATHEMATICS.
(Summer, 1973), 3 credits.

This is an introductory study of the logical structure of mathematics. The axiomatic method will be illustrated by developing the Peano theory of numbers.

MATHEMATICS 610. REAL VARIABLES I. (1973-74), 3 credits.

Topics in real analysis including measure and integration theory.
Prerequisite: Math. 510 and 511 or equivalent.

MATHEMATICS 611. REAL VARIABLES II. (1973-74), 3 credits.
Continuation of Mathematics 610.

MATHEMATICS 615. HISTORY OF MODERN MATHEMATICS.
(Summer, 1973), 3 credits.

A study of selected topics in the history of mathematics since the seventeenth century.

MATHEMATICS 620. TOPICS IN GEOMETRY.
(Summer, 1973), 3 credits.

A study of the relationships among different geometries using both synthetic and algebraic methods. The axiomatic structure of synthetic projective geometry; analytic projective geometry.

MATHEMATICS 625. TOPICS IN ALGEBRA. (1972-73), 3 credits.
Vector spaces, linear transformations, and matrices.

MATHEMATICS 636. TOPOLOGY II. (1972-73), 3 credits.
Continuation of Mathematics 535.

MATHEMATICS 645. ALGEBRA I. (1973-74), 3 credits.

Theory of algebraic structures such as groups, rings, Euclidean domains, unique factorization domains. *Prerequisite: Math. 350 or equivalent.*

MATHEMATICS 646. ALGEBRA II. (1973-74), 3 credits.
Continuation of Mathematics 645.

MATHEMATICS 650. DIFFERENTIAL EQUATIONS.
(Summer, 1972), 3 credits.

General theory of ordinary differential equations including existence and uniqueness theorems, introduction to partial differential equations. *Prerequisite: Math 510 and 511 or equivalent; a first course in differential equations is desirable but not essential.*

MATHEMATICS 655. DIFFERENTIAL GEOMETRY.
(Summer, 1972), 3 credits.

Introduction to modern differential geometry, including a modern treatment of topics from classical differential geometry. *Prerequisite: Math. 510 and 511 or equivalent, and some knowledge of linear algebra.*

MATHEMATICS 660. COMPLEX VARIABLES I. (1972-73), 3 credits.

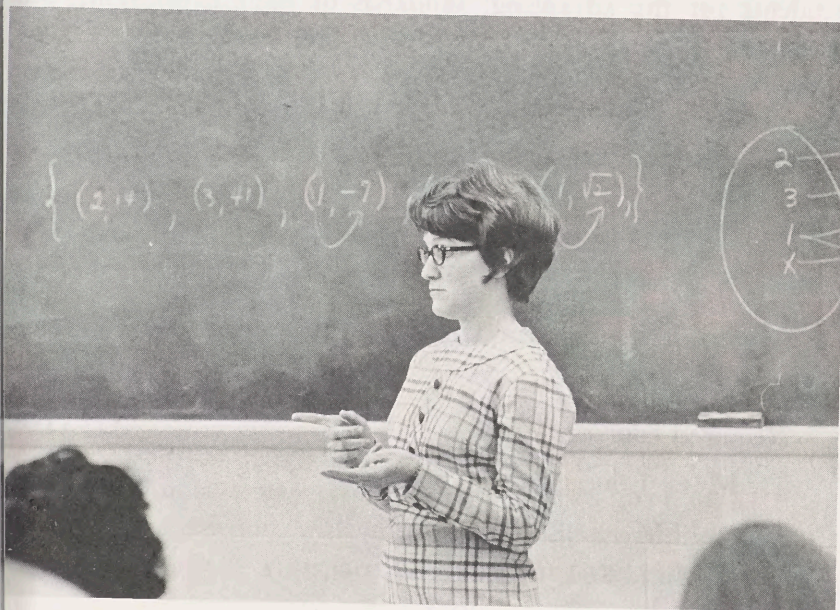
Classical theory of functions of a complex variable. *Prerequisite or corequisite: Math 510 or equivalent.*

MATHEMATICS 661. COMPLEX VARIABLES II. (1972-73), 3 credits.
Continuation of Mathematics 660.

MATHEMATICS 680. READING AND RESEARCH. 3 credits.

Opportunity is given the individual student for supervised reading and research in areas of his special interest. *Reading and Research* may be done only in the major field of study.

MATHEMATICS 700. THESIS. 6 credits.



MUSIC

DR. OHLSSON, *Head of the Department*

The Department of Music offers a program of graduate study leading to the *Master of Arts in Education* degree with a major in Music. The minimum requirement for a major in Music is fifteen (15) semester hours of graduate credit in Music and the writing of a thesis, or twenty-one (21) semester hours of graduate credit in Music; and a minor of nine (9) semester hours in Education chosen from the graduate courses recommended by the Education Department.

Graduate students planning a program of study leading to the *Master of Arts in Education* degree with a major in Education may minor in Music with a minimum requirement of twelve (12) semester hours of graduate credit in Music.

Students electing to major in the Department of Music will be expected to have completed an undergraduate major in Music, and those electing to minor, an undergraduate minor in Music.

The specific aim of the Music Department is to prepare its students for the advancing standards of their profession. Students are directed into advanced-level courses which serve their individual needs, enabling them to meet this challenge. These courses are combined into flexible, balanced programs which include music and music education, research and study, and applied music.

The Music Department is a member of the National Association of Schools of Music.

Minimum requirements for a music *major*

	<i>Semester Hours</i>
Required courses	11-13
1. Music Education 610 or 613	3
2. One of the following:	
Music 561, 562 or 563	3

Semester Hours

3. One of the following with the approval of the music department adviser:

Music 502, 510, 526, 527, 545, 605, Music
Education 610, 611, or 613 3
(*not to include course selected to satisfy
requirement under number 1*)

4. Applied Music: 511, 512, 513, 514 2-4
Electives 10 or 8

Selected, according to student's interests, from other music courses listed.

Students may elect graduate courses given in conjunction with the Virginia State Music Camp at Massanetta Springs not to exceed a total of six semester hours (see course description).

Minimum requirements for a music *minor*

Required courses 6

1. Music Education 610 or 613 3
2. One of the following with the approval of the music department adviser:

Music 561, 562 or 563

or

Music 502, 510, 526, 527, 545, 605, or
Music Education 610 or 613 3
(*not to include course selected to satisfy
requirement under number 1*)

Electives 6

Selected from other music courses listed.

Students may elect graduate courses given in conjunction with the Virginia State Music Camp at Massanetta Springs not to exceed a

total of six semester hours (see course description).

MUSIC 502. INSTRUMENTAL MATERIALS AND TECHNIQUES.
(I or II or Summer); 3 credits.

A study of the problems, materials, and techniques of teaching instrumental music in the high school, with emphasis on orchestra.

MUSIC 510. CHORAL MATERIALS AND TECHNIQUES.
(I or II or Summer); 3 credits.

A study of the problems, materials, and techniques of teaching choral music in the high school.

MUSIC 511, 512, 513, 514. APPLIED MUSIC.
(I or II or Summer); 1 credit.

Four semester hours of credit in applied music—piano, voice, organ, or an orchestral instrument—may be offered toward the Master's degree. Graduate students are required to study applied music, and must accumulate a minimum of two and not more than four hours in this area.

MUSIC 521. MUSIC OF THE CHURCH.
(I or II or Summer); 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 522. MASTER CLASS IN PIANO.
(I or II or Summer); 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 526. ADVANCED CONDUCTING (CHORAL AND INSTRUMENTAL).
(I or II or Summer); 3 credits.

Refinement of baton technique.

Score reading. Specific problems selected from standard works. Practical experience with choral and instrumental groups. *Prerequisite:* Mus. 327-328 or equivalent.

MUSIC 527. INSTRUMENTAL TECHNIQUES.
(I or II or Summer); 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 541. MODERN HARMONY AND COMPOSITION.
(I or II or Summer); 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 542. MODERN HARMONY AND COMPOSITION.
(I or II or Summer); 3 credits.

A sequel to Music 541. One course may be taken without the other and either may be elected first.

MUSIC 545. INSTRUMENTATION. (I or II or Summer); 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 561. MUSIC OF THE BAROQUE AND CLASSICAL PERIODS.
(I or II or Summer); 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 preclassical Viennese composers; Gluck, Haydn, Mozart, Beethoven.

MUSIC 562. MUSIC OF THE ROMANTIC PERIOD.
(I or II or Summer); 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 563. TWENTIETH-CENTURY MUSIC.
(I or II or Summer); 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.

MUSIC 605. ANALYTICAL STUDIES IN MUSIC LITERATURE.
(I or II or Summer); 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 forms as a whole. Finally the study will view each work as a product of a definite aesthetic concept.

MUSIC 680. READING AND RESEARCH. 3 credits.

An opportunity for the individual music major student to do supervised reading and research in a special interest area in music or music education.

MUSIC 700. THESIS. 6 credits.

MUSIC EDUCATION 501. SUMMER WORKSHOP. June 19-25, 1972;
1 credit.

Teachers who attend the Virginia Music Workshop and Camp at Massanetta Springs and who devote a minimum of 30 hours to classes, study, and observation may earn one semester hour of graduate credit at Madison College. This credit may be used for certificate renewal or may apply toward the Master's degree. No more than six hours may be considered towards the advanced degree and these may be a combination of credits from this workshop and the Music Education 571-574 summer programs. Since Music Education 501 and 571-574 involve the Virginia Music Camp activities, these courses may be taken concurrently.

MUSIC EDUCATION 571. TOPICS IN CHORAL TECHNIQUES AND
LITERATURE. (June 19-30, 1972); 2 credits.

An opportunity for the student to select a topic of special interest in the field of choral music. Available only in the summer session as described below.

MUSIC EDUCATION 572. TOPICS IN INSTRUMENTAL TECHNIQUES AND
LITERATURE. (June 19-30, 1972); 2 credits.

An opportunity for the student to select a topic of special interest in the field of instrumental music. Available only in the summer session as described below.

MUSIC EDUCATION 573. TOPICS IN PEDAGOGY OF MUSIC THEORY
AND LITERATURE. (June 19-30, 1972);
2 credits.

An opportunity for the student to select a topic of special interest in the field of teaching theory and music literature. Available only in the summer session as described below.

MUSIC EDUCATION 574. TOPICS IN ELEMENTARY SCHOOL MUSIC.
(June 19-30, 1972); 2 credits.

An opportunity for the student to select a topic of special interest in the field of elementary music. Available only in the summer session as described below.

Teachers who attend the Virginia Music Workshop and Camp at Massanetta Springs through Madison College may earn a total of six semester hours of graduate credit by participating for three summers. In addition to the week of camp activities the student will spend the following week on the Madison College Campus in individual research and in seminars under the daily supervision of members of the graduate faculty in the Music Department. A student must select a different area of research interest in each of three summer sessions from the four courses listed above. It will be advisable for each student to have determined his area of interest and possible research topics prior to camp registration on June 19. At this registration, a representative from the Madison College Music Department will be available for the purpose of discussing and approving the selected field and research topic of each student. Dormitory and dining-hall facilities will be available for the week on the campus. Graduate tuition is \$25.00 per credit hour and fees are \$10.00. A graduate application fee of \$10.00 is payable once only.

MUSIC EDUCATION 610. RESEARCH AND TRENDS IN MUSIC
EDUCATION. (I or II or Summer); 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 611. THE SUPERVISION AND ADMINISTRATION OF
MUSIC. (I or II or Summer); 3 credits.

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

MUSIC EDUCATION 612. PROJECTS IN MUSIC EDUCATION.
(I or II or Summer); 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 EDUCATION 613. SEMINARS: PRINCIPLES AND PRACTICES IN
MUSIC EDUCATION. (I or II or Summer);
3 credits.

This course deals with broader concepts in music education in developing a coordinated and continuous program, and in examining methods of instruction.

PHYSICAL AND HEALTH EDUCATION

DR. CRAWFORD, *Head of the Department*

The graduate program in physical and health education leading to the *Master of Science in Education* degree is designed to promote competency in teaching and administration, to improve the quality and understanding of research, and to provide advanced instruction in specialized areas.

Major: A minimum of twenty-one (21) semester hours is required for a major. Courses are to be selected in consultation with the adviser in accordance with the purposes of the student. The selection must include nine (9) semester hours distributed as follows:

Semester Hours

A. Required:

Physical Education 510.	Principles of Motor Learning	3
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B. At least one of the following courses:

Physical Education 550.	Research Techniques in Physical Education	3
Physical Education 620.	Administration of Physical and Health Education	3
Physical Education 630.	Issues and Problems in Physical Education	3

C. At least one of the following courses:

Physical Education 520.	Advanced Coaching	3
Physical Education 530.	Contemporary Trends and Theories in Dance	3
Physical Education 540.	Physical Education in Elementary Schools	3

Minor: A minimum of twelve (12) semester hours is required for a minor. Courses must be selected with the approval of the minor adviser in accordance with the purposes of the student. The selection must include:

Physical Education 510. Principles of Motor
Learning. 3 credits.

PHYSICAL EDUCATION 501. WORKSHOP IN PHYSICAL EDUCATION
(Summer only). 3 credits.

An intensive study of one aspect of physical education that is of current concern to physical educators in the field.

PHYSICAL EDUCATION 506. DIRECTION AND PERFORMANCE OF DANCE
REPERTOIRE. (By Demand) 3 credits.

Experiences in the direction and technical training of dance companies, ensembles, and repertory groups, and in the performing of dance roles choreographed by dance faculty, artists-in-residence, or advanced students.

PHYSICAL EDUCATION 507. PRACTICUM IN CHOREOGRAPHY.
(By Demand) 3 credits.

Experiences in choreography for solo, duet, and small groups, culminating in the presentation of a completed dance utilizing the modern, ballet, jazz, or folk idioms.

PHYSICAL EDUCATION 510. PRINCIPLES OF MOTOR LEARNING.
(Summer, 1972).

Principles and theories of learning motor skills and their applications in teaching and coaching physical education activities.

PHYSICAL EDUCATION 520. ADVANCED COACHING. (I, 1972), 3 credits.

Principles, techniques, and procedures basic in the coaching of all sports; coaching techniques in specific individual and team sports are emphasized.

PHYSICAL EDUCATION 530. CONTEMPORARY TRENDS AND THEORIES
IN DANCE. (II, 1973), 3 credits.

Investigation through directed readings and studio experiences of current theories and trends in dance as applicable to dance in education, performance, choreography and research.

- PHYSICAL EDUCATION 540. PHYSICAL EDUCATION IN THE
ELEMENTARY SCHOOLS.
(Summer, 1972), 3 credits.

The planning, conducting, and supervising of the physical education program in the elementary schools. Special emphasis is given to newer concepts in physical activities for children.

- PHYSICAL EDUCATION 550. RESEARCH TECHNIQUES IN PHYSICAL
EDUCATION. (I, 1972), 3 credits.

Techniques for problem solving leading to skill in the initiation, conduct, and interpretation of research. Particular emphasis is given to laboratory procedures in movement analysis, physiology of exercise, and motor learning as well as historical and descriptive methods.

- PHYSICAL EDUCATION 610. EVALUATION AND MEASUREMENT IN
PHYSICAL AND HEALTH EDUCATION.
(II, 1973), 3 credits.

A study of available tests of physical fitness, motor ability, sports skills, and health knowledge and behaviors. Experience is provided in the use of the tests and in the interpretation of data.

- PHYSICAL EDUCATION 620. ADMINISTRATION OF PHYSICAL AND
HEALTH EDUCATION.
(Summer, 1972), 3 credits.

Investigation of specific problems and new developments in the administration of health education, physical education, and athletic programs, including such factors as new equipment, budgeting, crowd control, standards of competition, and changes in curriculum.

- PHYSICAL EDUCATION 630. ISSUES AND PROBLEMS IN PHYSICAL
EDUCATION. (I, 1972), 3 credits.

A study of the philosophical and cultural determinants of practices and problems in physical education. Possible solutions to problems and techniques for influencing professional behavior are discussed.

- PHYSICAL EDUCATION 640. PREVENTION AND CARE OF ATHLETIC
INJURIES. (II, 1973), 3 credits.

Emphasis is placed on conditioning and practices which will prevent athletic injuries. Care and treatment of common injuries are included.

- PHYSICAL EDUCATION 680. READING AND RESEARCH. 3 credits.

Directed reading in designated areas and in areas of specialized interest. Investigation, research, and reporting.

- PHYSICAL EDUCATION 700. THESIS. 6 credits.

Prerequisite: Physical Education 550 or equivalent.

HEALTH 501. WORKSHOP IN HEALTH EDUCATION. (Summer only)
3 credits.

An intensive investigation of one of the major current health problems such as sex education, drug abuse or environmental health.

HEALTH 510. HUMAN SEXUALITY. (Summer, 1972), 3 credits.

An interdisciplinary team approach is used to study the many specific components of human sexuality as they particularly relate to the physical, social, and emotional health of children, adolescents, and adults. Such topics as physical and sexual changes during adolescence, abortions and contraceptives are discussed.

HEALTH 550. RECENT DEVELOPMENTS IN HEALTH.
(Summer, 1973), 3 credits.

A survey of recent developments and trends in medical and paramedical programs and topics.

HEALTH 680. READING AND RESEARCH. 3 credits.

Directed reading in designated areas of specialized interest. Investigation, research, and reporting.



PHYSICS

DR. WELLS, *Head of the Department*

The graduate program in the Department of Physics is intended to accomplish the following three objectives: (a) increase the competence of present and future physics teachers in the subject matter of physics; (b) improve their teaching skills; and (c) provide opportunity for students to participate in the research program.

The Department offers a major or minor in the *Master of Science in Education* program. The major program includes twenty-one (21) semester hours of physics and nine (9) semester hours of education, while the minor requires twelve (12) semester hours of physics and eighteen (18) semester hours of education.

All graduate students majoring in physics are required to complete Physics 510 (Theoretical Physics) and Physics 520 (Classical Mechanics). Other courses in physics to complete the required twenty-one (21) semester hours must be approved by the student's major adviser.

PHYSICS 505. MATTER AND ENERGY. (Summer, 1973), 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.

PHYSICS 510. THEORETICAL PHYSICS. (I), 3 credits.

Mathematical development of theories and problems in mechanics, thermodynamics, wave motion, electricity, magnetism, optics, and modern physics. This course is especially designed to provide the necessary flexibility for students of varying backgrounds and levels of preparation who may wish to enter the graduate program.

PHYSICS 520. CLASSICAL MECHANICS. (II), 3 credits.

Classical mechanics through Lagrangian and Hamiltonian formulation of Newton's laws; particle and rigid body motion; variational principle. Topics also include small oscillations, canonical transformation, and relativistic mechanics.

PHYSICS 530. EXPERIMENTAL NUCLEAR PHYSICS.
(Summer, 1974), 3 credits.

Topics will include abundance and composition of nuclei, nuclear forces, natural radioactivity, decay series, interactions of radiations with matter, transmutations and artificial radioactivity. Studies of the detection and measurement of radiations will be made in the laboratory. Properties of the neutron will be examined using a 4 Ci Pu-Be isotope neutron source.

PHYSICS 540. SOLID STATE PHYSICS. (I, 1972), 3 credits.

Forces between atoms; crystal structure; lattice vibrations and thermal properties of solids; free electron theory of metals; band theory of solids; semi conductors; dielectrics.

PHYSICS 610. QUANTUM MECHANICS. (II, 1973), 3 credits.

A basic course in quantum mechanics including a short review of atomic structure. Topics to be covered include uncertainty principle, Schrodinger equation, operators, eigenfunctions, potential wells, harmonic oscillator, hydrogen atom, perturbation theory.

PHYSICS 620. ADVANCED ELECTRONICS. (Summer, 1973), 3 credits.

Micro waves, masers and lasers, pulse techniques and electronic instrumentation will be studied. This course will include laboratory work.

PHYSICS 630. EXPERIMENT DESIGN. (Summer Only), 3 credits.

Emphasizes developing of techniques in literature search, experiment design and analysis of data.

PHYSICS 640. ELECTRODYNAMICS. (Summer Only), 3 credits.

A study of electrostatics: electron theory of dielectrics, permeability and polarization. The theory of magnetism: magnetic fields, induced emfs, ferromagnetic materials and magnetic circuit. Special emphasis on application of Maxwell's equations: radiation and propagation of electromagnetic waves, reflection, refraction, diffraction and dispersion.

PHYSICS 645. MATHEMATICAL PHYSICS. (II, 1973), 3 credits.

This course is designed to acquaint the physics student with some of the mathematical topics useful in solving important physical problems. Topics covered include vector analysis, general curvilinear coordinates, ordinary and partial differential equations, matrices, and complex analysis.

PHYSICS 650. THERMAL AND STATISTICAL PHYSICS.
(II, 1973), 3 credits.

The fundamental concepts of heat, the laws of thermodynamics together with the principles of statistical mechanics and the theory of specific heats are discussed.

PHYSICS 660. RECENT DEVELOPMENTS AND ADVANCED TOPICS IN PHYSICS. (II, 1974), 3 credits.

Course is designed to offer opportunity to explore in depth special areas of the student's own choosing. Topic areas will be selected in consultation with adviser and staff.



POLITICAL SCIENCE AND GEOGRAPHY

DR. MYERS, *Acting Head of the Department*

The Department of Political Science and Geography offers graduate courses in Political Science and in Geography designed to broaden knowledge in these fields and to serve those teaching in these subject matter areas.

Graduate students pursuing the *Master of Arts or Science in Education* degree may minor in Political Science by successfully completing twelve (12) semester hours of graduate Political Science credit. Geography 560, Political Geography, may also be applied toward a Political Science minor.

Graduate students pursuing the *Master of Arts in Education* degree with a major in Social Science may concentrate in Political Science. A concentration in Political Science requires nine (9) or twelve (12) semester hours of graduate credit.

Graduate courses in Geography are offered by this department. These courses may be applied to the *Master of Arts in Education* degree.

GEOGRAPHY 560. POLITICAL GEOGRAPHY.
(I or II, 1974-75) 3 credits.

A study of the nation state in its geographic setting. Geographic aspects of international politics will also be discussed, including strategic factors in international relations, supranational political and economic organizations and problems of modernization. (This course may be applied toward a graduate minor in Political Science.)

GEOGRAPHY 580. CULTURAL GEOGRAPHY. (I) 3 credits.

A study of aspects of culture within geographic setting: languages, religion, political organization, pattern of livelihood, settlements, population growth and movement. The interaction of man and his geographic environment will be stressed. (This course may be applied toward a graduate minor in Sociology.)

GEOGRAPHY 590. THE TROPICAL WORLD. (II) 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.

GEOGRAPHY 610. SEMINAR IN ECONOMIC GEOGRAPHY.
(I or II, 1974-75) 3 credits.

This course is designed to acquaint the student with the relationship of geography to the other social sciences. Particular emphasis will be placed on the economic aspects of geography. Students will participate in field trips to selective industrial, commercial, and transportation sites. (This course may be applied toward a graduate minor in Economics.)

GEOGRAPHY 620. SEMINAR IN REGIONAL GEOGRAPHY.
(I, II) 3 credits.

This course is designed to emphasize the relationship of geography to the other social sciences. The course will include the use of maps in the study of regions and regional problems. It will use the published maps in the study of both local and distant regions. The compilation of maps of the state and local regions from statistics and other source materials will be included among the exercises. Included in the course will be a study of how maps should be used in classrooms as well as in research.

POLITICAL SCIENCE 501. WORKSHOP IN FEDERAL GOVERNMENT.
(Summer only, 1974) 3 credits.

This course is designed to reacquaint the student with the functions and operations of various branches of American government. Lectures and demonstrations in the field will include visits to agencies and departments in Washington, D. C.

Enrollment is limited to fifteen students. Because of the field trips, a special non-refundable fee of forty dollars (\$40.00) must be paid *in advance* to the Head of the Department of Political Science and Geography.

POLITICAL SCIENCE 525. POLITICS OF THE DEVELOPING NATIONS.
(I or II, 1973-74) 3 credits.

A study of the problems of political development in the new nations of the world and the concepts and theories for comparative analysis of these nations.

POLITICAL SCIENCE 529. PROBLEMS OF INTERNATIONAL RELATIONS.
(I or II) 3 credits.

An analytical study of international problems dealing with such topics as the United Nations, regionalism, political conflict, international law, nationalism, balance of power, and arms control. Problems may be determined by the exigencies of the contemporary international scene.

POLITICAL SCIENCE 540. PROBLEMS OF AMERICAN NATIONAL GOVERNMENT. (I or II, 1973-74) 3 credits.

This course is designed as an intensive survey of national government in the U. S. with primary emphasis on the current problems facing the U. S. government. Problems to be examined will include those involving the presidency, Congress, and the federal court system.

POLITICAL SCIENCE 550. PROBLEMS OF STATE AND LOCAL
GOVERNMENT. (I or II) 3 credits.

This course will focus attention on the major problems faced by local and state governments. The problems will include political leadership, operation of the courts, police power, fiscal problems, and metropolitan areas and others.

POLITICAL SCIENCE 610. MODERN POLITICAL THEORY. (II) 3 credits.

This course will examine the contributions of political thinkers from Plato to the present with emphasis on the more recent theorists. Among those thinkers to be considered will be Machiavelli, Bodin, Hobbes, Locke, Montesquieu, Rousseau, Burke, Hegel and Marx.

POLITICAL SCIENCE 630. SEMINAR IN STATE AND LOCAL
GOVERNMENT. (Summer only, 1973)
3 credits.

This course is designed to acquaint the student with the functions and operations of the various branches and agencies of state and local government. Lectures and demonstrations in the field will include visits to at least one state capital and to local government offices.

Enrollment is limited to fifteen students. On account of the field trips, a special non-refundable fee of forty dollars (\$40.00) must be paid *in advance* to the Head of the Department of Political Science and Geography.

POLITICAL SCIENCE 640. SEMINAR IN INTERNATIONAL RELATIONS.
(Summer only, 1972) 3 credits.

This course is designed to acquaint the student with the operations of the various branches of our government, which function in the field of International relations. Lectures and demonstrations in the field will include visits to Washington, D. C., and some of the specialized agencies associated with world affairs.

Enrollment is limited to fifteen students. On account of the field trips, a special non-refundable fee of forty dollars (\$40.00) must be paid *in advance* to the Head of the Department of Political Science and Geography.

POLITICAL SCIENCE 650. COMPARATIVE GOVERNMENT. (II) 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 England, France, West Germany, and the Soviet Union.

POLITICAL SCIENCE 680. READING AND RESEARCH. 3 credits.

This course offers the individual student the opportunity for reading and research under faculty supervision in the areas of government which are of special interest to the student.

POLITICAL SCIENCE 695. PRACTICUM IN POLITICAL SCIENCE. (I, II)
3-6 credits.

This course is designed to provide graduate students with an opportunity for practical experience in and direct observation of a political agency. Work-experience (135 hours) will be supervised by an official of the agency to which the student is assigned, and a member of the faculty. An extensive report, based on research in primary source material, theoretical literature, and the student's Practicum experiences, will be required. Students who intend to enroll are requested to notify the Department of Political Science and Geography as far in advance as possible. *Prerequisite: Permission of Instructor.*

POLITICAL SCIENCE 700. THESIS. 6 credits.



PSYCHOLOGY

DR. HANSON, *Head of the Department*

Graduate courses in the Department of Psychology are aimed at extending the scholar's breadth and depth of knowledge in specific content areas, and also at enhancing the student's ability to understand himself, other people, and their relationship in a complex society.

Graduate courses are open to majors in other subject fields, unless prerequisites and limitations are specified in the course descriptions.

GRADUATE PROGRAM TO PREPARE SCHOOL PSYCHOLOGISTS

The graduate program in School Psychology is designed to prepare specialists who are competent psychologists and creative educators to serve the schools of Virginia. While emphasis is placed upon offering graduate students a firm foundation of both psychological content as well as skills and techniques, emphasis is also placed on emerging roles in the field of school psychology. The School Psychology program outlined below prepares school psychologists to perform as psychoeducational diagnosticians. It is viewed as preparation for beginning school psychologists who plan to continue their study beyond this minimal entry level to the profession. (Most school psychologists are prepared at the two year graduate level.)

Students will be required to complete an internship in order to qualify as school psychologists.

Admission requirements for the School Psychology Program include submission of satisfactory scores on the Graduate Record Aptitude Test. Admission to the graduate program in school psychology is based not only on previous records and test results but also on reference questionnaires, and especially upon an interview with a staff member of the program.

The program as outlined below meets the requirements of the State Board of Education for approval as a School Psychologist in the State of Virginia.

Minimum Semester Hour Requirements 39 hours

1. Required Graduate Courses 21 hours

Psychology 600.	Research and Statistical Methods in Psychology
Psychology 625.	The Role of the School Psychologist
Psychology 670.	Group Psychological Tests
Psychology 675.	Individual Intelligence Testing
Psychology 677.	Clinical Techniques of Assessment
Psychology 690.	Internship in School Psychology

2. Fifteen (15) semester hours from the following: 15 hours

Psychology 510.	Advanced Developmental Psychology
Psychology 522.	Advanced Abnormal Psychology
Psychology 610.	Learning Theories
Psychology 620.	Personality Theories
Psychology 626.	Growth and Development During the Elementary Years
Psychology 628.	Advanced Adolescent Psychology
Psychology 648.	Research in Human Development
Psychology 680.	Reading and Research

Special Education 505. Psychoeducational Analysis
in Special Education

Guidance 614. Counseling Theories and
Techniques

("Other electives with adviser's approval.")

3. Three semester hours from the following: (Two years of successful experience as a teacher, supervisor, administrator, or school psychologist may meet the requirements of this area in which case three additional hours must be chosen from the group above.) 3 hours

Education 603. Philosophy of Education

Education 607. Secondary School Curriculum
and Co-Curriculum

PSYCHOLOGY 510. ADVANCED DEVELOPMENTAL PSYCHOLOGY.
(II), 3 credits.

This course presents an overview of the origins and development of behavior extending from the prenatal period through adolescence and maturity. The interrelationships among various aspects of development, e.g., biological, cognitive, personality, social, are delineated.

PSYCHOLOGY 522. ADVANCED ABNORMAL PSYCHOLOGY.
(II, Summer, 1972), 3 credits.

Dealing with the causes, symptoms, dynamics, and leading therapeutic approaches to the neuroses and psychoses, this course attempts to contrast normal behavior with pathological. The course is relevant to the service professions.

PSYCHOLOGY 600. RESEARCH AND STATISTICAL METHODS IN
PSYCHOLOGY. (I), 3 credits.

This course is designed to provide an introduction to research and statistical methods in psychology which may be most useful to psychologists in schools.

PSYCHOLOGY 610. LEARNING THEORIES. (I), 3 credits.

This course is a study of the principles and conditions of behavioristic learning theory. A study is made of recent research contributions.

PSYCHOLOGY 614. LABORATORY STUDY OF THE YOUNG CHILD.
(II), 3 credits.

Designed for professionals who work with children under six, this course deals with methods of studying children in group settings. Major emphasis is on developing adult sensitivity to language, concept formation, and perception of the individual child. A seminar parallels the observation participation requirements, and focuses on related research. Theories of Piaget, Erikson and Sears are covered. Two hour Lab; two hour Seminar. *Prerequisite: Psychology 510 or equivalent.*

PSYCHOLOGY 618. SEMINAR IN SENSITIVITY TRAINING.
(II), 3 credits.

This course covers analysis of attitude organization and change, as well as the relationship between feelings and developing behavior patterns. Observations and supervised participation in nursery school settings are required. The course purpose is to increase sensitivity to developing personalities of young children. *Prerequisite: Permission, Head, Department of Psychology or Instructor.*

PSYCHOLOGY 620. PERSONALITY THEORIES. (I), 3 credits.
(formerly Psychology 520. Personality Dynamics)

This course deals with the major theories of personality and identifies implications of each theory for education, business, medicine, industry, law enforcement, and civic and religious groups.

PSYCHOLOGY 625. THE ROLE OF THE SCHOOL PSYCHOLOGIST.
(I), 3 credits.

This course is designed especially to provide the beginning student in School Psychology with an understanding of the people, issues and responsibilities with which a school psychologist must deal. Special attention is given to the clinical, consultant and prevention roles of the psychologist.

PSYCHOLOGY 626. GROWTH AND DEVELOPMENT DURING THE
ELEMENTARY YEARS. (I), 3 credits.

This course presents a contemporary view of child development with emphasis on major theories, concepts, and research findings. Of primary concern are the origin and development of basic psychological processes, such as, perception, learning, personality, and social development.

PSYCHOLOGY 628. ADVANCED ADOLESCENT PSYCHOLOGY.
(II), 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.

- PSYCHOLOGY 648. RESEARCH IN HUMAN DEVELOPMENT.
(II, Summer, 1972), 3 credits.

This course deals with research related to the principles basic to an understanding of the growth and development of human beings. Research on the dynamics influencing behavior are explored. Techniques for studying behavior are considered and case materials analyzed. *Prerequisite: Psychology 233-234 or equivalent.*

- PSYCHOLOGY 670. GROUP PSYCHOLOGICAL TESTS. (I, Summer, 1972),
3 credits. (formerly Individual and Group Tests)

Primary focus in this course is on the evaluation, interpretation and application of standard group psychological tests. A brief introduction to test construction is included.

- PSYCHOLOGY 675. INDIVIDUAL INTELLIGENCE TESTING.
(II), 3 credits.

This course is designed to acquaint the advanced graduate student in psychology with the classic individual tests of mental ability and to enable the student to develop proficiency in the administration of an individual intelligence test of his choice. Students will be required to administer tests to a minimum of twenty subjects during the course. *Prerequisite: Permission of Instructor.*

- PSYCHOLOGY 677. CLINICAL TECHNIQUES OF ASSESSMENT. (II),
3 credits. (formerly Psychological Assessment)

This course includes administration, interpretation, and integration of data from psychological assessments. Techniques to be included in a screening battery are examined and cover psycholinguistic and perceptual-motor skills, interpersonal relations, emotional dynamics, and achievement. *Prerequisite: Permission of Instructor.*

- PSYCHOLOGY 680. READING AND RESEARCH. 3 credits.

The student is given an opportunity for directed reading and/or research in areas of his special interest. Reading and Research may be done only in the major field of study. *Prerequisite: Permission of Instructor.*

- PSYCHOLOGY 690. INTERNSHIP IN SCHOOL PSYCHOLOGY.
(I, II, Summer), 3 or 6 credits.

The internship provides the advanced graduate student with supervised on-the-job training. The full time experience for six semester hours is equivalent to 350 clock hours of work in one semester. The range of supervised activities cover pupil assessment and interviewing, parent and staff consultation, and involvement in the full range of other daily activities required of school psychologists. *Prerequisite: Completion of required courses in school psychology and/or permission of the program director.*

- PSYCHOLOGY 700. THESIS. 6 credits.

SOCIAL SCIENCE

DR. HINTON, *Dean of the School of Social Sciences*

The School of Social Science offers programs of study leading to the *Master of Arts in Education* degree with a major in Social Science and a minor in Education.

Major—21 credit hours required.

9 credit hours concentration in one Social Science subject to be selected from: Economics, Political Science or Sociology, and

12 credit hours in at least two other Social Science fields.
or

15 credit hours in one Social Science subject to be selected from: Economics, Sociology or Political Science. (Students may take subjects in supporting areas with permission of the advisor).

and

6 credit hours in a thesis.

The School of Social Science also offers several programs in which a student may minor. In order to minor, the student must complete twelve (12) semester hours in any one of the following subjects: Economics, Political Science or Sociology. These courses may be found under the listings of the departments of Business Administration and Economics, Political Science and Geography, and Sociology respectively.

SOCIOLOGY

DR. STONE, *Acting Head of the Department*

The Department of Sociology offers graduate courses which are designed to broaden the students knowledge in this field. The minor program in Sociology which is available for those graduate students pursuing the *Master of Arts or Science in Education* degree requires a minimum of twelve (12) semester hours of graduate credit.

In addition, graduate students pursuing the *Master of Arts in Education* degree with a major in Social Science may concentrate in Sociology. A concentration in Sociology requires nine (9) or twelve (12) semester hours of graduate credit.

SOCIOLOGY 530. THE NEGRO IN AMERICA. (I), 3 credits.

A survey of the history of the Negro in American Society which will provide a background for the examination and analysis of the present role and status of this minority group.

SOCIOLOGY 540. EDUCATIONAL SOCIOLOGY. (I or II), 3 credits.

Analysis of the sociological foundations of education (organization, processes, values, goals, etc.). Emphasis is placed on social climate, groupings, teacher/learner social roles.

SOCIOLOGY 576. THE CONTEMPORARY FAMILY. (I or II), 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. (Home Economics credit will be allowed for this course.)

SOCIOLOGY 580. COMPARATIVE FAMILY SYSTEMS. (II), 3 credits.

The structure and functions of typical families in several areas of the world will be compared and analyzed. Emphasis will be placed on the Russian, Chinese, and American Negro family. Selected primitive family systems will also be reviewed.

SOCIOLOGY 630. SEMINAR IN SOCIAL PROBLEMS.
(Summer Only), 3 credits.

This course is organized to place emphasis on social disorganization and the special areas of breakdown. Contemporary problems will be discussed and recent research reviewed on alcoholism, juvenile delinquency, family problems, social mobility, automation and the critical areas.

SOCIOLOGY 640. SEMINAR IN SOCIAL THEORY.
(Summer Only), 3 credits.

A review of the history of sociology will offer a frame of reference from which students will study the classical works of a variety of sociologists. This course will also provide the participant an opportunity to explore the works of some leading social philosophers and examine comparative social and behavioral concepts.

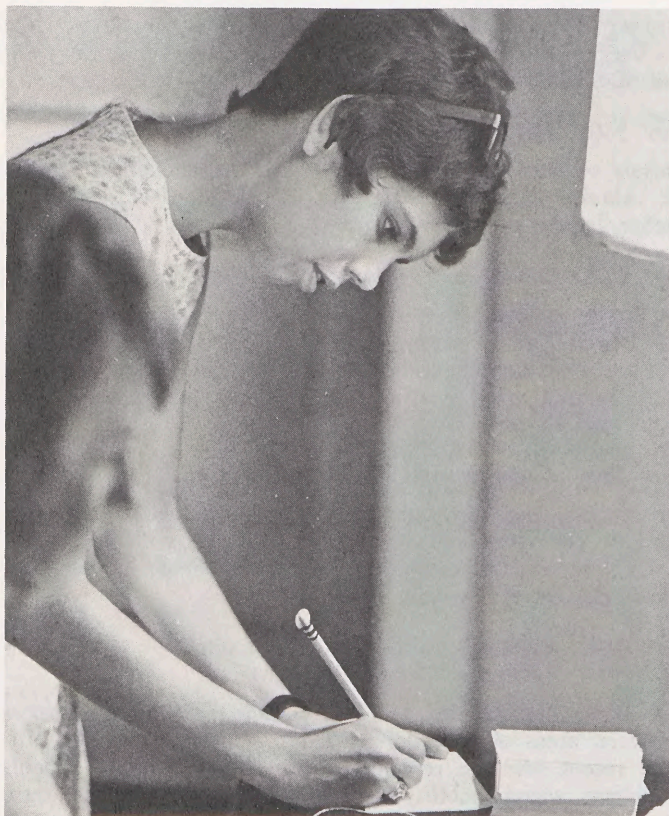
SOCIOLOGY 670. SOCIAL CHANGE. (Summer Only), 3 credits.

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.

SOCIOLOGY 680. READING AND RESEARCH. 3 credits.

Opportunity is offered the individual student for reading and research in the areas of sociology which are of special interest to the student. Approval must be obtained from the Head of the Department.

SOCIOLOGY 700. THESIS. 6 credits.



SPECIAL EDUCATION SERVICES

DR. CHRISTIANSEN, *Head of the Department*

The Department of Special Education Services offers a graduate program which leads to the *Master of Science in Education* degree with a major in Guidance and Counseling. This major, which requires a minimum of thirty (30) semester hours, is designed to prepare students to: (1) meet the requirements of the State Board of Education for qualification as guidance counselors; (2) meet the requirements for performance of counseling services in the community colleges; (3) perform guidance and counseling services in other fields, such as industry or religion. Students preparing for guidance work in the public schools of the State of Virginia must hold the Collegiate Professional Teaching Certificate and have had one or more years of teaching experience. This requirement does not apply to students preparing for employment in community colleges or other fields, such as industry or religion. Students admitted to any of the programs in guidance and counseling must have a minimum of twelve (12) undergraduate hours of education and/or psychology, including a course in Tests and Measurements and a course in Developmental Psychology or its equivalent. The major program in guidance and counseling is outlined below:

Semester Hours

Minimum Requirements	30
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1. Required Courses	21
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Guidance 520.	Guidance Principles and Practices in Education
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Guidance 605.	Occupational and Educational Information
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Semester Hours

- | | | |
|-----------------|---|--|
| Guidance 614. | Counseling Theories
and Techniques | |
| Guidance 626. | Group Techniques
in Guidance | |
| Guidance 650. | Practicum in Guidance
and Counseling | |
| Education 630. | Research Methods in
Education | |
| Psychology 670. | Group Psychological
Tests | |
2. Six (6) semester hours selected from among the following: 6
- | | | |
|-----------------|--|--|
| Guidance 530. | Dynamics of
Mental Health | |
| Psychology 510. | Advanced Develop-
mental Psychology | |
| Psychology 620 | Personality Theories | |
| Psychology 522. | Advanced Abnormal
Psychology | |
| Psychology 628. | Advanced Adolescent
Psychology | |
| Psychology 648. | Research in Human
Development | |
| Psychology 675. | Individual Intelligence
Testing | |
3. Three (3) semester hours selected from among the following: 3
- | | | |
|----------------|-------------|--|
| Education 567. | Instruction | |
|----------------|-------------|--|

Education 658.	Diagnostic and Remedial Techniques in Reading
Guidance 510.	The Case Study in Guidance
Guidance 636.	Personnel Services in Higher Education
Guidance 640.	Organization and Administration of Guidance Programs
Guidance 680.	Reading and Research
Psychology 618.	Seminar in Sensitivity Training
Sociology 630.	Seminar in Social Problems
Special Education 505.	Psychoeducational Analysis in Special Education

The student majoring in Guidance may elect to take Guidance 700 (Thesis) for six (6) of the required thirty (30) hours credit.

GUIDANCE 501. WORKSHOPS IN GUIDANCE. (Summer) 1-3 credits.

Designed to provide a detailed study of a particular topic of interest in guidance. *Prerequisite: Permission of Head of Department.*

GUIDANCE 510. THE CASE STUDY IN GUIDANCE.
(I or II), 3 credits.

A study of the methods used by guidance counselors to gather and analyze information about the individual obtained from all sources. Emphasis in the course is upon application of this information to counseling procedures and techniques.

GUIDANCE 520. GUIDANCE PRINCIPLES AND PRACTICES IN EDUCATION.
(I, II), 3 credits.

A detailed study of the roles of guidance personnel, including teachers, in elementary and secondary schools. Consideration is given to the

interrelationships of these guidance roles, and to the relationship of elementary guidance services to those of the secondary school.

GUIDANCE 530. DYNAMICS OF MENTAL HEALTH.
(I, II), 3 credits.

A detailed study of the personal and social factors which are related to the development of individual mental health and mental illness.

GUIDANCE 605. OCCUPATIONAL AND EDUCATIONAL INFORMATION.
(I), 3 credits.

A survey of the sources of occupational and educational 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 are emphasized.

GUIDANCE 614. COUNSELING THEORIES AND TECHNIQUES.
(II), 3 credits.

This course deals with a study of the philosophy and principles of various schools of counseling, and the techniques employed in the counseling process by each of these schools. *Prerequisite: Guidance 520.*

GUIDANCE 626. GROUP TECHNIQUES IN GUIDANCE.
(II), 3 credits.

A survey of the theories and practices relating to group guidance and counseling. *Prerequisite: Guidance 520.*

GUIDANCE 636. PERSONNEL SERVICES IN HIGHER EDUCATION.
(II), 3 credits.

A detailed study of the personnel services offered in colleges and universities.

GUIDANCE 640. ORGANIZATION AND ADMINISTRATION OF GUIDANCE PROGRAMS. (I or II), 3 credits.

A consideration of the theory, organization, and personnel practices, involved in organizing and administering guidance programs. *Prerequisite: Guidance 520.*

GUIDANCE 650. PRACTICUM IN GUIDANCE AND COUNSELING.
(I, II), 3 credits.

Supervised practicum experiences in counseling are arranged in educational and occupational settings. These experiences emphasize the roles and functions of the Counselor, and his relations with the client and the referring organization. *Prerequisite or corequisite: Guidance 614. Also Prerequisite: Nine hours of coursework in guidance.*

GUIDANCE 680. 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. *Reading and research* must be done in the major field of study.

GUIDANCE 700. THESIS. 6 credits.

SPECIAL EDUCATION 501. WORKSHOPS IN SPECIAL EDUCATION.
(Summer) 1 - 3 credits.

Designed to provide an intensive study of a particular topic in special education. *Prerequisite: Special Education 340.*

SPECIAL EDUCATION 505. PSYCHOEDUCATIONAL ANALYSIS IN SPECIAL EDUCATION. (I), 3 credits.

A study of curricular adjustment procedures as determined by intellectual, social, emotional, and physical data about the individual. *Prerequisite: Special Education 340, Psychology 488.*

SPECIAL EDUCATION 506. REHABILITATION TECHNIQUES IN SPECIAL EDUCATION. (II), 3 credits.

A study of the habilitation and rehabilitation services which are available for the handicapped. The relationship of these services to the educational program is emphasized.

SPECIAL EDUCATION 512. BEHAVIOR MANAGEMENT IN THE CLASSROOM. (II), 3 credits.

An application of behavioral modification techniques to the control of discipline problems in the classroom. The use of these principles as an aid in learning is also stressed.

SPECIAL EDUCATION 514. SEMINAR IN SPECIAL EDUCATION.
(II), 3 credits.

An intensive study of current problems and issues in special education. *Prerequisites: Special Education 340.*

SPECIAL EDUCATION 520. PRACTICUM IN SPECIAL EDUCATION.
(I, II), 3 credits.

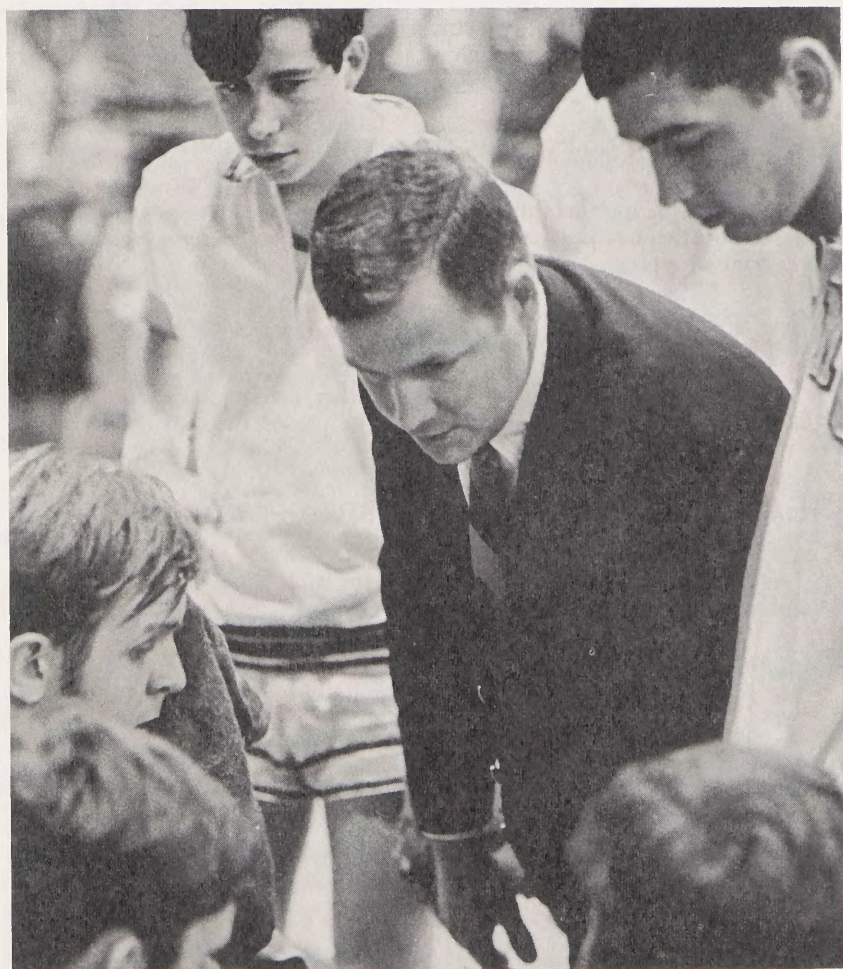
Designed for the student who desires an "internship type" of supervised experience to meet a special or unique need. *Prerequisite: Permission of the Head of the Department.*

SPEECH PATHOLOGY 501. WORKSHOPS IN SPEECH PATHOLOGY.
(Summer) 1 - 3 credits.

Designed to provide a detailed study of a particular topic of interest in speech pathology. *Prerequisite: Permission of Head of Department.*

SPEECH PATHOLOGY 503. SEMINAR IN SPEECH PATHOLOGY.
(I), 3 credits.

A study of the current trends and issues in speech pathology. *Prerequisite: Speech Pathology 214 and permission of instructor.*



SPEECH AND DRAMA

DR. McCONKEY, *Head of the Department*

The Department of Speech and Drama offers graduate courses which are designed to supplement the student's knowledge in various areas including: Drama, Communications, Public Address, and Radio and Television Broadcasting. A program of graduate study is offered which can result in a minor in Speech and Drama for those pursuing the *Master of Science in Education* degree and *Master of Arts in Education* degree. The minimum requirement for a minor in Speech and Drama includes twelve (12) semester hours of graduate studies in the subject areas.

SPEECH 500. SEMINAR IN COMMUNICATION. (I; 1972-73), 3 credits.

Study and research in the broad spectrum of communication arts and sciences. Emphasis upon integrating the various aspects for application to academic and practical use. Consideration of topics relating to drama, public address, broadcasting, and interpersonal communication.

SPEECH 520. SEMINAR IN RHETORIC AND PUBLIC ADDRESS. (II; 1972-73), 3 credits.

Study and research in the philosophical and historical bases of rhetorical theory. Emphasis on the process of rhetoric both as a practical art and as a scholarly method. Consideration of topics relating to the development and practice of rhetoric and public address.

SPEECH 540. SEMINAR IN THEATRE. (I; 1973-74), 3 credits.

Study and research in the aspects of academic and professional theatre. Emphasis upon research methods in solving practical problems of theatrical production. Consideration of topics relating to acting, directing, and technical elements.

SPEECH 548. EXPERIMENTAL THEATRE. (II; 1973-74), 3 credits.

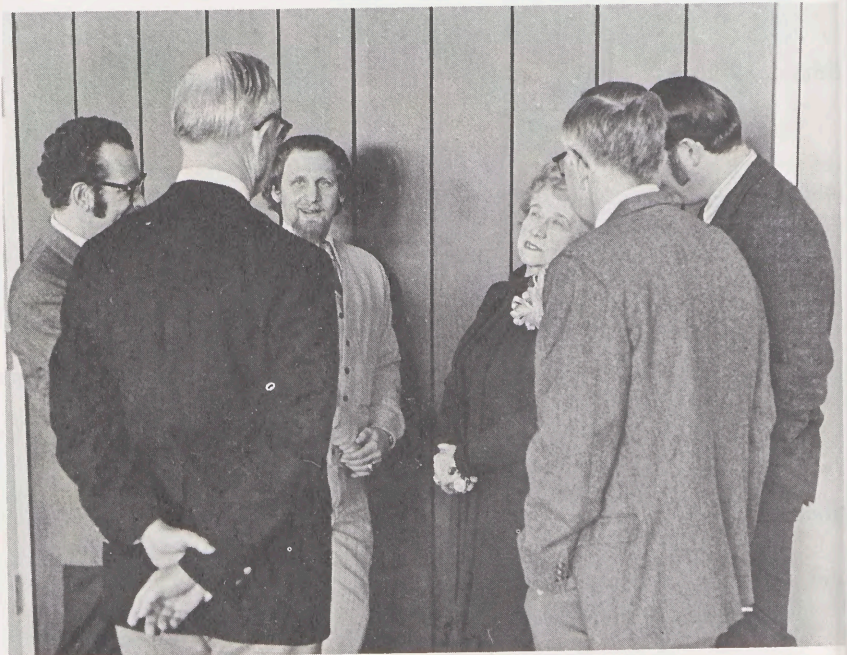
Study of creative and imaginative drama. Emphasis upon motivating and guiding advanced students to a higher degree of aesthetic appreciation for the theatre. Consideration of the relationship of experimental theatre to the traditional theatre.

SPEECH 560. SEMINAR IN BROADCASTING MEDIA.
(II; 1973-74), 3 credits.

Study and research in the history, organization and mechanics of the various media. Emphasis upon the social and artistic roles of the media. Consideration of topics relating to methods of assessing the influence and effectiveness of the broadcasting media.

SPEECH 600. SEMINAR IN TEACHING SPEECH.
(I; 1973-74), 3 credits.

Study and research in the theories and methodologies of teaching speech and drama in the secondary schools. Emphasis upon course development and extra-curricular responsibilities of the teacher. Consideration of materials related to speech, debate and discussion, and drama.



LIBRARY SCIENCE

DR. HABAN, *Head of the Department*

The Department of Library Science offers only some graduate courses designed to increase the competence of present school librarians, and to foster more effective use of library resources by educators in the elementary and secondary schools.

LIBRARY SCIENCE 501. WORKSHOPS IN LIBRARY SCIENCE.
(Summer Only), 3 credits.

Concentrated workshops designed for the continuing professional development of school personnel for more effective provision and utilization of school library services and resources. Each workshop will deal with a topic of current concern, with emphasis on practical methods and projects. *Prerequisite: Collegiate Professional Certificate or permission of Head of Department.*

LIBRARY SCIENCE 510. BUILDING LIBRARY COLLECTIONS.
(I), 3 credits.

Principles and procedures for developing multi-media library collections. Study of reviewing media and bibliographies for print and non-print materials. Developing standards of judgment for selection of materials of quality for depth within subject areas and for breadth of coverage. *Prerequisite: Collegiate Professional Certificate or permission of Head of Department.*

LIBRARY SCIENCE 520. LITERARY ENRICHMENT ACTIVITIES.
(II), 3 credits.

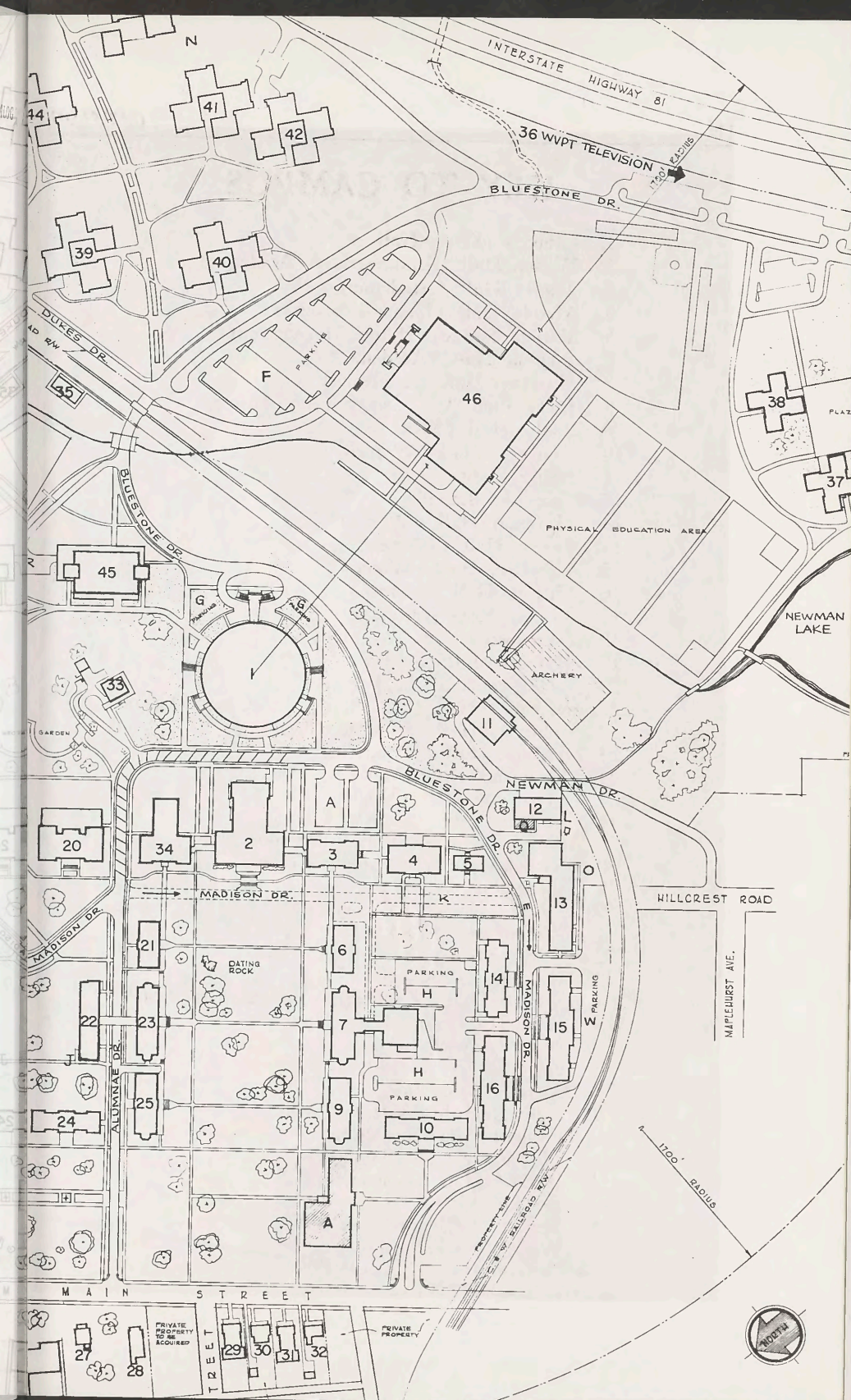
Activities for teachers and librarians for developing the enjoyment of books in elementary and secondary students. Experience in such skills as storytelling, book talks, broadcast programs, creative dramatics and puppetry, and the preparation of annotated book lists. *Prerequisite: Collegiate Professional Certificate or permission of Head of Department.*

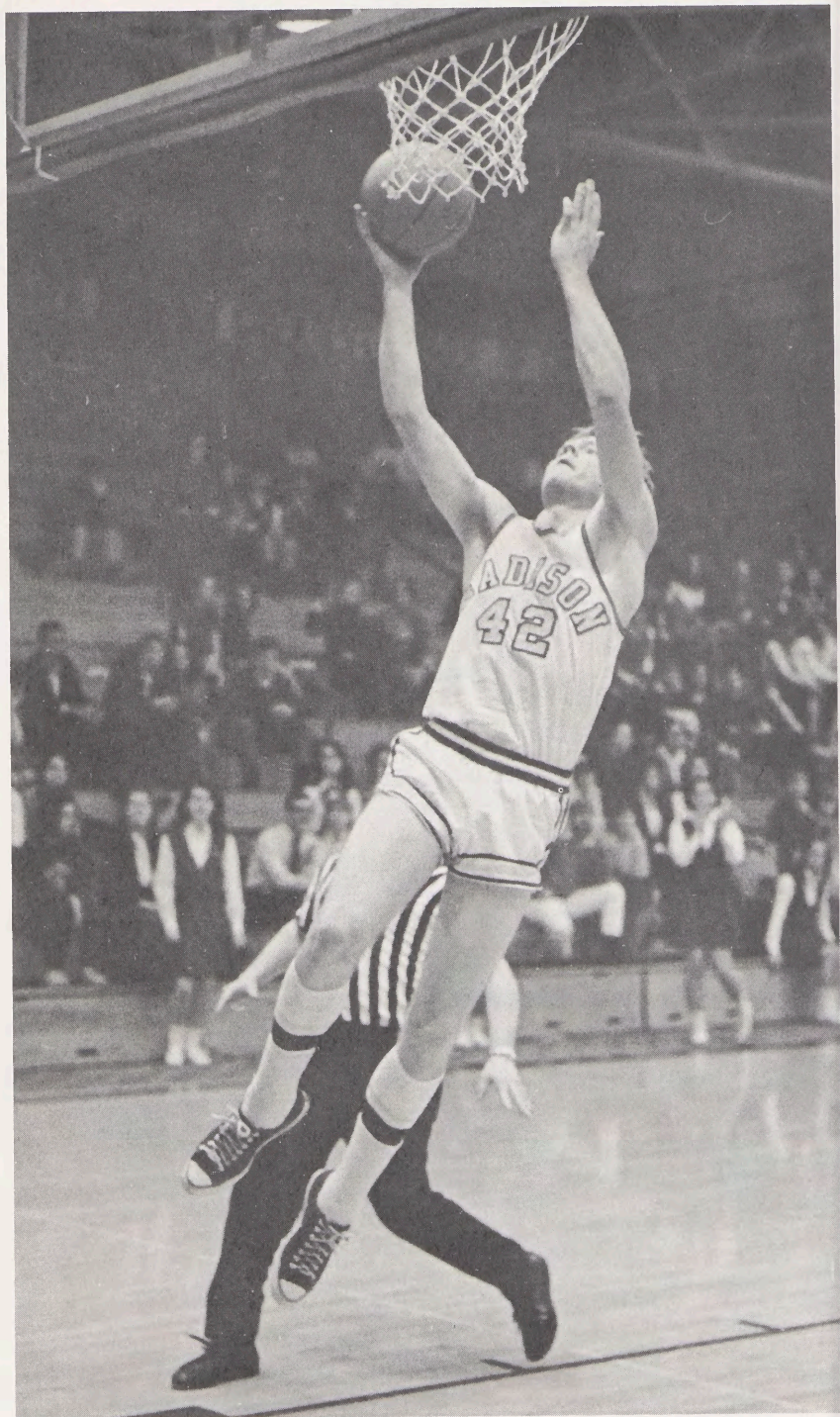
LIBRARY SCIENCE 605. SEMINAR IN SCHOOL LIBRARY ADMINISTRATION. (Summer Only), 3 credits.

A seminar for librarians and educators involving consideration of recent innovations and intensive study of current problems in school librarianship. *Prerequisite: Collegiate Professional Certificate and experience in an elementary or secondary school.*

KEY TO CAMPUS

1. Gibbons Dining Hall
2. Wilson Hall (Administrative Academic)
3. Maury Hall (Academic)
4. Moody Hall (Home Economics)
5. Varner House (Home Management)
6. Jackson Hall (Academic)
7. Harrison Hall (Academic)
8. Duke Fine Arts Center (Art-Music)
9. Ashby Hall (Men)
10. Converse Hall (Women)
11. Boiler Plant
12. Shop and Laundry
13. Hoffman Hall (Women)
14. Logan Hall (Women)
15. Wayland Hall (Women)
16. Gifford Hall (Women)
17. Walter Reed Infirmary
18. Greenhouse
19. Burruss Hall (Science)
20. Madison Memorial Library
21. Alumnae Hall (Student Services-Counseling)
22. Johnston Hall (Faculty Offices)
23. Sheldon Hall (Women)
24. Cleveland Hall (Women)
25. Spotswood Hall (Women)
26. Anthony-Seeger Campus School
27. Baker House (Special Education Center)
28. Nicholas House (Reading Center)
29. Shenandoah (Men)
30. Lincoln House (Women)
31. Wellington (Faculty Housing)
32. Zirkle House (Speech and Drama)
33. Hillcrest (President's Home)
34. Keezell Hall (Academic—Physical Education)
35. Field House (Physical Education)
36. WVPT Television
37. Clyde P. Shorts Hall (Dormitory)
38. Alfred Eagle Hall (Men)
39. Herbert Huffman Hall (Women)
40. Frederikson Hall (Women)
41. Chappellear Hall (Women)
42. Hanson Hall (Women)
43. Dorothy Garber Hall (Women)
44. Agness Dingleline Hall (Women)
45. Warren Student Activities Center
46. Godwin Hall (Physical Education Building)
47. Dormitory (Women)





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For further information concerning graduate study at Madison College write:

Assistant Provost for
Graduate Studies
Madison College
Harrisonburg, Va. 22801

