3-1-1967

Bulletin Madison College, March, 1967

Madison College (Harrisonburg, Va.)

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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, Virginia State Board of Education.


CORPORATE MEMBER OF: American Association of University Women.
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The Visitors of Madison College

RUSSELL M. WEAVER, Rector
HARRISONBURG

MRS. HELEN MUGLER STUART, Vice-Rector
RICHMOND

CHARLES C. BROUN
MARTINSVILLE

WALLACE L. CHANDLER
RICHMOND

MRS. D. KIRK HAMMOND
DECATUR, GEORGIA

BURR P. HARRISON
WINCHESTER

DABNEY S. LANCASTER
MILLBORO SPRINGS

J. LEONARD MAUCK
MARION

THOMAS E. SEBRELL, III
ALEXANDRIA

MRS. EMILY N. SPONG
PORTSMOUTH

G. FRED SWITZER
HARRISONBURG

EXECUTIVE COMMITTEE

G. FRED SWITZER, Chairman
CHARLES C. BROUN
DABNEY S. LANCASTER
RECTOR, member ex officio

RICHARD C. MANDEVILLE, Secretary
Officers of Administration

G. Tyler Miller, B.S., LL.D. .................................................... President
William W. Scott, Ph.D. ...................................................... Dean of the College
James E. Poindexter, Ph.D. ................................................... Associate Dean of the College
Adolph H. Phillips, B.S. ....................................................... Business Manager
Ray V. Sonner, M.Ed. ......................................................... Director of Field Services and Placement
Pauline C. Long, M.A. in Ed. ................................................ Registrar
E. L. Tolbert, Ed.D. ............................................................ Dean of Students
John T. Rice, M.A. ............................................................... Dean of Men
Dorothy S. Garber, B.S. ....................................................... Dean of Women
Elizabeth G. Shafer, M.S. .................................................... Assistant Dean of Women
Fay J. Reubush, M.Ed. ........................................................ Assistant Dean of Women
Patricia C. Dunn, M.S. ........................................................ Assistant Dean of Women
William J. DeLong, M.A. .................................................... Director of Admissions and Student Aid
Richard C. Mandeville, B.A. ................................................. Assistant to the President


Graduate Council

William W. Scott, B.A., M.S., Ph.D., Chairman
J. Edgar Anderson, B.M., M.M.
Charles G. Caldwell, A.B., M.A., Ph.D.
J. Emmert Ikenberry, A.B., M.A., Ph.D.
Louis G. Locke, A.B., M.A., A.M., Ph.D.
William L. Mengebier, B.S., M.S., Ph.D.
James E. Poindexter, A.B., M.A., Ph.D.
Elmer L. Smith, B.S., M.A., D.S.Sc.
The Graduate Faculty

J. Edgar Anderson, Professor of Music. Diploma in Violin and Theory, Muskingum College; B.M., M.M., Cincinnati Conservatory of Music. Pupil of Jean ten Have; Stephan Sopkin.

Charles W. Blair, Associate Professor of Education. B.A., Bridgewater College; M.A. in Ed., Madison College; Ed.D., University of Virginia.

Mary Campbell Brill, Professor of English. A.B., Syracuse University; A.M., Ph.D., Cornell University.

Lester S. Bucher, Professor of Music. B.S., State College, West Chester, Pennsylvania; M.S., University of Pennsylvania; Ed.D., Columbia University.

Charles G. Caldwell, Professor of Psychology. A.B., Roanoke College; M.A., Ph.D., University of Chicago.

William E. Callahan, Associate Professor of Biblical Literature and Philosophy. A.B., Florence State College; B.D., Th.D., New Orleans Baptist Theological Seminary.

Wilbert Chappell, Professor of Chemistry. B.S., Ottawa University; A.M., Ph.D., University of Kansas.

Raymond D. Cool, Professor of Chemistry. B.S., Bridgewater College; M.S., Ph.D., University of Virginia.


Garney L. Darrin, Associate Professor of Education; Director of the Anthony-Seeger Campus School. B.S., M.Ed., Wayne State University; Ed.D., University of Maryland.

Bonnie L. Dessauer, Associate Professor of Education. B.A., M.A., Ph.D., University of Oklahoma.

Z. S. Dickerson, Jr., Professor of Business Education. B.S., Eastern Kentucky State College; M.A. in Ed., Ed.D., University of Kentucky.

Raymond C. Dingledine, Jr., Professor of History. B.A., M.A., Ph.D., University of Virginia.

James F. Ferry, Professor of Biology. A.B., West Virginia Wesleyan College; M.S., West Virginia University; Ph.D., The Ohio State University.
JAMES K. GRIMM, Professor of Biology. B.S. in Ed., Concord College; M.S., Ph.D., University of Tennessee.

CLARENCE R. HAMRICK, Associate Professor of Education. B.S., Hampden-Sydney College; M.S., Ph.D., University of Virginia.

JOHN R. HANSON, Assistant Professor of Mathematics. A.B., Washington and Lee University; Ph.D., Virginia Polytechnic Institute.

J. EMMERT IKENBERRY, Professor of Mathematics. A.B., Bridgewater College; M.A., Ph.D., Cornell University.

MARY A. JACKSON, Associate Professor of History. B.S. in Ed., Madison College; M.S., Ph.D., University of Virginia.

MARIE M. JENKINS, Associate Professor of Biology. B.A., Phillips University; M.S., Catholic University of America; Ph.D., University of Oklahoma.

LOUIS GLENN LOCKE, Professor of English. A.B., Bridgewater College; M.A., George Washington University; A.M., Ph.D., Harvard University.

JOHN T. LYON, JR., Associate Professor of Music. B.S. in Mus. Ed., University of New Hampshire; M.A., Teachers College, Columbia University; Ph.D., Indiana University.

DANIEL MCFARLAND, Professor of History. A.B., University of North Carolina; M.A., Ph.D., University of Pennsylvania.

WILLIAM J. MCMURRAY, Associate Professor of English. B.A., Middlebury College; M.A., University of Illinois; Ph.D., University of New Mexico.

ALMON TURLEY MACE, Professor of Economics. B.S., M.S., Purdue University; Ph.D., George Washington University.

ANDREW J. MAHLER, Professor of English. A.B., Wagner College; M.A., Columbia University; Ph.D., University of North Carolina.

WILLIAM L. MENGEBIER, Professor of Biology. B.S., The Citadel; M.S., Oberlin College; Ph.D., University of Tennessee.

SIEGFRIED S. MEYERS, Professor of Physics. B.S., M.A., Ph.D., New York University.

JOHN P. MUNDY, Professor of Psychology and Guidance. B.A., Bridgewater College; M.A., University of Virginia; Ph.D., George Washington University.

GORDON L. OHLSSON, Professor of Music. B.A., B.M., Hastings College; M.A., Teachers College, Columbia University; Ed.D., University of Michigan.
James E. Poindexter, Associate Dean of the College; Professor of English. A.B., University of North Carolina; M.A., Emory University; Ph.D., University of North Carolina.

Raymond J. Poindexter, Professor of Education. A.B., Randolph-Macon College; M.A., University of Virginia; Ph.D., The Ohio State University.

Dorothy Rowe, Professor of Home Economics. B.S., Madison College; M.S., Ph.D., The Ohio State University.

Bessie R. Sawhill, Associate Professor of English. A.B., Oliver College; A.M., University of Wisconsin; Ph.D., The Johns Hopkins University.

William W. Scott, Dean of the College; Professor of Biology. B.A., M.S., University of Vermont; Ph.D., University of Michigan.

G. Jean Shaw, Associate Professor of Music. B.M., Eastman School of Music, University of Rochester; M.M. in Mus. Ed., University of South Dakota; Ph.D., Catholic University of America.

Alan G. Smith, Associate Professor of Chemistry. B.S., Mount Allison University (New Brunswick); M.S., University of New Brunswick; Ph.D., University of Maine.

Armand V. Smith, Jr., Associate Professor of Mathematics. B.S., M.S., Purdue University; Ph.D., Virginia Polytechnic Institute.

Elmer L. Smith, Professor of Sociology. B.S., Florida Southern College; M.A., Western Reserve University; D.S.Sc., Syracuse University.

Doris V. Stage, Professor of Chemistry. A.B., Miami University, Oxford, Ohio; Ph.D., Iowa State University.


E. L. Tolbert, Dean of Students; Professor of Guidance. B.S., University of Virginia; M.A., The Ohio State University; Ed.D., Columbia University.

Gilbert S. Trelawny, Professor of Biology. B.S., Delaware Valley College of Science and Agriculture; M.S., Ph.D., Lehigh University.

John C. Wells, Professor of Physics. A.B., Colgate University; M.A., Ed.D., Columbia University.

John E. Wood, Associate Professor of History. B.A., University of Virginia; M.A., Ph.D., Tulane University.
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. In action taken by the State Council of Higher Education at its meeting on September 7, 1966, Madison College was authorized to offer the program leading to the Master of Arts degree with a Major in English.

PURPOSE

The graduate program was inaugurated at Madison College originally 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 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 Dean of the College is chairman and the executive officer of the Graduate Council.

DEGREE REQUIREMENTS

Programs of study leading to one of four 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 English), and Master of Science (with a Major in Biology or in Mathematics).

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 for each student by his Student Advisory Committee in conformance with certain specific requirements for the degree. Such programs require the approval of the Graduate Council.

Although the requirements for a graduate degree at Madison College include thirty (30) semester hours credit in formal course work and thesis research, 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 their fields of specialization.

All 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 professional education. A Major and a Minor totaling thirty (30) semester hours is required. Either the Major or the Minor must be taken in the field of professional education. The
A 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. 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, Chemistry, and Mathematics. A Minor is available in each of the above-mentioned departments, in the Department of Home Economics, in the Department of Psychology, and in General Science for those students majoring in professional 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, twenty-four (24) credits of which must be in the major field of study. 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 Department of English Language and Literature. The candidate for the Master of Arts degree must complete a minimum of thirty (30) semester hours of graduate credit. No Minor is required. For the Master of Arts degree with a Major in English a thesis in the major field of study is a specific requirement.

**ADMISSION TO THE GRADUATE PROGRAM**

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

Each applicant must submit an official transcript of all undergraduate and graduate work previously undertaken. Each applicant is also responsible for obtaining three letters of recommendation to be sent directly to the Dean of the College. At least two of these letters
should be prepared by individuals familiar with the applicant's academic qualifications.

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 and Advanced Test (in area of specialization) 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.

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. Final approval or disapproval of applications for admission rests with the Graduate Council. Registration in the Graduate Program is permissible only after the applicant has received notification from the Dean of the College of the action by the Graduate Council.

Applicants may be admitted to the Graduate Program of Madison College or to graduate study at Madison College under four classifications: Unconditional Admission, Conditional Admission, Unclassified Admission, or Transient 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.

**Unclassified 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 for an advanced degree. Unclassified Admission does not require the approval of the Graduate Council. If an unclassified graduate student should, at a later date, wish to change his admission status, he may so petition the Dean of the College. Such petitions will be processed as applications for regular admission. Approval for graduate credit of courses taken while a student is enrolled in an unclassified status will be determined by the Dean of the College upon recommendation of the Department Head concerned.
Transient 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 already been admitted to the graduate program of another institution and desire only to earn graduate credits for transfer to that institution. Transient Admission requires written approval from the applicant’s home institution and special approval from the Dean of the College.

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.

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 candidate’s Student Advisory Committee or by the Department Head concerned and recommended to the Graduate Council 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 Advisory Committee and the Department Head concerned, and must mention the regulation and justify completely the exception being requested.

Student Advisory Committee

Immediately following admission to the Graduate Program of Madison College and prior to enrollment in the first course, the student will meet with the Head of the Department in which he wishes to Major and will select a Student Advisory Committee. This committee will consist of three members, two from the area of Major concentration and one from the area of Minor concentration. In cases where a Minor is not required, the third member of the Student Advisory Committee will not be a member of the department in which the student is a Major. The chairman of the Student Advisory Committee will be the professor under whom the thesis is to be written or, in cases where a thesis is not a requirement, the professor whose
academic background corresponds most closely with the academic interests of the student.

The Student Advisory Committee is 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.

The Department Head concerned will submit for approval to the Graduate Council his recommendation for members of each Student Advisory Committee. No faculty member will serve on more than five Student Advisory Committees.

PROGRAM OF STUDY

Prior to the end of the first semester of formal enrollment in the Graduate Program of Madison College, the student will meet with his Student Advisory Committee to plan a well-defined and complete Program of Study including all credit and thesis requirements, supplementary requirements, and credit by transfer, necessary to fulfill the total requirements for the graduate degree. The chairman of the Student Advisory Committee will submit for approval to the Graduate Council the complete Program of Study. Subsequent changes in the Program of Study will be submitted for approval to the Graduate Council.

ADMISSION TO CANDIDACY

The submission and approval by the Graduate Council of (1) the Student Advisory Committee and (2) the Program of Study, and (3) the submission of a satisfactory score on the Graduate Record Examination will constitute Admission to Candidacy to the Graduate Program of Madison College.

COURSE LEVEL REQUIREMENTS

At least one-half of the credits submitted as the Program of Study 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). 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, such a certificate must be obtained before the degree is conferred unless this requirement is waived by the Graduate Council.

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 and for the Master of Arts degree with a Major in English. 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. The Thesis Outline will be approved by the Student Advisory Committee and will be submitted for approval to the Graduate Council prior to the initiation of the research program.

3. The thesis will be prepared according to the format as given by W. G. Campbell's *Form and Style in Thesis Writing* and must be completed sixty days before the expected date of graduation.

4. Three unbound copies of the thesis will be filed with the Dean of the College not later than thirty days before the expected date of graduation for approval by the Graduate Council.

5. An abstract of the thesis consisting of not more than six hundred words is required and will be filed with the thesis.

EXAMINATIONS

A comprehensive oral examination is required of all graduate students in partial fulfillment of requirements for the graduate degree. The chairman of the Student Advisory Committee will arrange for a
suitable examination date during the final semester of study, will conduct the examination, and will submit to the Graduate Council the results of the examination. The comprehensive examination will be open to all members of the Graduate Faculty. Only members of the Student Advisory Committee may vote on the results of the examination. Notice of the examination date will be posted on the departmental bulletin board for at least one week prior to the examination.

A candidate who fails on the comprehensive examination may be permitted a re-examination at the discretion of the Student Advisory Committee. A re-examination cannot be given sooner than the semester following the unsuccessful examination.

**TIME LIMIT**

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

**RESIDENCE REQUIREMENTS**

A graduate student must be in residence at Madison College for at least two semesters, not necessarily continuous, in order to meet the minimum residence requirement. This requirement may be satisfied by an equivalent time in summer sessions and/or evening courses.

**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 will be included as a part of the Program of Study submitted for approval to the Graduate Council. 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 Dean of the College.
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 Advisory Committee, 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; C = Fair; I = Incomplete; F = Failure. Graduate students must receive a grade of “B” or higher in courses for which graduate credit is to be given.

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 the Graduate 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 of residence.

No grades will be given for thesis research until the research has been completed and the thesis written. 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 an Unclassified graduate student.

**Employment and Academic Loads**

The Graduate Council recognizes 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, the Graduate Council prescribes certain maximum limits on graduate
academic loads 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 only 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 Dean of the College at least sixty (60) days prior to graduation.

FEES AND EXPENSES

Listed below are 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.

- Semester hour fees for Virginia Students: $16.00 per credit hour
- Semester hour fees for non-Virginia Students: $28.00 per credit hour
- Student Activity Fee (Optional): $10.00 per semester
- Board, Room and Laundry (Optional): $247.50 per semester
- Service fee (Non-residential students): $6.00 per semester
- Construction Fee (Dormitory students only): $32.50 per semester
- Infirmary Fee: $2.50 per semester

The foregoing schedule of fees does not cover cost of books and supplies.
**Thesis Fee:** Graduate students who have not already paid a thesis fee will henceforth be charged for Thesis (course number 700) at the regular rate of $16.00 per semester hour.

**Auditing:** Auditors of classes, who are not taking courses for credit, will pay the same semester hour fees as regular students.

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

**Student Activity Fee (Optional for graduate students):** A charge of $10.00 per semester is made for all undergraduate students and is used 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*. Graduate students may participate in these activities by paying the Student Activity Fee.

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

**Service Fee (Non-residential students):** A fee of $6.00 per semester is charged all non-residential students to cover expenses for day-student lounges and other facilities provided for them on the campus.

**Construction Fee (Dormitory Students only):** Due to a change in State policy, the College must now charge a fee for dormitory and other college buildings financed, in whole or in part by bond issues, to provide for sinking fund requirements.

**Infirmary Fee:** Each student is required to pay a fee of $2.50 per semester for use of infirmary facilities.

**Student 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 college 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 Dean of the College, 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.

SCHOLARSHIP ASSISTANCE

Summer School Scholarships

A total of approximately one thousand graduate scholarships will be made available for the Summer of 1967 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.

Applications should be submitted on official forms to the State Department of Education not later than April 28, 1967. For further information on the Graduate Scholarship Assistance program, the teacher should consult his Division Superintendent of Schools.

Graduate Assistantships

A limited number of Graduate Assistantships are available in those departments offering Major programs of graduate study. These appointments require the student to engage in half-time instruction under supervision or in equivalent services. Graduate Assistantships carry a stipend of eighteen hundred dollars ($1800) for the academic year plus remission of fees. Students accepting appointments as

*or upon recommendation of the division superintendent, candidates whom he intends to employ as kindergarten teachers are eligible.
Graduate Assistants will carry an academic load of not more than nine (9) semester hours. All correspondence pertaining to Graduate Assistantships should be addressed to the Head of the Department in which the student expects to do his Major work.

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 the student is engaged in a specific research project.

COURSES OF INSTRUCTION

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

Courses with numbers 500 to 599 are open for undergraduate credit to approved undergraduates of junior and senior level. Courses numbered 600 and above are offered for graduate students only.

ART

DR. THEODORE, Head of the Department

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

The Department of Art offers programs of study leading to the Master of Arts in Education degree with a Major or a Minor in Art. The minimum requirement for a Major in Art is twenty-one (21) semester hours of graduate credit in Art to include Art 700 (Thesis).

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 to include Art 515 (Studio Problems in Art Education) and Art 680 (Criticism of Art).

Art and its relationship to the needs of the pre-school 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. 3-6 credits.

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

ART 524. ADVANCED WEAVING AND TEXTILE DESIGN. 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. 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. 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 235 or equivalent.

ART 550. GRAPHICS. 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. DRAWING AND PAINTING. 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. 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 333 or equivalent.
ART 616. ART AND THE ADOLESCENT. 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. 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. DRAWING AND PAINTING. 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. 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 333 or equivalent.

ART 680. CRITICISM OF ART. 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. MENZEBIER, 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 to 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 in Education degree with a Major in Biology and the Master of Science degree with a Major in Biology. 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. The minimum requirement for the Master of Science degree is thirty (30) semester hours of graduate credit in Biology including Biology 700 (Thesis). A prerequisite for the Master of Science degree is Mathematics 140 (Elementary Statistics), or its equivalent.

Graduate students planning a program of study leading to the Master of Arts 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 the Department of Biology must have their Program of Study approved by the Head of the Department.

**Biology 510. Animal Ecology. 3 credits.**

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

**Biology 520. Plant Ecology. 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.)

**Biology 530. Vertebrate Physiology. 4 credits.**

A study of vertebrate systemic function. Particular emphasis will be given to the quantitative interpretation of muscle contraction and the nerve impulse. Laboratory exercises will involve the use of vertebrate forms to demonstrate specific functional phenomena.
Biology 540. Advanced Bacteriology. 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 (or consent of instructor).

Biology 555. Introduction to Plant Physiology. 4 credits.

Practical aspects of fundamental life processes of plants involving physiological structure and environmental relationships. Prerequisites: Bio. 200 and Chem. 101-102 or equivalent.

Biology 560. Systematic Entomology. 3 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.

Biology 570. Cryptogamic Botany. 4 credits.

Comparative morphology, life histories, ecology and taxonomy of representative algae, fungi and bryophytes.

Biology 580. Vertebrate Histology and Micro-Technique. 4 credits.

Emphasis will be placed on acquainting the students with the essentials of histology through independent preparation of tissues and slides with supplementary lectures and prepared materials.

Biology 590. Advanced Embryology. 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 DNA and RNA.

Biology 595. Economic Entomology. 3 credits.

The biology and control of the major insect pests of man and his crops, exclusive of insects of medical importance. Prerequisite: Bio. 560 or its equivalent.

Biology 600. Physiology of Respiration. 3 credits.

A comparative study of breathing and respiration in selected invertebrates and vertebrates including man.
**Biology 610. Population Genetics.** 4 credits.

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

**Biology 620. Invertebrate Physiology.** 4 credits.

A comparative study of physiological processes in various invertebrate phyla, interpreted in terms of structural variation, evolutionary history, and ecology.

**Biology 630. Plant Physiology.** 4 credits.

An advanced study of the physio-chemical processes of plants and how they meet their functional requirements.

**Biology 640. Medical Entomology.** 3 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.** 3 credits.

A study of the effect of ionizing radiation on the organism. The nature and source of these radiations will be discussed as well as their effect and methods of protection against them.

**Biology 660. Mycology.** 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.** 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 680. Microbial Physiology.** 4 credits.

This course is concerned with the study of the principles of enzymology and energetics, and includes a detailed study of the pathways operative in carbohydrate, fat, and protein metabolism. Bacterial photosynthesis is also included.
Biology 690. Parasitology. 3 credits.

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

Biology 695. Independent Study. 3 credits. (695a Zoology; 695b Botany; 695c Bacteriology)

Individual research in the discipline involved.

Biology 700. Thesis. 6 credits.

Business

Dr. Dickerson, Head of the Department

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

The Department of Business offers programs 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 Arts 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.

Business 500. Marketing Seminar. 3 credits.

Study and analysis in the major decision areas of marketing, individual research in the field with emphasis on modern trends and concepts in marketing. Prerequisite: Bus. 487 or equivalent.

Business 510. Management Seminar. 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: Bus. 280 or equivalent.
BUSINESS EDUCATION 520. ADVANCED STUDIES IN THE BASIC BUSINESS SUBJECTS. 3 credits.

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

BUSINESS EDUCATION 530. ADVANCED STUDIES IN THE SKILL BUSINESS SUBJECTS. 3 credits.

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

BUSINESS EDUCATION 550. CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION. 3 credits.

Principles, practices and problems in the evaluation and construction of business education curricula to meet the needs of youth and adults in an advancing free enterprise system.

BUSINESS EDUCATION 610. PROBLEMS IN BUSINESS EDUCATION. 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 630. SEMINAR IN AMERICAN BUSINESS. 3 credits.

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

BUSINESS EDUCATION 640. SEMINAR IN AUTOMATED DATA PROCESSING SYSTEMS. 3 credits.

Seminar in Automated Data Processing Systems, designed to provide the student with the latest methods, techniques, and knowledges essential to the teaching of data processing. Course consists of classroom work and practical machine experience.

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. CHAPPELL, Head of the Department**

A graduate Major and Minor in Chemistry will be planned for the needs and interests of the student. A Major in Chemistry leading to the *Master of Science in Education* degree will consist of twenty-one (21) semester hours of graduate work in Chemistry subject to the approval of the Head of the Department. A Minor in Chemistry will consist of twelve (12) semester hours of graduate work in Chemistry. The student will plan his program with the help of the Head of the Department and the Student Advisory Committee.

**CHEMISTRY 501. ADVANCED INORGANIC CHEMISTRY. 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.

**CHEMISTRY 505. THEORETICAL CHEMISTRY. 3 credits.**

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

**CHEMISTRY 506. THEORETICAL CHEMISTRY. 3 credits.**

A continuation of Chemistry 505.

**CHEMISTRY 510. PHYSIOLOGICAL CHEMISTRY. 3 credits.**

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

*Neither a Major nor Minor is currently offered in Chemistry. A graduate program in Chemistry will be offered beginning with the 1968-69 academic year. The graduate courses listed herein are currently available.*
CHEMISTRY 520. RECENT DEVELOPMENTS IN CHEMISTRY. 3 credits.

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

CHEMISTRY 530. ADVANCED ORGANIC PREPARATIONS. 3 credits.

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

CHEMISTRY 540. ADVANCED TOPICS. 3 credits.

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

CHEMISTRY 700. THESIS. 6 credits.

EDUCATION

DR. CALDWELL, Head of the Department

The candidate for the degree of Master of Arts in Education or the Master of Science in Education must either Major or Minor in Education.

The 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 for teachers in academic and special subject fields in the secondary school.

The Department of Education offers six major programs of study. These programs are: (1) for teachers of nursery school and kindergarten; (2) for teachers in the elementary school; (3) for teachers in the secondary school; (4) for college graduates who have not completed sufficient work in professional education to meet certification requirements; (5) for reading specialists; and (6) for teachers seeking approval as guidance counselors. Programs (1) and (5), listed above, do not require a minor.

The candidate for the Master of Arts in Education degree who elects to Major in Education must successfully complete eighteen (18)
semester hours of graduate credit in Education. Education 630 (Research Methods in Education) is required of all students majoring in Education. A student may elect Education 700 (Thesis) for six (6) semester hours credit.

The candidate for the Master of Arts in Education or the Master of Science in Education degree who elects to Major in a subject-matter field will Minor in Education. The minimum requirement for a Minor in Education is nine (9) semester hours of graduate credit in Education.

**EDUCATION 500. SEMINARS IN CLINICAL PROCEDURES. 3 credits.**

Concentrated attention to diagnosis and clinical procedures of specific disorders. 500A—Cerebral palsy and cleft palate; 500B—Stuttering, voice, language disorders.

**EDUCATION 501. SEMINAR IN EDUCATIONAL TELEVISION. 3 credits.**

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

**EDUCATION 502. THE ELEMENTARY SCHOOL READING PROGRAM. 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.

**EDUCATION 504. OCCUPATIONAL AND EDUCATIONAL INFORMATION. 3 credits.**

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

**EDUCATION 505. THE ROLE OF THE SCHOOL IN SOCIETY. 3 credits.**

Interpretation of the school as society's agency for human betterment, with emphasis on cultural living. Some issues that arise in the organization and operation of the schools.
Education 506. Teaching Reading Skills Beyond the Elementary Grades. 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 507. Diagnostic and Remedial Techniques in Reading. 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.

Education 508. Education of Mentally Retarded Children. 3 credits.

This course deals with the organization of instruction for the trainable and educable mentally retarded and slow learner. Major emphasis will be on curriculum adjustment, specialized methods, and evaluation.

Education 509. Exploring the Early Childhood Education Curriculum in Depth. 3 credits.

Survey of theory and practice in contemporary early childhood curriculum and analysis of various methods used in working with young children. Consideration of research regarding curriculum planning and methods of teaching the disadvantaged child.

Education 510. Applied Arts in Early Childhood Education. 3 credits.

The creative process and its relationship to developmental stages of the child. Activities and materials are considered with reference to motivating the child and interpreting his self expression.

Education 512. Secondary School Curriculum and Co-Curriculum. 3 credits.

The principles and forms of curriculum organization, with appraisal of such curricula patterns as the subject-matter curriculum, the correlated, fused, core and experience curriculum are included in this course. Also considered are the techniques for reorganizing the curriculum; leadership in curriculum development, and participation of teachers in curriculum improvement.
**Education 514. Seminar in Special Education. 3 credits.**

This course will include the analysis and evaluation of current research with its application to the field of special education. The study and evaluation of educational and sociological problems associated with exceptional children will be included.

**Education 515. Practicum in Special Education. 3 credits.**

Students will work in one to one relationships with a child with one or more exceptionalities under the supervision of a faculty member. Records will be kept, and methods and progress evaluated.

**Education 516. Theory and Practice of Guidance. 3 credits.**

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

**Education 525. Teaching the Language Arts. 3 credits.**

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

**Education 540. Basis of Curriculum Development. 3 credits.**

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

**Education 567. Instruction. 3 credits.**

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

**Education 591. The Elementary School Curriculum. 3 credits.**

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

**Education 601. The Elementary School. 3 credits.**

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

**Education 603. Philosophy of Education. 3 credits.**

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

**Education 610. Organization and Administration of Guidance Programs. 3 credits.**

A consideration of the theory, organization, and personnel practices involved in organizing and administering guidance programs; the role of the guidance counselor; in-service education and program evaluation. Pre-requisite: Ed. 516, or its equivalent.

**Education 612. Methods and Materials in Early Childhood Education. 3 credits.**

Research in child development as it relates to facility planning and administration of kindergarten and nursery school programs. Evaluation of research and methodology in terms of principles of child development.

**Education 616. Teaching the Young Child. 3 credits.**

Analysis of the methods of teaching the three to five year old child; the role of the teacher in early childhood education, her philosophy and objectives. Emphasis on perceptual development of the child, his concept formation and symbolization, as well as interpreting and guiding his behavior.

**Education 620. Comparative Education. 3 credits.**

A comparison of the educational system and philosophy of the United States with those of specific foreign countries is included in this course. Although the emphasis is on recent trends and practices, attention is given to the social, economic, and political problems and developments which brought about progress.
EDUCATION 630. RESEARCH METHODS IN EDUCATION. 3 credits.

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

EDUCATION 640. THE FUNDAMENTALS OF EDUCATIONAL ADMINISTRATION. 3 credits.

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

EDUCATION 650. SUPERVISION OF INSTRUCTION. 3 credits.

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

EDUCATION 655. TECHNIQUES IN COUNSELING. 3 credits.

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

EDUCATION 660. PRACTICUM IN DIAGNOSTIC AND REMEDIAL TECHNIQUES IN READING. 3 credits.

This course will be a logical continuation of Education 507. 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.

EDUCATION 700. THESIS. 6 credits.
ENGLISH

Dr. Locke, Head of the Department

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

The minimum requirement for the Master of Arts in Education degree with a Major in English is twenty-one (21) semester hours of graduate credit in English including English 501 (Growth and Structure of the English Language), English 520 (The Practice of Literary Criticism), and English 601 (Shakespeare). The student may elect English 700 (Thesis) for six (6) semester hours of graduate credit.

Graduate students planning a program of study leading to the Master of Arts in Education degree with a Major in Education may Minor in English with a minimum requirement of twelve (12) semester hours of graduate credit in English to include English 501 (Growth and Structure of the English Language) and English 520 (The Practice of Literary Criticism).

The minimum requirement for the Master of Arts degree with a Major in English is thirty (30) semester hours of graduate credit in English to include English 700 (Thesis). No Minor is required.

ENGLISH 501. GROWTH AND STRUCTURE OF THE ENGLISH LANGUAGE. 3 credits.

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

ENGLISH 520. THE PRACTICE OF LITERARY CRITICISM. 3 credits.

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

ENGLISH 530. STUDIES IN AMERICAN LITERATURE. 3 credits.

A study of literary movements and significant authors of several of the periods of American literature will be made in different years.
ENGLISH 550. MODERN DRAMA. 3 credits.

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

ENGLISH 590. STUDIES IN OLD ENGLISH. 3 credits.

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

ENGLISH 601. SHAKESPEARE. 3 credits.

A study of selected plays by Shakespeare. The choice of plays will vary in different years.

ENGLISH 610. STUDIES IN MIDDLE ENGLISH LITERATURE. 3 credits.

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

ENGLISH 620. STUDIES IN RESTORATION AND EIGHTEENTH-CENTURY LITERATURE. 3 credits.

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

ENGLISH 630. STUDIES IN ENGLISH LITERATURE OF THE NINETEENTH-CENTURY. 3 credits.

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

ENGLISH 640. STUDIES IN CONTEMPORARY LITERATURE. 3 credits.

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

ENGLISH 650. POETRY AND PROSE OF THE ENGLISH RENAISSANCE. 3 credits.

The major literary expressions of the English Renaissance from the rise of humanism to Milton, excluding Shakespeare.
ENGLISH 660. STUDIES IN SEVENTEENTH-CENTURY LITERATURE.  
3 credits.
A study of selected authors and movements in the poetry and prose  
of the Seventeenth Century. Especial attention to Metaphysical poetry  
and to the development of modern English prose style.

ENGLISH 670. STUDIES IN THE POETRY OF THE ROMANTIC  
MOVEMENT. 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.

GENERAL SCIENCE

DR. IKENBERRY, DIVISION DIRECTOR

The Division 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 Arts 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 510 (Vertebrate  
Ecology), Physical Science 510 (Earth Science), and Physical Science  
520 (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 510. ANIMAL ECOLOGY. 3 credits.
A course designed to acquaint students with fundamental relation- 
ships existing between animals and their environment. Emphasis will be  
placed on the dynamic aspect of ecology and its importance to mankind.
The laboratory will consist of group discussion sessions and selected field trips throughout the Shenandoah regions.

**Physical Science 510. Earth Science. 3 credits.**

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

**Physical Science 520. Matter and Energy. 3 credits.**

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

**HISTORY**

**Dr. Dingledine, Head of the Department**

The Department of History offers a program of graduate study leading to the *Master of Arts in Education* degree with a Major in History. The minimum requirement for a Major in History is twelve (12) semester hours of graduate credit in History and nine (9) hours of graduate credit in two areas of the Social Sciences. Students may elect History 700 (Thesis) in lieu of six (6) hours of graduate credit in the related areas of the Social Sciences.

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

**History 525. United States History, 1800-1850. 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, 1877-1917. 3 credits.**

An interpretive study of United States History from Reconstruction to 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 624. Colonial America. 3 credits.

An interpretative 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 630. Europe in the Era of World War I. 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. 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 650. The Rise and Fall of Western Colonialism. 3 credits.

A study of the impact of Europe on the rest of the world with emphasis on the empires built by the English, Dutch, French, Italians, Spanish, and Portuguese in America, Africa and Asia.

History 660. Intellectual History of Modern Europe. 3 credits.

History of European thought from the time of Descartes to the present with emphasis on philosophy, literature, and social movements.

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

To satisfy the increasing demand for graduate education in all fields of Home Economics, the Department of Home Economics offers advanced course work in each area. These courses may be applied toward a Minor in Home Economics for those students planning a program of study leading to the Master of Arts 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. 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. 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 540. CLOTHING CONSTRUCTION TECHNIQUES. 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 610. NEW DEVELOPMENTS IN FOODS. 3 credits.

Review and interpretation of the literature in the field of food and food research. A critical analysis is made of recent developments in new food products. Prerequisite: H.E. 140 or its equivalent.

HOME ECONOMICS 639. SEMINAR IN TEXTILES. 3 credits.

Recent trends in textile developments affecting characteristic behavior of old and new fibers as reported in current literature. Study in selection and care 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. 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. 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. IKE NBERRY, HEAD OF THE DEPARTMENT

The primary objectives of the graduate program of the Department of Mathematics are to extend and deepen the student’s understanding of contemporary Mathematics, to promote a desire for continuing growth and competency in Mathematics, and to encourage independent inquiry, which is an essential ingredient in intellectual development. While the program is planned primarily to prepare mathematics teachers for the high schools and junior colleges, it is flexible and adaptable to the needs of others.

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. The minimum requirement for the Master of Science degree with a Major in Mathematics is thirty (30) semester hours of graduate credit in Mathematics. No Minor is required. A thesis in Mathematics is an option which may be elected by the student.

Graduate students planning a program leading to the Master of Arts in Education with a Major in Education may Minor in Mathematics with a minimum requirement of twelve (12) semester hours of graduate credit in Mathematics.
MATHEMATICS 505. MATHEMATICAL STATISTICS. 3 credits.

An introduction to theoretical statistics. Probability; discrete and continuous random variables; mathematical expectation. Prerequisite: Math. 235-236 or equivalent.

MATHEMATICS 506. MATHEMATICAL STATISTICS. 3 credits.

A continuation of Mathematics 505. Sampling distributions; point and interval estimation; tests of hypothesis; regression and correlation; design and analysis of experiments. Prerequisite: Math. 505.

MATHEMATICS 510. INTRODUCTION TO ANALYSIS. 3 credits.

Introduction to point set topology; rigorous treatment of the concepts of limit, continuity, differentiability, and the Riemann integral; sequences and series. Prerequisite: Math. 385 or equivalent.

MATHEMATICS 515. HISTORY OF MATHEMATICS. 3 credits.

This course is 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. Attention is given to the lives and contributions of eminent mathematicians.

MATHEMATICS 520. FOUNDATIONS OF EUCLIDEAN GEOMETRY. 3 credits.

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

MATHEMATICS 525. NUMERICAL ANALYSIS. 3 credits.

Error analysis, interpolating functions, roots of equations by successive approximations, iterative methods for solving simultaneous linear equations, and programming. Laboratory work will consist of Fortran programming with application to the IBM 1130 Computer on campus. Prerequisite: Math. 385 or the consent of the instructor.

MATHEMATICS 550. THEORY OF NUMBERS. 3 credits.

Topics in elementary number theory including properties of integers and prime numbers, divisibility of numbers, simple Diophantine equations, congruence and residues.
Mathematics 600. Foundations of Mathematics. 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. 3 credits.

Topics include cardinal numbers, topology of the real line, measurable sets, measurable functions, and the Lebesque integral. Prerequisite: Math. 510.

Mathematics 620. Modern Geometry. 3 credits.

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

Mathematics 625. Matrix Theory. 3 credits.

An introduction to matrix algebra and determinant theory.

Mathematics 635. Introduction to Point Set Topology. 3 credits.

An introduction to point set topology including topological spaces, basis, continuity, connectedness, compactness and the Tychonoff theorem, topological groups, separation axioms, continua, the Tietze extension theorem, separability, arcs, and mappings of the interval.


A study of such topics as groups, rings and ideals, Euclidean domains, and unique factorization domains. Prerequisite: Math. 365 or equivalent.

Mathematics 646. Abstract Algebra II. 3 credits.

A continuation of Mathematics 645 which will include such topics as fields, extension fields, and Galois theory.

Mathematics 660. Complex Variables. 3 credits.

Analytic functions; differentiation and integration; power series; conformal mapping.
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.

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.

Music 501. Choral Materials and Techniques. 3 credits.

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

Music 502. Instrumental Materials and Techniques. 3 credits.

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

Music 511, 512, 513, 514. Applied Music. 1 credit.

Four semester hours of credit in applied music—piano, voice, organ, and an orchestral instrument—may be offered toward the Master's degree. Graduate students will be encouraged to study applied music, and work will be suited to their individual needs.
Music 521. Music of the Church. 3 credits.

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

Music 522. Master Class in Piano. 3 credits.

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

Music 526. Advanced Conducting (Choral and Instrumental). 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. 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. 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. 3 credits.

A sequel to Music 541. One course may be taken without the other and either may be elected first.
**MUSIC 545. INSTRUMENTATION.** 3 credits.

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

**MUSIC 561. MUSIC OF THE BAROQUE AND CLASSICAL PERIODS.** 3 credits.

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

**MUSIC 562. MUSIC OF THE ROMANTIC PERIOD.** 3 credits.


**MUSIC 563. TWENTIETH-CENTURY MUSIC.** 3 credits.

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

**MUSIC 570. ANALYTICAL STUDIES IN MUSIC LITERATURE.** 3 credits.

The study of representative works from all periods in terms of their formal and stylistic characteristics. Stylistically the analysis will include a consideration of the following: melodic and rhythmic elements, harmonic and contrapuntal techniques, texture (in its many ramifications), orchestration (vocastraction) 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 EDUCATION 610. RESEARCH AND TRENDS IN MUSIC EDUCATION.** 3 credits.

This course deals with psychological factors involved in the teaching of music, with individual measurements in music, and with more recent developments in music education. It is designed to include work which is significant to all branches of music teaching.
Music Education 611. The Supervision and Administration of Music. 3 credits.

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

Music Education 612. Projects in Music Education. 3 credits.

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


This course deals with broader concepts in music education in developing a coordinated and continuous program, and in examining methods of instruction. One week of the course will be devoted to participation in and exploration of these aspects of the Virginia Music Camp and Workshop at Massanetta Springs.

Music 700. Thesis. 6 credits.

Psychology

Dr. Mundy, Head of the Department

The graduate program of the Department of Psychology has these aims: (1) to enlarge the candidate's subject-matter background; (2) to give the career teacher an opportunity to increase her understanding of the developmental factors influencing the growth, development, learning, and adjustment of the human organism; and (3) to enable the candidate to become a more intelligent consumer and producer of psychological research.

Students planning a program of study leading to the Master of Arts in Education with a Major in Education may Minor in Psychology with a minimum of twelve (12) semester hours of graduate credit in Psychology.
Psychology 518. Growth and Development During Childhood and Preadolescence. 3 credits.

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

Psychology 614. Practicum in Early Childhood Education. 3 credits.

Supervised experience in working with preschool children and their parents. The preparation of observational records and social histories and their analyses.

Psychology 618. Seminar in Sensitivity Training. 3 credits.

Analysis of attitude organization and change. The relation of feelings to developing behavior patterns. Observation and supervised participation in nursery school to increase awareness of and sensitivity to developing personalities of young children.

Psychology 628. Research in Adolescent Psychology. 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. 3 credits.

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

Psychology 670. Individual and Group Tests. 3 credits.

The development, administration, and interpretation of standardized tests are considered, as well as the use of such tests in survey programs, in the evaluation of instructional efficiency, and in the planning and improvement of teaching procedures. A course in Tests and Measurements is strongly recommended before enrolling in Psychology 670.

Psychology 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.
SOCIAL SCIENCE

DR. MACE, HEAD OF THE DEPARTMENT

The Department of Social Science offers programs of study leading to the Master of Arts in Education degree with a Major or a Minor in Social Science.

The minimum requirement for a Major in Social Science is twenty-one (21) semester hours of graduate study in Social Science to include nine (9) semester hours of concentration in one subject area (Economics, Geography, Political Science, or Sociology) and twelve (12) semester hours of concentration in at least two other subject areas (including History); or twelve (12) semester hours of concentration in one subject area, three (3) semester hours elected from a second subject area, and six (6) semester hours of Social Science 700 (Thesis).

Students planning a program of study leading to the Master of Arts in Education degree with a Major in Education may Minor in Social Science with a minimum requirement of twelve (12) semester hours of graduate credit in Social Science.

ECONOMICS 522. ECONOMIC PROBLEMS OF EMERGING NATIONS. 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.

ECONOMICS 527. ECONOMIC PROBLEMS OF MODERN EUROPE. 3 credits.

A study of economic conditions and related political developments as a background for understanding the contemporary economic positions of major European countries.

ECONOMICS 600. CONTEMPORARY ECONOMICS. 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.
ECONOMICS 601. ECONOMICS SEMINAR: INDUSTRY-IN-ACTION. 3 credits.

This course is designed to highlight the American free enterprise system. Students will participate in field trips to examine how our economic system operates at the production level. Lectures and demonstrations in the field will include visits to major representative industrial plants.

Enrollment is limited. On account of the field trips, a special non-refundable fee of thirty-five dollars ($35.00) must be paid in advance to the Head of the Department. This special fee will be in addition to the regular registration fees for the course which are payable to the Business Office.

ECONOMICS 610. ECONOMICS SEMINAR: GOVERNMENT AND BUSINESS. 3 credits.

This course is organized to place emphasis on government regulation of business in the United States and competing countries. Students will examine the historical development of regulation, consider its contemporary scope and discuss its philosophical and economic basis.

ECONOMICS 620. SEMINAR IN LABOR-MANAGEMENT RELATIONS. 3 credits.

In this seminar economic analysis is applied to the labor market with a consideration given to wage determination, prices and wages, employment and wages and other areas of relationships.

Students will examine the history of the labor movement, the methods, policies and theories of labor and compare these with policies, methods and theories of management.

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.

ECONOMICS 700. THESIS. 6 credits.

GEOPGRAPHY 560. POLITICAL GEOGRAPHY. 3 credits.

A detailed study of the world’s pressure areas based upon cause and effect of political tensions from a geographic frame of reference. Principles of political geography will be discussed in detail and will then be applied to tension areas, past as well as present, while special reference will be made to the geographic causes which help to create post World War I problems.
Geography 580. Cultural Geography. 3 credits.

A systematic as well as regional study of the world's cultures as based upon differences and similarities of the geographic environment on a global scale. Emphasis will be on the distribution of population and the problems which have arisen from this distribution.

Geography 590. The Tropical World. 3 credits.

This course is designed to highlight the areas of the world bordering on the Equator, including Central Africa, Southeastern Asia, Central and Northern Latin America and the Pacific. Students will study the physical environment in relationship with the cultural and social characteristics that together make these areas part of the present world political struggle.

Geography 610. Seminar in Economic Geography. 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.

Geography 620. Seminar in Regional Geography. 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 529. International Organization. 3 credits.

An examination of the international organization such as The Organization of American States, United Nations, Pan-American Union, and regional organization in terms of structure, functions and role in foreign affairs.

Political Science 550. Problems in State and Local Government. 3 credits.

This course will focus attention on the major problems faced by local and state governments. The problem will include political leadership, operation of the courts, police power, fiscal problems, metropolitan areas and others.
POLITICAL SCIENCE 610. MODERN POLITICAL THEORY. 3 credits.

Examination of the contributions of political thinkers from Machiavelli to the present. Bodin, Hobbes, Locke, Montesquieu, Rousseau, Burke, Hegel, and Marx will be among those considered.

POLITICAL SCIENCE 620. SEMINAR IN FEDERAL GOVERNMENT. 3 credits.

This course is designed to acquaint 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. On account of the field trips, a special nonrefundable fee of thirty-five dollars ($35.00) must be paid in advance to the Head of the Department.

POLITICAL SCIENCE 630. SEMINAR IN STATE AND LOCAL GOVERNMENT. 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 nonrefundable fee of thirty-five dollars ($35.00) must be paid in advance to the Head of the Department. This special fee will be in addition to the regular registration fees for the course which are payable to the Business Office. The course will be offered during the Summer Session only.

POLITICAL SCIENCE 640. SEMINAR IN INTERNATIONAL RELATIONS. 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 nonrefundable fee of thirty-five dollars ($35.00) must be paid in advance to the Head of the Department.

POLITICAL SCIENCE 650. COMPARATIVE WORLD GOVERNMENTS. 3 credits.

This course is designed to acquaint the student with the governmental forms and structures of the major world powers. A comparison is made between the American Federal Government and the governments of Russia and England.
Political Science 680. Reading and Research. 3 credits.

Opportunity is offered the individual student for reading and research in the areas of government which are of special interest to the student. Reading and Research may be done only in the major field of study.

Political Science 700. Thesis. 6 credits.

Sociology 530. The Negro in America. 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 576. The Contemporary Family. 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. 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. 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. 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. 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. Reading and Research may be done only in the major field of study.

Sociology 700. Thesis. 6 credits.
June 17—Dormitories open. Reservations held only until 6:00 p.m., Monday, June 19.
June 18—Dining room opens—Supper is the first meal served.
June 19—Registration: 8:00-12:00 Noon, 1:30-4:30 p.m.
June 20—Classes begin.
June 27—Junior English Proficiency Test (Objective) 1:30 p.m.
June 28—Junior English Proficiency Test (Essay) 1:30 p.m.

July 4—Holiday.
July 8—Graduate Record Examination.
July 15—Examinations for First Four Weeks.
July 17—Registration for new students in Second Four Week Courses, 7:15-12:00 Noon. Classes meet on regular schedule.

August 10, 11, 12—Examinations.
August 13—Sunday, 10:00 a.m.—Final exercises, conferring of degrees.
Dining room closes after lunch. Dormitories close at 6:00 p.m.

September 14—Dormitory assignment for new students.
September 15-16—Orientation of new students: incoming freshmen and transfer students.
September 18—Registration of new students.
September 19—Junior English Proficiency Test: 8:00 a.m.
September 20—Adjustments of programs of spring registrants; completion of registration of upperclassmen (required of old students). Students who do not complete registration on this date will be fined $5.00.
September 21—Beginning of classes: 8:00 a.m.
September 25—Last day on which class changes in schedules of new students may be made without payment of $5.00 fee.
September 28—First semester convocation.

November 11—Classes end first eight weeks.
November 13—Classes begin second eight weeks.
November 15—Mid-semester grades for freshmen.
November 22—Thanksgiving vacation begins: 11:50 a.m.
November 27—Thanksgiving vacation ends and classes begin: 8:00 a.m.

December 16—Christmas vacation begins: 11:50 a.m.
CALENDAR

January 3—Christmas vacation ends and classes begin: 8:00 a.m.
January 18—Classes end first semester: 8:00 a.m.
January 18, 1:00 p.m.—January 27—Examination period.
January 27—First semester ends.
January 31—Second semester registration of new students and course adjustments for old students. Students who make class adjustments subsequent to this time will be subject to a fee of 5.00.
January 31—Junior English Proficiency Test: 1:00 p.m.
February 1—Second semester classes begin at 8:00 a.m.
February 1—Second semester convocation: 1:00 p.m.
March 14—Founders Day.
March 23—Classes end third eight weeks.
March 25—Classes begin fourth eight weeks.
March 25-30—Arts Festival.
March 27—Mid-semester grades for freshmen.
April 3-4—Parents Day.
April 6—Spring vacation begins: 11:50 a.m.
April 16—Spring vacation ends and classes begin: 8:00 a.m.
April 30—Spring Registration.
May 4—May Day and Homecoming.
May 9—Honors Day.
May 22—Classes end second semester: 8:00 a.m.
May 22, 1:00 p.m.—May 31, 12:00 Noon—Examination period.
June 2—Baccalaureate Service: 11:00 a.m.
June 2—Commencement: 2:15 p.m.
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<td>Week Courses, 7:45-12:00 A.M.</td>
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For further information concerning graduate study at Madison College write:

Dean of the College
Madison College
Harrisonburg, Va. 22801