



CHRISTOPHER NEWPORT COLLEGE 1977 - 1979

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Christopher Newport College

Catalog 1977-1979

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In order to keep pace with the rapidly
changing fields in higher education, the
College reserves the right to deviate from

the printed course descriptions without
notice. Last minute changes are noted on
page 151.

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College Calendar

1977	Fall Semester
August 22	Orientation for freshmen and new transfers (Monday)
August 23, 24	Registration period (Tuesday, Wednesday)
August 25	Faculty Workshop (Thursday)
August 29	Beginning of Classes -- 8:00 a.m. Monday
September 2	Last day of add/drop period; last day for late registration (Friday)
September 5	Labor Day: College closed (Monday)
September 16	Last day for refunds (all on-campus classes)
October 3	Last day for December graduates to file intent to graduate, with Registrar (Monday)
October 14	Freshman mid-semester grade reports filed with Registrar: 12 noon (Friday) (Mid-semester examinations should be completed by October 13.)
October 21	Last day for dropping a class without a penalty of failing grade (Friday)
October 28	Last day for withdrawing from College without grade notation WP or WF (Friday)
November 23	Beginning of Thanksgiving holiday (10:00 p.m. Wednesday)
November 28	End of Thanksgiving holiday: 8:00 a.m. (Monday)
November 28 - December 2	Early registration for second semester
December 7	Last day for all classes: 5:00 p.m. (Tuesday December 6 will be Thursday; Wednesday December 7 will be Friday)
	Last day for May graduates to file intent to graduate and request waivers of degree requirements affecting May graduation.
December 10 - 16	Final examination period (Saturday - Friday)
December 18	Commencement (Sunday)
December 22	Final semester grade reports filed with Registrar: 5:00 p.m. (Thursday)
1978	Spring Semester
January 9	Orientation of new students (Monday)
January 10 - 11	Registration period (Tuesday - Wednesday)
January 16	Beginning of classes: 8:00 a.m. (Monday)
January 20	Last day of add/drop period and late registration (Friday)
March 3	Freshman mid-semester grade reports filed with Registrar: 12 noon (Friday)
March 10	Last day for dropping a class without a penalty of failing grade (Friday)
March 17	Beginning of Spring Recess: 5:00 p.m. (Friday)
March 17	Last day for withdrawing without grade notation of WP or WF (Friday)
March 27	End of Spring Semester Recess: 8:00 a.m.
April 14	Last day for August graduates to file intent to graduate with Registrar
April 17 - 21	Early registration for fall semester

April 28	End of all classes. Last day for August graduates to file intent to graduate and request waivers of degree requirements affecting August graduation.
May 1 - 6	Final examination period
May 13	Commencement (Saturday)
1978	Summer Session
June 5	Registration period
June 7	Summer Session classes begin
August 11	Last day of classes. Last day for December graduates to file intent to graduate and request waivers of degree requirements affecting December graduation.
August 12	Commencement
1978	Fall Semester
August 21	Orientation for Freshmen and new transfers
August 22, 23	Registration period
August 24	Faculty workshop
August 28	Beginning of classes: 8:00 a.m.
September 1	Last day for add/drop; last day for late registration
September 4	Labor Day: College closed
September 15	Last day for refunds: (all on-campus classes)
October 13	Freshman mid-semester grade reports filed with Registrar (Mid-semester examinations should be completed by October 12)
October 20	Last day for dropping a class without a penalty of failing grade
October 27	Last day for withdrawing from College without grade notation of WP or WF
November 22	Beginning of Thanksgiving holiday 10:00 p.m. (Wednesday)
November 27	End of Thanksgiving holiday -- 8:00 a.m.
November 27 - December 1	Early registration for second semester
December 6	Last day for all classes. Last day for May graduates to file intent to graduate and request waivers of degree requirements affecting May graduation.
December 11 - 16	Final examination period (Monday-Saturday)
December 17	Commencement (Sunday)
December 20	Final semester grade reports filed with Registrar
1979	Spring Semester
January 15	Orientation of new students
January 16 - 17	Registration period
January 22	Beginning of classes -- 8:00 a.m.
January 26	Last day of add/drop period and late registration
February 9	Last day for refunds
March 2	Freshman mid-semester grade reports filed with Registrar (Mid-semester examinations should be completed by March 1)
March 5	Last day for May graduates to file intent to graduate with Registrar

March 9	Last day for dropping a class without a penalty of failing grade
March 16	Beginning of Spring Recess: 5:00 p.m.
March 26	End of Spring Recess: 8:00 a.m.
April 23 - 27	Early registration for fall semester
May 4	End of all classes (Friday). Last day for August graduates to file intent to graduate and request waivers of degree requirements affecting August graduation.
May 7 - 12	Final examination period
May 19	Commencement (Saturday)

About the College

History

Christopher Newport College was established and duly authorized by the General Assembly of Virginia, in its 1900 session, as a branch of The College of William and Mary. The College derives its name from Captain Christopher Newport, the illustrious English mariner who was one of the most important men connected with the permanent settlement of Virginia. It was Christopher Newport who was put in "sole charge and command" of the small squadron of three vessels which made the historic voyage culminating with the landing at Jamestown in 1607. Although established as a two year College, CNC became a four - year, baccalaureate institution in 1971, and will become completely independent of William and Mary on July 1, 1977.

The College derives its support from the General Assembly and from the tuition and fees paid by its students. The affairs of the College are directed by the Board of Visitors of Christopher Newport College, appointed by the Governor of Virginia. A president, appointed by the Board of Visitors, is delegated authority over the administration and the courses of instruction at the College.

The College first enrolled 171 students in September 1961, at its initial home, a former public school building in downtown Newport News, provided through the generosity of the City and the School Board. The City of Newport News then purchased the site of the present campus, a 75-acre suburban tract deeded to the

Commonwealth of Virginia in 1963. In the decade since the construction of Christopher Newport Hall in 1964, the College has added six other buildings to its campus: two other classroom buildings, a library-administration building, a campus center, a gymnasium, and a greenhouse. In the early years of the College, enrollment increased dramatically; by the fall of 1976, 3,318 students were enrolled. The College currently awards the following degrees: Bachelor of Arts in Elementary Education, English, French, German, History, Mathematics, Philosophy, Political Science, Psychology, Sociology (with concentrations in Social Work, Research and Program Evaluation, and Criminology), Spanish, and Theatre Arts; Bachelor of Science in Biology, Chemistry, and Psychology; Bachelor of Science in Business Administration with concentrations in Accounting, Economics, Finance, Management, Marketing, Real Estate, and Retailing; Bachelor of Science in Governmental Administration with concentrations in Public Management, Community Planning, Law Enforcement, and Corrections; Bachelor of Science in Management Information Science; Bachelor of Arts or Bachelor of Science in Interdisciplinary Studies; Bachelor of Science in Nursing (for registered nurses) in affiliation with Old Dominion University; and Associate in Arts in Liberal Arts and Retailing. The College offers approximately one-third of its classes in the evening, and many degrees are earned by students who attend classes only during evening hours. The growth of the College has brought about corresponding development in academic programs, student services, and administrative organization.

Aims and Purposes

Christopher Newport College is a four-year, comprehensive, urban, coeducational college, offering undergraduate educational programs designed to serve the large metropolitan area of Hampton, Newport News, and several surrounding counties. The student body is non-residential, consisting primarily of men and women who reside in the area but who represent a rich variety of cultural backgrounds.

Christopher Newport College is commit-



ted to teaching, research, and service, with the emphasis on providing quality instruction. Research is carried on in areas of faculty interest and competence as required by and as a necessary complement to the teaching process. Organized and sponsored research is carried on as it involves the institution's public service relationship to the urban community in which it is located.

The College is committed to a core of liberal arts studies. Building upon these, it also seeks to develop and maintain programs of professional education that respond to student learning interests and manpower requirements.

As part of its general mission, Christopher Newport College is committed to new ways of implementing liberal and professional programs which value the student's learning needs and prior life experiences, and which integrate theoretical knowledge and problem solving. Such programs provide opportunities for self-development

and a number of career options to citizens of all ages.

As an urban institution, the College is committed to education as a total community process. This is manifest in several different ways: Christopher Newport serves a primarily local student body, it makes use of the community as an instructional resource, and it draws upon the co-operation and professional talent of those who reside on the Peninsula. In addition, faculty and staff members contribute significantly to the community in areas such as

consulting, serving on local and state committees and service organizations, and through the CNC Speakers Bureau, which shares the expertise of faculty members with local civic, church, professional, and special interest organizations.

The College is organized and instruction is provided to take into consideration the life-long learning needs of a largely part-time, mobile student body. It offers programs of equivalency testing and other non-traditional ways of earning academic credit, cooperates with other colleges and local agencies with diverse missions to expand its learning resources, and offers advising systems and transfer credit policies to meet the needs of the students it serves, many of whom transfer from other institutions.

Accreditation

Christopher Newport College was given independent accreditation as a four-year,

baccalaureate degree-granting institution in November 1971 and was reaccredited in December of 1975 by the Southern Association of Colleges and Schools. Christopher Newport College is also accredited by the Commonwealth of Virginia.

The Campus

Christopher Newport College is centrally located in a suburban area of Newport News, and is easily accessible to residents of the cities of Newport News, Hampton, and surrounding counties. At present, there are seven buildings on the 75-acre campus, most of which have been named in honor of those English mariners and adventurers who significantly shaped the early history of Tidewater Virginia.

Christopher Newport Hall

Serving as captain of the *Susan Conatant* and commander of the three small English ships which landed at Jamestown in 1607, Captain Christopher Newport founded and helped govern Jamestown, explored the two rivers which define the Virginia Peninsula, directed the drawing of the first map of the area, and gave his name to Newport News. Both the College and the first building on the permanent campus were named in his honor. Completed in the fall of 1964, Christopher Newport Hall is a classroom building of 24,160 square feet and now houses the departments of computer science, English, history, and geography. The College Bookstore and a lecture hall which seats 224 people are also located in this hall.

Gosnold Hall

Occupied in September 1965, Gosnold Hall contains 42,389 square feet of classroom, office, and laboratory space. It was named in honor of Captain Bartholomew Gosnold, the early navigator and colonizer who served as Captain Newport's vice admiral in command of the *Godspeed* on the Jamestown voyage. Both he and Captain Newport were among the seven men who made up the colony's first council. Gosnold Hall houses the departments of biology and environmental science, economics, management, marketing, and retailing, chemistry,

mathematics, philosophy, and physics. Like Christopher Newport Hall, it also contains a large lecture hall seating 224 people.

Ratcliffe Gymnasium

Captain John Ratcliffe commanded the third ship on the Jamestown voyage, the *Discovery*, served as one of the seven members of the first Virginia Council, and was chosen as the second Virginia governor. Ratcliffe Gymnasium was named in his honor. Occupied in the fall of 1967, Ratcliffe Gymnasium is the center of the physical education department and the College's athletic activities, both intercollegiate and intramural. Consisting of 32,979 square feet, the building contains office and classroom space as well as two gymnasiums.

Captain John Smith Library and Administration Building

Completed in the fall of 1967, this building of 32,576 square feet was named in honor of Captain John Smith, the famous adventurer, explorer, and author who was a promoter and organizer of the Virginia Company of London and landed with the colonists in 1607. He explored the Chesapeake Bay area, served on the colonists' first council, and was governor of the colony.

The administration building houses the offices of the President, Dean of Academic Affairs, Associate and Assistant Deans of Academic Affairs, Dean of Admissions, Registrar, the Business Office, the Personnel Office, the Director of Development and the Public Information Officer. The faculty mailboxes and one of two campus information desks are also located here.

The Captain John Smith Library contains approximately 95,000 volumes which are catalogued according to the Library of Congress classification scheme. Of this number, approximately 4,700 volumes are reference books, 10,500 are bound volumes of periodicals, 55,000 are circulating books, and 24,800 are microforms. The library receives 589 current periodicals and 26 daily newspapers.

The library building houses books on open shelves. It is completely air-conditioned and includes a reference room, two

reading-stack rooms, a listening room, a browsing area, and an open-air reading deck. The library has a seating capacity of 205. A duplicating service in the library enables students to copy pages from reference books and articles from periodicals, as well as personal items.

Library hours are:

Monday-Thursday	8:00 a.m. to 10:30 p.m.
Friday	8:00 a.m. to 4:45 p.m.
Saturday	9:00 a.m. to 3:00 p.m.
Sunday	1:00 p.m. to 8:00 p.m.

Wingfield Hall

The fifth building on the campus, a classroom structure of 20,090 square feet, was opened in June 1970. It was named in honor of Edward Maria Wingfield. Along with Captains Newport, Gosnold, Ratcliffe, and Smith, Edward Wingfield was named to His Majesty's Council for the first colony in Virginia at Jamestown. From April to September of 1607, Wingfield served as the first President (or governor) of the colony. Wingfield Hall houses the Counseling Center and the departments of basic studies, classical studies, education, modern foreign languages and literatures, and psychology.

The Campus Center

In the fall of 1973, the Campus Center became the focal point for a wide variety of

activities. Contained in the 37,988 square foot building are a recreation area, a cafeteria, a pub, the Dean of Students' Office, the College Placement Office, student publication and Student Government Association offices, student meeting rooms, seminar rooms, a photographic darkroom, a 391 seat theatre, and the department of fine and performing arts. The theatre is the home of the College's developing programs in the performing arts. Included in the theatre wing are a full-thrust stage, an orchestra pit, projection facilities, dressing rooms, rehearsal space, and shop and storage areas. The comprehensive design makes possible a wide variety of drama, concert, and dance performances as well as lecture and film series.

The College Greenhouse

The College greenhouse, completed in 1973, was constructed with funds donated by the City of Newport News. Mike Cazares, then Director of Buildings and Grounds, supervised and actually did much of the construction work himself. The greenhouse portion of the structure contains 500 square feet and was designed according to a similar facility at the Virginia Truck Experimental Station in Norfolk, Virginia. The greenhouse is used as a teaching facility by the Department of Biology and Environmental Science. There is, in addition to the greenhouse portion, a laboratory room and a herbarium.



Admission to the College

Christopher Newport College does not discriminate with regard to race, color, creed, sex or national origin.

Depending on the applicant's educational goals and background, the College accepts the applicant either as a Classified or Unclassified Student. A Classified student seeks immediate admission into a particular baccalaureate degree program; any other applicant accepted into the College is considered an Unclassified student. Either type of applicant may request or be assigned to part-time status (less than twelve hours or the equivalent, including non-credit preparatory work and required physical education) when this seems academically beneficial. The exact course load for a Classified student is always determined during the interview with a counselor or faculty adviser.

Applicants for admission must present their applications on forms obtained from the Office of Admissions. Applicants wishing to enroll as Classified students should file their applications for the fall semester by August 1 and for the spring semester by December 15. After these deadlines, applicants may be required to apply as Unclassified students. While a student so admitted may file for a change of status at a later date, an applicant must be admitted to Classified status before enrolling in the last thirty credits applicable toward a baccalaureate degree.

Classified (Degree-Seeking) Status

Freshman Applicants

The general requirements for admission (as a freshman) to Christopher Newport College are as follows:

- (1) Graduation from an accredited secondary school or its equivalent as shown by examination (See Admission Based on Equivalency Tests below).
- (2) An average of C or better in a program consisting of a minimum of sixteen units (grades nine through twelve). Preferred credits include four units of English, three of mathematics (two in

algebra and one in geometry), two in history, two in science (including one laboratory science), and two in a foreign language (ancient or modern). A student who plans to major in mathematics, science, or engineering will be better prepared for such a program if his or her high school studies have included a fourth unit in higher mathematics and a second laboratory science.

- (3) Acceptable scores on the Scholastic Aptitude Test of the College Entrance Examination Board. The College will also evaluate scores on any other standardized tests administered to the student by his or her secondary school. January applicants must take the SAT no later than December; otherwise, scores reach the College too late for processing for second semester admissions.
- (4) Recommendation for admission by the secondary school principal or guidance counselor. (Optional).

Application Procedures

The Application Fee: The Application for Admission and the Statement of Residency (obtained from the Admissions Office) must be completed and returned to the Office of Admissions. New applicants for admission to Classified status must submit a \$10.00 fee with the application. This fee is non-refundable and cannot be applied to other college fees. The check or money order should be made payable to Christopher Newport College. If the student does not enroll in the semester for which he or she originally applied, the fee may be carried over only to the next semester.

The following documentation must be submitted in addition to the Application for Admission and the Statement of Residency:

Secondary School Record: The transcript form should be delivered to the secondary school with instructions on when it should be sent to the College, based on the following factors:

Early consideration: An applicant who has taken the Scholastic Aptitude Test or plans to take it by December of his or her senior year and who has a strong school record (B average or higher) may want to

receive early consideration. If this is the case, the applicant should request that the transcript, with the grades through the junior year, be returned to the College immediately.

Consideration after mid-year senior grades are available: The applicant to whom the early consideration does not apply should have the transcript sent after mid-year senior grades are available. Any applicant who has already graduated from high school should have this record sent immediately.

G.E.D. Certificate Holders: An applicant who has completed the military or civilian high school equivalency tests is asked to furnish the following items:

- (1) G.E.D. Certificate and scores;
- (2) Partial high school record (send transcript form to last school attended);
- (3) Records of any preparatory work taken since leaving high school, such as USAFI courses, adult education courses, etc.

Scholastic Aptitude Test of the College Entrance Examination Board: Each applicant for admission to the Freshman Class is required to take the Scholastic Aptitude Test. The College prefers that the applicant take the July, November, December, or January test, but scores from the March or April test are acceptable. January applicants, however, must take the SAT no later than December; otherwise, scores reach the College too late for processing for second semester admission. A student may arrange to take the test through the guidance office at his or her high school. An applicant who is no longer in school may pick up an application for the test at the Admissions Office or may write to the Educational Testing Service, Box 592, Princeton, New Jersey 08540. A.C.T. scores will be accepted in lieu of S.A.T. scores.

Transfer Applicants

The following documentation must be submitted in addition to the Application for Admission and the Statement of Residency:

Secondary School Record: If the applicant has completed less than a full year



(24-30 semester credits of 36-45 quarter credits) of college work applicable to a baccalaureate degree, or if the college credits have been acquired through extension or correspondence courses, the applicant should ask the principal of his or her secondary school to send the College a transcript of this record. A community college student in a technical-occupational program may be considered, but must submit the secondary record in addition to his or her college record(s).

The applicant who is applying for the semester beginning in January should have all transcripts sent immediately following formal application to the College. Applicants in their first semester of college must have mid-semester grades sent to the College as soon as they are available.

College Records: The applicant must request that all colleges attended send to Christopher Newport College official transcripts of his or her record. The student who is currently enrolled in a college or university should have the transcript sent after completion of the first semester (or the second quarter) of the current academic year. An applicant who has completed less than one semester, trimester or quarter at another college must nevertheless present an official transcript from that college. Concealment of previous attendance at a college or university is cause for cancellation of admission and registration.

Unclassified

(Non-degree Seeking) Status

The College recognizes its obligation to students whose interests and backgrounds are not necessarily served through immediate participation in the College's degree programs but who could benefit from portions of the College's regular curriculum or special programs offered by the College. To meet this need, the College permits individuals to enroll as unclassified (non degree-seeking) students in both day classes (when space is available) and in evening classes. Such students include those whose prior academic records do not adequately document their ability to cope immediately with the demands of a degree program and who wish to demonstrate that they can do so, and those who desire to earn

academic credit applicable to a degree from another college or university. Unclassified students receive academic credit in the same manner as Classified students, and they are expected to meet prerequisite requirements for individual courses unless excused by the Dean of Academic Affairs because of occupational or other experience.

Requirements for Admission

An applicant without prior college attendance must (1) be a graduate of an accredited secondary school or (2) have earned a G.E.D. Certificate.

An applicant with prior college attendance will be considered on the basis of his or her college record(s). If an applicant has been placed on academic suspension by the college previously attended, he or she may be considered for admission to Christopher Newport College as an Unclassified student after a period of at least one semester or two quarters has passed.

An Unclassified student may be permitted to carry a full-time academic load if prior academic records indicate sufficient aptitude and preparation. In some cases, the applicant for full-time admission may be limited to a part-time or minimum full-time load for the first semester at the college.

Application Procedures

- (1) The applicant must fill out and submit to the Office of Admissions the form Application for Admission and the Statement of Residency.
- (2) The applicant must also provide data supportive of this application:
 - (a) A high school graduate must send an official transcript of his or her high school records.
 - (b) An applicant who has earned a G.E.D. Certificate must forward an official transcript of his or her high school record and an official transcript of the G.E.D. Certificate and scores.
 - (c) If the applicant has attended college but has earned less than 15 transferable semester credits, he or she must provide the applicable credentials mentioned in (a) and (b) above; have his or her college(s) forward the official college transcript(s); and have the registrar at the last college

attended as a full-time or degree-seeking student fill out the Certificate of Academic Standing.

- (d) If the applicant has attended college and earned fifteen or more transferable semester credits but has not been graduated, the applicant must have the college(s) send the official transcript(s) of his or her record and have the registrar at the last college attended as a full-time or degree-seeking student fill out the Certificate of Academic Standing.
- (e) If the applicant is a college graduate, the applicant must have the registrar at the college that graduated him or her signify such on the Certificate of Academic Standing.

Requirements to Change to Classified Status

Admission to the Unclassified status does not mean that a student cannot enter Classified status at a later date. While an Unclassified student may apply to be admitted into Classified status at any time, he or she must apply for such prior to enrollment in the last thirty credit hours applicable to a degree; however, in the case of the B.A. and B.S. degrees it is highly advisable that application be made prior to the last sixty credit hours applicable to the degree. Forms for this change are available from the Office of Admissions.

Application does not mean acceptance; acceptance comes only after an affirmative review of the applicant's records by the Committee on Admissions.

Medical Form

Any applicant, regardless of status, who plans to take a Physical Education activity course, must submit a completed medical examination form. This form will be provided at the time of admission and will be filed with the Physical Education Department.

Admission Based on Equivalency Tests

The College will consider for admission adults who have satisfactorily completed the military or civilian high school equivalency tests. In addition to the scores achieved on these tests and the certificate of equivalency, the College will require the applicant's partial high school record and

his or her scores on the Scholastic Aptitude Test. If the applicant lacks the necessary preparation in specific high school subjects, he or she may be admitted as a full-time student to the Basic Studies Program or may enroll as a part-time student in Basic Studies courses only. (See section entitled Basic Studies Department.)

Early Admission without High School Graduation

Students with strong academic abilities may be considered for admission following completion of the junior year of high school. Such students should have taken a well-rounded program of studies, including English, College-preparatory mathematics, science, social studies, and foreign language.

In addition to the high school transcript, Scholastic Aptitude Test scores, and application as a degree-seeking student, the applicant is encouraged to submit any special evidence of preparation for college, such as special projects, etc. The high school counselor will be asked to speak directly to the question of the student's maturity and readiness for college.

Any student interested in early admission should have an interview with the Dean or Assistant Dean of Admissions before filing an application.

Enrichment Program for High School Students

(College Attendance Prior to High School Graduation)

The College invites the above-average high school student who has completed the work of the junior year to apply for admission as a part-time Unclassified, non-degree seeking student in the High School Enrichment Program. A primary objective of this program is to bridge the gap between high school and college and to afford the college-bound student the experience of learning in the college setting prior to graduation from high school.

More than sixty courses from eighteen academic disciplines are available to the enrichment student. College credit for these courses is awarded and may be used toward a degree at Christopher Newport or may be transferred to another college or

university. The transfer and evaluation of credits earned in college level courses prior to high school graduation depends, however, on the decision of the receiving institution.

The applicant interested in this program should schedule an admission interview with the Assistant Dean of Admissions. During the interview, the details of the program will be discussed and application material will be issued. Special admission requirements include the following: (1) an above-average academic high school record in college preparatory courses and acceptable aptitude and achievement test scores; (2) an evidence of interest and determination to meet the challenge of college-level work; and (3) the recommendation of the high school principal, headmaster, or guidance counselor.

Since the College considers that the purpose of this program is for the academic enrichment of the student, enrollment in the program is limited to areas of study not normally available to the student in high school.

Basic Studies

Any student who registers for Basic Studies courses only, or who is limited to Basic Studies courses only at the time of admission, may not register for regular academic courses until his or her performance has been reviewed by the Basic Studies faculty and the Committee on Admissions.

International Students

Students who are not American citizens, whether applying for admission as Classified or Unclassified students, must have official transcripts sent directly to the Office of Admissions from all secondary schools and colleges attended. The Test of English as a Foreign Language (TOEFL) is required. Refugees in the United States who cannot obtain official copies of their academic records, must achieve a satisfactory score on a U.S. high school equivalency test. Students applying for Classified status must also submit their SAT scores.

International students should be certain that they have adequate funds before

coming to the United States for study. As a non-residential, state-supported institution, the College can provide neither dormitory facilities nor financial assistance to foreign citizens. Nevertheless, the academic community is enriched culturally and intellectually by its numerous foreign students, and the College presently serves students from many foreign countries. International applicants must complete applications for admission for the fall semester by July 1 and for the spring semester by November 15.

Senior Citizens

Senior citizens who are 62 or older and residents of Virginia have special opportunities for enrollment in Christopher Newport College and in all other state colleges. Senior citizens whose taxable income for federal tax purposes did not exceed \$5,000 for the year preceding the year in which enrollment is sought may register for and attend courses and pay no tuition and applicable required fees. A senior citizen who wishes to work toward a degree should apply as a degree-seeking student; citizens wishing to take courses for general interest should apply as Unclassified students. Enrollment in Non-Credit Courses (Continuing Education) or in Credit Courses as an Auditor. Regardless of income, senior citizens who are residents of Virginia may register for a maximum of three such courses per semester without paying tuition or fees.

Serviceperson's Opportunity College (SOC)

Christopher Newport College endorses the concept of assisting service men and women under the terms of the Serviceperson's Opportunity College (SOC) program, and has been designated by the Department of Defense as an SOC college. Because of the special needs of the Serviceperson and his or her family, the College (1) has an admission policy that recognizes the life conditions of servicepeople, (2) eliminates artificial barriers which hinder the educational progress of servicepeople and (3) provides special educational services to meet the special needs of servicepeople.

These are some of the features of the SOC program:

1. Courses are offered on local military bases during evenings and weekends.
2. Courses are offered in eight-week sequences rather than the traditional fifteen.
3. Special assistance is offered through tutorial services, specially qualified counselors, and the Basic Studies program.
4. Maximum credit is awarded for "non-traditional" learning through such programs as USAFL, CLEP, and certain types of education experiences in Armed Forces service schools.
5. Liberalized residence requirements are permitted in earning the baccalaureate degree (thirty hours total, twelve hours in the major area earned in residence at any time.)

One of the special features of the SOC Program at the College is that its benefits are extended not only to servicepeople but to their dependents as well.

Project Ahead

Christopher Newport College is a Project Ahead (Army Help for Education and Development) College.

Under this program, the individual enlists in the service and, at the same time, starts college. While in the service, he or she pursues a planned course of study leading to a Christopher Newport College degree at whatever accredited colleges are most convenient to his or her station of duty. CNC maintains a credit bank of all appropriate courses taken elsewhere and assures the student that, upon discharge or return to the area, these courses will apply to the appropriate CNC degree. The Army pays up to 75% of all tuition incurred.

Individuals interested in pursuing their studies under Project Ahead must have an interview with Christopher Newport College's Registrar and Dean of Admissions.

Evaluative Procedures for All Applicants

After all application materials have been received, they will be reviewed carefully and the applicant will be informed in

writing of the decision. In addition to weighing grades and test scores, the admission procedure of Christopher Newport College takes into account, where applicable, evidence of the applicant's maturity, professional or military experience, co-curricular activities, community involvement, letters of recommendation, and the applicant's own educational and career objectives as stated on the Application for Admission. Upon due acceptance, applicants are entitled to register and receive college credit for all work satisfactorily completed.

Occasionally an applicant for admission to Unclassified Status cannot obtain in time for registration the necessary supporting documents (transcripts, etc.). In this case, with the consent of the Dean or Assistant Dean of Admissions, he or she may be admitted as a Conditional Student. A conditional student requesting more than a normal part-time program may be considered for admission as a full-time student if he or she presents unofficial copies of his or her academic record. The College will be forced to cancel the registration of any student whose records, upon arrival, indicates that he or she is ineligible for admission. If a conditional student's records do not arrive by the end of the semester, the College will be unable to release grade reports, transcripts, or any other information concerning his or her scholastic record at Christopher Newport College.



Interviews

An interview is not routinely required for admission. Any applicant who desires an interview, however, is invited to contact the Admissions Office for an appointment. After admission, each student will be scheduled for a counseling interview to assist in planning his or her academic program.

Advanced Placement and Credit Earned by Examination

1. The Advance Placement Program of the College Entrance Examination Board.

This program offers to able and ambitious students the opportunity to qualify for advanced placement and credit in American history, art, biology, chemistry, English, European history, French, German, Latin, mathematics, music, physics, and Spanish. Applicants for advanced placement should plan to take the College Board Advanced Placement Test offered each May by secondary schools teaching Advanced Placement courses. The test results will be evaluated by the College and official notification of the decision sent to the student.

2. The College-Level Examination Program of the College Entrance Examination Board.

Christopher Newport College is a test center for the administration of the CLEP tests, both Subject and General. Interested students should contact the CLEP Center Administrator in the College Counseling Center.

No more than sixty semester credits attained through special institute or correspondence study, by examination (including CLEP), extension division study, or earned through advanced placement in an academic department may be applied toward the CNC degree.

a. Subject Examinations

Individuals who have acquired considerable knowledge of a subject through wide and careful reading, independent study, non-accredited instruction, or some other method now have the opportunity to earn college credit through examination. Subject exams currently are available in these areas: Introductory Accounting,

Afro-American History, American Government, American History, American Literature, Biology, Introductory Business Law, Introduction to Business Management, Calculus with Analytic Geometry, General Chemistry, Clinical Chemistry, College Algebra, College Algebra-Trigonometry, Computer and Data Processing, Fortran IV, Elementary Computer, Educational Psychology, English Composition, English Literature, Geology, History of American Education, Human Growth and Development, Analysis and Interpretation of Literature, Introductory Marketing, Medical Technology, Hematology, Immunohematology and Blood Banking, Microbiology, Money and Banking, General Psychology, Introductory Sociology, Statistics, Tests and Measurements, Trigonometry, Western Civilization, and Introductory Micro and Macro-Economics.

In order to earn credit at the College, students taking any of the tests must complete the optional essay section as well as the objective tests. In order to avoid the possibility of duplicated credit, students who have received collegiate instruction in any subject should consult with the Associate Dean of Academic Affairs before proceeding to attempt a CLEP Subject Exam in the same area. Students may take Subject Exams in their majors provided they plan to take at least twelve credits of work in their major at the College.

A Christopher Newport College student may take a Subject Exam in a course which he has failed, and receive credit for the subject when the CLEP test is passed with a qualifying score. A form for approval to take the CLEP test is available and should be filled out by the student in advance.

A transfer student who has a D in a subject taken at a college previously attended may take the CLEP examination in the subject with permission of the Associate Dean of Academic Affairs.

A list of examinations for which credit may be given and the scores required may be obtained from the CLEP Center Administrator in the Counseling Center.

b. General Examinations

Students planning to enter the College who have had no more than one

transferable course in a specific area covered by the General CLEP Exam and who, by their work or other experience, feel they have gained substantial knowledge, are eligible to take the General Examinations. It should be emphasized that the general-level examinations are equivalent to end-of-the-year exams and require more than a cursory knowledge of the areas. If all areas are passed, thirty hours of college credit can be earned.

Christopher Newport College will accept CLEP General Examination scores from other test centers, but credit for the CLEP score will be based on the CNC scale. A student who achieves the required score (35%) on the General Exams will receive six credits toward fulfilling the distribution requirements in these areas: English Composition (English 101-102); Humanities (six credits in humanities requirements); Mathematics (six credits for a beginning math course); Natural Sciences (six credits in science); Social Science-History (six credits of distribution in the social sciences).

3. Language Placement Examinations

Credit can also be earned in a foreign language by taking the foreign language test in French, German, Latin or Spanish. Successful completion of the examination can earn the student from four to fourteen hours and may satisfy the language distribution requirement.

Application for Placement Examinations must be made through the Chairman of the Department of Foreign Languages and Literatures.

G.I. Bill Certification

Christopher Newport College is approved by the Virginia State Approval Agency for the purposes of payment under Title 38 of the U.S. Code, Chapters 31, 34, and 35. These laws are commonly referred to as the "G.I. Bill."

Applicants who wish to attend the College using V.A. educational benefits should notify the Office of Veterans' Affairs as soon as possible prior to the beginning of their first semester at Christopher Newport.

Veterans should furnish the Office a copy of their separation/discharge papers (Form

DD-214) and should complete V.A. Form 1990 at their earliest convenience.

Active Duty individuals should contact their Education Services Office to obtain a V.A. Form 1990a. Upon completion, the form should be forwarded to the Office of Veterans' Affairs for processing.

V.A. benefits cannot be used to pay for audited courses, nor will the V.A. pay for Non-Credit C.E.U. (Continuing Education) courses. Counseling on all V.A. benefits is available in this office throughout its hours of operation.

Veterans Representative on Campus

Located in the Office of Veterans' Affairs, the V.A. Representative on campus assists individuals who wish to apply for disability compensation, dental and medical benefits, guaranteed home loans, education loans, vocational rehabilitation and other benefits of a non-educational nature. The "Vet Rep" is available in the Office of Veterans' Affairs two days a week. For further information, contact this office.

Auditing Students

An individual who wishes to take courses on an auditing basis should contact the Office of Admissions for a special application form. Auditors are not required to furnish any academic documentation.



Summer Session Applicants

Applicants interested only in summer session courses of study at the College should contact the Office of Admissions for a summer session bulletin which includes the application form for admission. The summer Session Bulletin is usually available by mid-April.

Fees & Expenses

With the approval of the proper authorities, the College reserves the right to make changes in tuition and other fees at any time.

In compliance with the policy of the other tax-supported institutions of the Commonwealth of Virginia, the College will require a non-refundable fee of \$10.00 to cover the cost of processing the application for admission as a classified student. A check or money order for \$10.00 made payable to Christopher Newport College, must accompany the preliminary application and is not to be considered as a partial payment on the normal tuition charges. If the student does not enroll in the semester for which he or she originally applies, the fee may be carried over only to the next semester.

No fee is required of anyone applying for admissions as an unclassified student. If the student wishes to change his or her status to classified, he or she must pay the required non-refundable fee of \$10.00.

Payment of Accounts

A deposit of \$25.00 is required of each new student to reserve his or her space at the College. This payment is applied on the student's regular college account. A student enrolling for the first time should not pay the deposit until notified of admission to the College. The deposit will be returned only if the notice of withdrawal is received in writing, postmarked no later than June 15 for the Fall Semester or December 1 for the Spring Semester. The College has established a procedure for the early registration for all classes, both for current and new students. Students should be aware, however, that no classes will be reserved unless they have paid or made arrangements to pay their tuition. Tuition and fees are due at the time of registration and registration has not been completed until all requirements of the Business Office have been satisfied. All checks should be

made payable to Christopher Newport College.

Tuition, Comprehensive and Registration Fees

The Tuition and Comprehensive Fees (\$26.00 per semester hour for in-state students and \$36.00 per semester hour for out-of-state students) are a payment toward the general maintenance and operating cost of the College. The Comprehensive Fee of \$5.00 per semester hour is non-refundable. The Registration Fee is \$5.00 per student per semester and is also non-refundable. Military students, enrolling under a plan in which the Armed Services pay part of the costs, need pay at the time of registration only that portion of the tuition fee for which the individual is personally responsible. Tuition assistance papers must be provided at the time of registration.

Deferred Payment Plan

To use the Deferred Payment Plan students must apply to the cashier for information and the appropriate forms. All previous semester charges must be paid in full to qualify for the current semester. Approximately forty percent, in no event less than \$100.00, of the total tuition and fees due must be paid initially, and the balance must be paid according to the established schedule. Students who use this plan must keep the cashier informed of address changes. The Deferred Payment Plan may not be used for CEU classes or where the tuition and fees amount to less than \$100.00. In accordance with State policy, all Delinquent Accounts must be referred for collection to the Attorney General of the Commonwealth of Virginia or a collection agency.

Veterans will comply with all instructions above with the single exception of their first semester at Christopher Newport College. In the case of first semester veterans, who expect late receipt of their

first check from the Veterans Administration, they may be so certified by the Veterans' Affairs Officer and be permitted to sign notes for all monies due.

An auditing Fee of \$26.00 is charged for each semester credit and should be paid at the time of registration for the course. The fee for a Continuing Education course is based on the number of Continuing Education Units (CEU) awarded for successful completion of the course. One CEU is equal to ten hours of contact with an instructor in an organized learning experience.

A person who enrolls in any such institution while not domiciled in Virginia does not become entitled to admission privileges, or reduced tuition charges or any other privileges accorded only to domiciliaries, residents or citizens of Virginia by mere presence or residence in Virginia. In order to become so entitled, any such person must establish that, one year before the date of his alleged entitlement, he was at least eighteen years of age or, if under the age of eighteen, he was an emancipated minor, and he abandoned his old domicile and was present in Virginia with the unqualified intention of remaining permanently in Virginia after leaving such institution. The burden of establishing these matters by convincing evidence is on the person alleging them.

Notwithstanding marriage to a person who is not domiciled in Virginia, a person who is classified or classifiable at the date of his or her marriage as eligible to receive the privileges herein described, may receive or continue to receive such privileges until he or she abandons his or her Virginia domicile other than through any presumption of law attaching to the ceremony of marriage."

Eligibility for Virginia Status

Domicile is a technical legal concept that refers to the place (state) where a person resides with the unqualified intention of remaining permanently and with no present intention of leaving. A person can have only one domicile at one time.

At the moment of birth one acquires the domicile of one's father, and this domicile will generally change with changes in the father's domicile until one marries, reaches eighteen, or becomes emancipated at any earlier age. (Should legal guardianship shift for any reason, including the father's death or parental separation or divorce, the child's domicile will be controlled by that of the mother or other legal guardian.)

A student whose father (or legal guardian) is and has been domiciled in Virginia for more than twelve months will be eligible for Virginia status if the student's domicile is controlled by his or her father's. A student whose domicile is controlled by his or her father's (or legal guardian's) will not be eligible for Virginia status unless the father or legal guardian has been domiciled in

Classification as a Virginia Student

The Code of Virginia 23-7 provides that: "No person shall be entitled to the admission privileges, or the reduced tuition charges, or any other privileges accorded only to domiciliaries, residents, or citizens of Virginia, in the State institutions of higher learning unless such person is and has been domiciled in Virginia for a period of at least one year prior to the commencement of the term, semester or quarter for which any such privilege or reduced tuition charge is sought, provided that the governing boards of such institutions may set up additional requirements for admitting students.

Virginia for at least the twelve months immediately preceding the date of claimed entitlement.

A student who has come to Virginia while domiciled in another may become eligible for Virginia status only after being domiciled in Virginia for twelve months. The student should carefully consider the meaning of *domicile* above and *Change of Domicile*.

A person may change his or her state of domicile by entirely abandoning the prior state of domicile with the *sincere and unqualified intention of remaining permanently* in the new state of domicile. There is a presumption in law that a domicile, once acquired, subsists until a change is proved, and the burden of proving the change is on the party alleging it. *The intention to abandon an old domicile is not sufficient; a new domicile must actually be acquired.*

Residence in a state for the purpose of acquiring an education at an institution in that state does not establish a domicile because the residence is established for a limited and temporary purpose. The student who wishes to change his or her domicile from another state and claim Virginia as the new domicile must establish by convincing evidence that he or she unqualifiedly intends to remain permanently in Virginia after graduation. Before being entitled to Virginia status, this student must wait one year from the time his or her domicile is shifted to Virginia.

Military personnel may reside in Virginia without being domiciled here, and military personnel domiciled in Virginia may reside elsewhere. A person who is absent from the State as a result of military service does not thereby lose his or her domicile; however, such a person must continue to meet the responsibilities of being a domiciliary of Virginia and must not claim any privileges accorded only to a domiciliary of any other state. The mere stationing of a military person in Virginia does not automatically constitute domiciliary.

Refunds to Students

Withdrawing from Classes

Students who wish to withdraw from the College must notify the College on a form

secured from the Office of the Registrar. No refund will be made to a student who withdraws unofficially or who has been required to withdraw by the College, regardless of the date of withdrawal. All refund checks come from the State Treasurer's Office in Richmond, Virginia. Subject to the following regulations and exceptions, all charges made by the College for fees are considered to be fully earned upon the student's completion of registration.

1. A student withdrawing from all classes or dropping a class prior to or during the period of registration is entitled to a refund of all reimbursable tuition payments, less the Comprehensive Fee and a Processing Fee. For example, a full-time (15 hours) State student who has paid \$395.00 would receive a full refund less the Comprehensive and Registration Fees of \$80.00 and a Processing Fee of \$63.00 for a total refund of \$252.00. In like manner, an Out-of-State student who has paid \$545.00 would receive a full refund less the Comprehensive and Registration Fees of \$80.00 and a Processing Fee of \$93.00 for a total refund of \$372.00. Students who enroll in but one three hour course would receive no refund regardless of date of registration or date of withdrawal, since a Tuition Fee of \$83.00/113 less Comprehensive and Registration fees of \$20 and a Processing fee of \$63/93 would reduce the refund balance to zero.
2. A student who withdraws from all classes or drops a class after the period of registration will not be entitled to a refund. The last day to request refunds will be January 30, 1978, for the Spring 1978 Semester; September 1, 1978, for the Fall 1978 Semester; and January 28, 1979, for the Spring 1979 Semester.
3. All students enrolled in a class which

the College cancels for any reason will receive a full refund of tuition and fees.

4. No refunds will be given for unofficial withdrawals or drops.
5. No refunds will be given for non-credit courses.
6. Military personnel who properly withdraw within the authorized drop period, due to bona fide change of station or temporary duty orders which preclude them from attending class, may receive a full refund of all tuition and fees. Presentation of official orders may be required.
7. All refunds are processed through the Registrar and Business Offices to the State Treasury. This procedure, therefore, may involve 90 days.
8. Any student, who wishes to take exception to any of the above, may address a letter containing full particulars to Christopher Newport College.

Non-Recurring Fees

Application Fee:	\$10.00
Graduation Fee: (includes diploma and regalia)	
Associate's	10.00
Bachelors	20.00

Incidental Expenses

It is impossible to estimate the exact costs of clothing, travel and incidental expenses, for these are governed largely by the habits of the individual. The cost of books depends somewhat on the courses taken, but for a full-time student for one year will seldom be less than \$150. Money for books cannot be included in checks covering college tuition and fees. Books should be paid for in cash or by separate check when purchased.

Withholding of Transcripts

and Degrees in Case of Unpaid Accounts

Transcripts or any other information concerning scholastic records will not be released until college accounts are paid in full. Degrees will not be awarded to persons whose college accounts are not paid in full.

Cashing of Student Checks

The College does not have facilities for handling deposits for student's expenses, but the Business Office is prepared to cash checks up to \$25.00. Checks should be made payable to cash. Two-party checks will be cashed only when made payable to the student by his parent. Under our regulations as a State institution, we are not permitted to cash checks made payable to Christopher Newport College.

Student Life Responsibilities

Registration as a student at Christopher Newport College implies that the student will accept certain responsibilities which are essential to membership in the college community. A minimum number of rules and regulations provides an atmosphere of freedom and responsibility.

The discipline of the College is vested in the President by the action of the Board of Visitors. Infractions are considered by the Discipline Committee which represents administration, faculty, and students. The College reserves the right at any time to suspend or dismiss a student whose conduct or academic progress is, in its judgment, unsatisfactory. Regulations governing conduct and student life are printed in the *Christopher Newport College Student Handbook*.

Student Dress

A student's dress and general appearance are considered to be a matter of personal taste. Courtesy and a concern for the rights of others, however, dictates that they be appropriate to the place and occasion. Students are expected to maintain standards of dress and comportment which are

generally acceptable at the College and in the community.

Parking Regulations

Students who wish to use College parking facilities must register their automobiles with the Director of Auxiliary Services, at which time an identification sticker will be issued. Students parking unregistered vehicles in College parking areas will be subject to a fine. All students are expected to park in the designated lots. Regulations concerning parking will be distributed with automobile registration information.

Rights

At Christopher Newport College, students, faculty, and administrators are considered vital in the educational process. While it is recognized that each of these groups has its own role in this process, it is also understood that cooperation and mutual respect are necessary for a significant learning experience to take place. Students play a major role in determining their own affairs in at least three areas: student government, the Code for Academic Work, and certain faculty committees.

Student Government Association

All regularly enrolled students at Christopher Newport College are members of the Student Government Association. The powers of the Student Government Association include control over all student activities and are vested in regularly elected officers.

Code for Academic Work

The Academic Hearing Board is composed of three students, nominated by the executive council of the Student Government Association and voted on by the student government assembly, and three faculty members elected by their colleagues. In addition to the Academic Hearing Board, there is a Hearing Examiner, a member of the faculty appointed by the President of the College, who presides and fills the role of nonvoting chairman. The Academic Hearing Board is given authority over the College's Code for Academic Work.

All students accept the jurisdiction of the Student Government Association, the College's Code for Academic Work, and regulations governing conduct and student life as

they affect them both academically and socially and as they are explained in the *Student Handbook*.

Faculty Committees

Students are given a voice in College affairs through representation on appointed student personnel services committees and appointed and certain elected faculty committees. Appointed by the Student Government Association, students now serve as members on the following committees: Affirmative Action, Athletic, College Shop Advisory, Graduation, Health Services, Curriculum, Student Responsibility and Academic Work, Campus Center Activities, Student Activities.



Activities

Athletic Program

Intercollegiate activities offered are basketball, cross-country, indoor and outdoor track, golf, tennis, soccer, women's volleyball. A strong intramural program is offered under the sponsorship of the Student Activities Committee. Activities include flag football, basketball, volleyball, table-tennis, softball, badminton, archery and horseshoes. Further athletic activity is available through a strong club sports program. Athletic organizations sponsored by the Student Activities Committee and open to both men and women include the fencing



club, gymnastics club, karate club, sailing club.

The College teams play under the name "Captains." The College colors are royal blue and silver.

Organizations

Christopher Newport College encourages students to participate in the extracurricular life of the College as well as its academic life. A number of social, religious, service, and interest organizations have been established on campus and are listed and described below. Students interested in creating additional clubs are encouraged to consult with the Dean of Student Affairs.

ALPHA KAPPA PSI NATIONAL BUSINESS FRATERNITY (Iota Pi Chapter) strives to relate the business degree to the business community, instill the principles of good management, and to provide through group activity the environment necessary to accomplish these aims.

BAPTIST STUDENT UNION presents a practical and biblical concept of Christ and his teachings and promotes Christian fellowship among the student body.

BIOLOGICAL SOCIETY OF CNC strives to provide discussions of current topics of interest and provides service to the College.

BLACK STUDENT ASSOCIATION works toward a closer relationship between black students and the rest of the College community.

BRIDGE CLUB OF CNC promotes general interest in bridge and provides instruction and the opportunity for competition to interested students.

CHESS CLUB OF CNC promotes a general interest in chess and provides instruction in chess at all levels.

CHI PSI OMEGA FRATERNITY promotes service, good fellowship, and high scholarship among its members.

CHRISTIAN SCIENCE ORGANIZATION at the College holds weekly testimony meetings for all interested persons and sponsors an annual lecture to help promote religious understanding on campus.

CHRISTOPHER NEWPORT ASSOCIATED PHOTOGRAPHERS (CNAP) promotes interest in photography, provides instruction in photography for members, and maintains the darkroom facilities in the Campus Center.

CIVITAN CLUB is a service and citizenship-oriented organization sponsored by Civitan International.

CNC PLAYERS is a group of students who are interested in all aspects of the theatre and who produce a number of plays.

CONCERT MUSIC CLUB promotes the appreciation and performance of concert music.

DISTRIBUTIVE EDUCATION CLUB furthers the aims and purposes of the DE program at the College.

FENCING CLUB OF CNC provides instruction and participation in fencing for interested students.

GOVERNMENT CLUB strives to create student and faculty interest in public affairs, to develop career opportunities, and to improve educational opportunities.

GYMNASTICS CLUB provides opportunities for the unskilled as well as the skilled to train and practice activities on various gymnastics equipment.

HISTORY CLUB encourages an interest in history and related fields through films, discussion, and in field trips.

HONOR SOCIETY - ALPHA CHI NATIONAL COLLEGE HONOR SCHOLARSHIP SOCIETY (Zeta Chapter) whose objective is the stimulation, development and recognition of scholarship and those elements of character that make scholarship effective for good.

HORTICULTURE CLUB promotes an interest in the cultivation and enjoyment of plants.

INTERNATIONAL CLUB furthers a better understanding of languages and cultures of the members of the club and shares these understandings with the student body.

INTRAMURALS ACTIVITIES COUNCIL aids the division of Intramurals Activities of the Department of Health and Physical Education in encouraging the student body to participate in wholesome and active recreation.

KARATE CLUB OF CNC provides expert instruction in the philosophy and technique of karate.

MODERN LANGUAGES CLUB OF CNC (French, German, Spanish) encourages students to use the languages in an informal setting through the presentation of slides and conversations with native speakers.

ORGANIZATION FOR WOMEN'S EQUALITY explores the issue of equal opportunities for both sexes in all fields of endeavor and promotes discussion of these ideas among the student body.

OUTING CLUB provides students opportunities to participate in such activities as hiking, camping, canoeing, bicycling and portaging.

PI KAPPA SIGMA SORORITY encourages leadership and fellowship among its sisters and promotes the College in the community.

PSYCHOLOGY CLUB provides students the opportunity of serving the College and community through academic program and service.

SAILING CLUB OF CNC promotes sailing among students and faculty. Skilled members form a team for intercollegiate racing.

SOCIOLOGY CLUB stimulates interest in sociology and social welfare; provides service to the College; promotes cooperation between students and faculty; provides opportunities for informal interaction among the members.

VETERANS' ASSOCIATION aids and gives counsel to incoming veterans; promotes higher scholastic achievement among members and provides social activities for the student membership.

VIRGINIA EDUCATION ASSOCIATION - CNC CHAPTER brings together members of the student body, faculty, and staff to provide programs which foster better understanding of the teaching profession.

Publications

The College encourages students interested in journalism, creative writing, art, and photography to investigate the student publications listed below:

THE CAPTAIN'S LOG, the College's official student newspaper, affords practice in journalistic writing, advertising, and photography.

THE UNDERTOW, the campus literary magazine, publishes the creative art work, writing and photography of interested students.

Counseling Center

The Counseling Center offers a wide range of services designed to meet a variety of student needs. Both the individual and group counseling programs of the Center are designed to enhance personal and interpersonal growth, and clarify any problem, decision, or situation difficult to resolve alone.

Counselors and psychologists in the Center have a wide variety of experience in

working with people, both individually and in groups. Students may discuss with them, freely and in confidence, their feelings, problems or interests, such as educational and vocational decisions, marital or family problems, and personal conflicts. During the academic year, the Center sponsors numerous workshops revolving around the development of life skills, resolving life themes, or managing life transitions. Testing or test information is also available.

The Center provides for entering new students the opportunity to take appropriate placement tests and participate in academic program planning. This process allows the new student to select courses which are consistent with his/her own interest and academic background.

Students may participate in the College Level Examination Program administered by the Center. CLEP examinations are scheduled monthly.

Students may make an appointment with a counselor either by stopping at the Center in Wingfield Hall, Room 116, or by calling. Appointments are usually available immediately or on the same day. Students may make evening appointments also.

Career Placement

The Office of Career Planning and Placement of CNC offers the following services to the students and alumni: arranges on and off-campus interviews for part and full-time employment throughout the year, offers several career planning seminars during the academic year, issues a weekly newsletter containing pertinent educational and employment information, and provides career literature. The location for several of these services can be found in the Campus Center, Room 208.

Financial Assistance

General Information

The purpose of the College's financial aid program is to provide assistance to qualified students who without such aid would be unable to attend. Aid is awarded primarily on the basis of need as determined by the College Scholarship Service (CSS) system. Colleges participating in this program subscribe to the principle that the amount of financial assistance provided by the institution should be viewed as supplementary to the efforts of the family. The



recipient of financial aid may apply for renewal provided satisfactory progress is maintained and need re-established.

Types of aid include scholarships or grants, loans and employment. Because all scholarships are provided by the Commonwealth of Virginia or by local organizations or individuals, they can be offered only to Virginia residents. Loans, grants and employment are available to eligible out-of-state students. In order to be eligible for any Virginia Scholarship or Loan Program, an applicant with an established need is required to be accepted for enrollment as a full-time classified student (minimum 12 hours). In the case of the Federal Programs, the student must be enrolled for at least half-time (minimum six hours).

Christopher Newport College does not discriminate on the basis of race, color, religion, sex, national origin, or handicap.

Estimated Costs

The College reserves the right to adjust tuition and other charges because of rising costs and other conditions. The estimated costs for an academic year (two semesters) for the average commuter student are as follows:

Tuition and Fees*	\$ 790
Books and Supplies	175
Maintenance Allowance	850
Personal	400
Transportation	400

Total Estimated Costs \$2615

*Add \$300 for out-of-state students

Application Procedures

A single basic application for financial aid filed with the College and supported by a need analysis form from the College Scholarship Service (CSS) places a student in consideration for each program administered by the College. Starting with the 1978-79 academic year, applicants who are also applying for Federal and State administered programs may do so by making appropriate entries in the CSS Virginia Financial Aid Form (VFAP) used in the need analysis for the College. Therefore, separate applications for the Basic Educational Opportunity Grant (BEOG) and the Virginia College Scholarship Assistance Program (CSAP) are no longer required. Applicants who are eligible to apply for BEOG and CSAP must apply for these programs when applying for other financial assistance at Christopher Newport.

Any classified student or prospective classified student who will be taking at least six semester hours may apply for financial aid. No application can be acted upon until the student is admitted. Applications and CSS need analysis results for the academic year for the College administered programs should be received by the College no later than May 1 so that the student may receive full consideration. Late applicants will be considered as funds permit. The deadlines for the spring semester and summer sessions are November 15 and April 15 respectively; awards are contingent upon availability of funds.

The Virginia Financial Aid Form (VFAP) must be filed by March 31 in order to apply to the State Council for the Virginia CSAP program. Virginia students who are also applying for the BEOG and College ad-

ministered programs should make the appropriate entries in this same VFAP. Be sure to indicate Christopher Newport College (CSS Code Number 5128) in the "Institutions and Programs to Receive This FAF" section of the VFAP.

The necessary forms may be obtained from the College's Financial Aid Office. The Virginia Financial Aid Form (VFAP) may also be obtained from most high school counseling offices; from the State Council of Higher Education, 700 Fidelity Building, Ninth and Main Streets, Richmond, Virginia 23219; and from the College Scholarship Service, Box 176, Princeton, New Jersey 08540 (for the FAF). Non-Virginia residents may use the VFAP by crossing out the Virginia Council of Higher Education in the "Institutions and Programs to Receive This FAF" section.

If you require financial assistance to attend Christopher Newport College, do not hesitate to apply. For the necessary forms and further information contact:

Director of Financial Aid
Christopher Newport College
P. O. Box 6070
Newport News, Virginia 23606
(804) 599-7170

-or-

visit the Captain John Smith Library, Room 121.

Scholarships and Grants

Basic Educational Opportunity Grants [BEOG]: Authorized under the 1972 Higher Education Act, it is estimated that grants to qualified students will probably range from \$200 to \$1600 per year depending on family contribution, not to exceed one-half the cost of attendance at the institution. Application may be made by making the proper entry in the Virginia Financial Aid Form (VFAP). Students who are applying for other aid from the College must apply for the BEOG. The student will receive a Student Eligibility Report (SER) directly from the BEOG Program which he must submit to the College in order for the award to be made.

Supplemental Educational Opportunity Grants [SEOG]: A federal aid program that

provides assistance to students with exceptional need. The grants range from \$200 to \$1500 a year up to \$4000 for a four year program.

Law Enforcement Education Program [LEEP] Grants: Available to eligible law enforcement officers for part-time study in law enforcement. The application process consists of an interview with the Director of the Criminal Justice Program followed by completion of the LEEP Student Certification and Note.

Virginia State Student [Undergraduate] Scholarships: The General Assembly has allocated funds to the College for scholarships to eligible full-time students who are Virginia residents.

College Scholarship Assistance Program [CSAP]: A need-based program for full-time students in Virginia state-supported colleges. Application is made by making the proper entries in the VFAP. Virginia students who are applying for other aid from the College must apply for the CSAP. The applicant will receive a notification of eligibility directly from the State Council which he should provide to the Business Office.

Private Scholarships: Made available by local donors in varying amounts, are based on need and other special features prescribed by the donor.

Private Scholarships:
Coats and Clark, Inc. Scholarship

A grant established in 1967, this scholarship awards \$500 per academic year to an entering freshman, preferably a resident of the Peninsula area. Special consideration will be given to children of employees of Coats and Clark, Inc. Upon application, the scholarship may be renewed.

Daisy Garland and Sidney Harmon Scholarship Foundation

This foundation, established by a bequest from the late Robert M. Usry, first faculty member of the College, provides scholarships annually from its earnings to rising seniors at Christopher Newport College. The awards are based on scholarship, leadership, self-discipline, cooperativeness, and contribution to student life on the campus. Recipients will be selected by a

committee chaired by the Dean of Student Affairs.

Hampton-Newport News-York County City Panhellenic Scholarship

This is a grant of \$400 per academic year, made on the basis of need and academic qualifications, to a full-time woman student who is entering her sophomore year and who plans to further her college education.

Hampton Roads Jaycettes Scholarship

A grant of \$200 per academic year will be made to a full-time woman student.

Hatten Memorial Fund

Established in September, 1965, by Mr. Earl R. Hatten in memory of his late wife, Leone Quackenbush Hatten, a grant of \$10,000 has been invested by the College, and the earnings from this fund are being used for scholarship purposes for deserving senior students.

Iota Pi Scholarship

A \$100 scholarship presented by the Christopher Newport College Chapter of Alpha Kappa Psi to a deserving student majoring in business.

The Junior Woman's Club of Hilton Village Scholarship

A scholarship fund established in 1961 provides assistance to needy students. Scholarships will vary according to the individual student's need.

Leon Hodge Memorial Scholarship Fund

This fund was established in 1970 in memory of Leon Hodge. Its continuance is made possible by contributions from friends of the late Mr. Hodge.

The Remco Office Equipment Co., Inc. Business Education/Distributive Education Scholarship

A grant established in 1976 by the Remco Office Equipment Co., Inc. This scholarship awards \$150 per academic year to a worthy and needy student who is a resident of Hampton, Newport News, or York County.

Tenneco Foundation Scholarships

The Tenneco Foundation has made available through its Newport News Shipbuilding and Dry Dock Co. subsidiary scholarship funds to aid worthy and needy students.

Robert Madison Usry Memorial Scholarship

This grant was established in 1971 by the Pi Kappa Sigma Sorority in memory of

Robert Madison Usry, Assistant Professor of History at Christopher Newport College from 1961 until his death in January, 1971. The scholarship awards \$100 for the academic year to a junior or senior degree-seeking woman student.

Robert M. Usry Scholarship Foundation

The will of the late Robert M. Usry, Assistant Professor of History at Christopher Newport College from 1961 to 1971, provided for the establishment of this foundation. Income from the foundation is used to establish scholarships for student athletes to be awarded at the annual Christopher Newport Commencement exercises. In making these awards consideration is given to the student athlete who has attained a varsity letter as well as scholastic achievement. Recipients will be selected by a committee chaired by the Director of Athletics.

Tom Fiscella Memorial Scholarship

A grant established in 1971 by Mr. and Mrs. Ben Fiscella in memory of their son, this scholarship awards an amount equal to the session tuition for a Virginia student. Upon application, the scholarship may be renewed.

Thomas J. Hundley Award

A grant was established in 1969 by the Newport News-Hampton Board of Realtors. The scholarship, based on need, awards \$400 to a local resident who will have attained senior status.

Loans and Employment

National Direct Student Loans (NDSL):

Eligible students receive loans up to \$2500 for their first two years in college and \$5000 for their total undergraduate programs. Students begin paying back these loans after graduation with up to 10 years to repay. No interest is charged until repayment begins and then a three per cent charge is applied to the unpaid balance. No payments are required for up to three years while serving in the Armed Forces, Peace Corps, or VISTA.

Virginia State Student Loan: The General Assembly has allocated funds to the College for loans to eligible full-time students who are Virginia residents.

Guaranteed Student Loan Program (GSLP): Administered by the State

Education Assistance Authority. Students who are Virginia residents apply directly to participating banks and other lending institutions. The commercial lending institution, not the College, makes the loan directly to students, not to their parents. The maximum loan is \$2500 a year.

The key factor in obtaining a guaranteed loan is in the student's finding a lender who is willing to make the loan. Prospective non-Virginia borrowers should contact participating lending institutions in their home localities. Applications for the GSL are obtained from the prospective lender.

The John Stephen Rasmussen Memorial Fund

This emergency loan fund was established by the community in 1972 in memory of John Stephen Rasmussen, a 21 year old student who lost his life in a fire while in the act of saving others. He was posthumously awarded a Carnegie Medal. Students may borrow, interest free, up to \$100 (funds permitting) for a period not to exceed sixty days.

Emergency Loan Fund

An emergency loan fund was established in 1967 by the Sophomore Class in honor of J. C. Windsor. Students may borrow, interest free, up to \$50 (funds permitting) for a period not to exceed thirty days. Applicant should have student Identification Card available when applying to the Financial Aid Office.

College Work-Study Program (CWSP):

The College in cooperation with the Federal Government offers employment for students, especially those from low-income families, who need a job to help pay for college expenses. Students must be enrolled on at least a half-time basis.

Students interested in other types of employment should contact the College Placement Office.

Veterans

Veterans apply for educational benefits through the V.A. Dependents of disabled or deceased veterans may also qualify for educational benefits. For further information, contact the Vet Rep on campus.



Academic Policies and Regulations

The academic policies stated hereafter apply to all students who register at Christopher Newport College.

Program Planning

Prior to registration for classes, the Counseling Center administers several placement tests to freshmen and new transfer students. Each freshman and unclassified student then meets with a counselor to discuss the results of these tests and to plan a program for the coming semester. Other students are assigned to faculty advisers who are available for academic counseling. Any student may arrange for an individual conference with a faculty adviser or with any of the counselors. Students currently enrolled should plan their programs for the following semester with their faculty advisers in the spring or late fall.

Full-Time and Part-Time Students

The normal full-time student load includes a minimum of twelve credits and a maximum of seventeen credits, fifteen credits being considered a normal full-time load. Full-time students are expected to carry this load if possible. A student is classified as "part-time" if during any semester he or she is registered for eleven credits or less. Any student may elect to be a part-time student if circumstances demand it. In addition, the College may either require or counsel a student to carry a part-time load for academic or other reasons.

Overload Schedule

With the written consent of his or her adviser, a student may carry eighteen semester credits in a semester or fifteen semester credits in the summer session. Any student desiring to carry more than eighteen semester credits in a semester or fifteen semester credits in a summer session must petition the Committee on Academic Status before registration. This petition must be submitted in writing to the Registrar. The Committee may grant permission to carry such an overload to the exceptionally able student or to a student with special circumstances.

Registration for Classes

The College has established a pre-

registration procedure for the fall and spring semesters and the summer session. This procedure is published prior to each semester in time for students to take advantage of this option. The student who pre-registers for the fall semester must pay all tuition and fees or make other arrangements with the business office by the announced date in August; the student who pre-registers for the spring semester must complete all financial arrangements with the College by the announced date in January in order to reserve class spaces. The student who enrolls only in evening classes and wishes to pre-register is subject to the above regulations concerning tuition and fees.

The student who registers early and completes all financial arrangements with the College by the prescribed time is not required to be present on the designated days for general registration and needs only to begin his or her classes at the designated times. Freshmen and transfer students are expected to attend orientation prior to the designated days for general registration.

The student who wishes to enroll in classes but did not preregister must be present on the designated days for general registration (see the College Calendar for the exact date). A student may register at another time only with the permission of the Registrar. All financial arrangements must be completed before registration is valid.

Changes in Registration

After registering for a program of courses, whether in day or evening classes, the student can make course changes only through application to the Registrar. The change is recorded on the student's registration card, and the student's instructors are notified. Unless a course change is made in this manner, it has no official standing and will not be recognized as valid by the College.

Changes During the Add/Drop Period

Registration is normally open for approximately five academic days at the beginning of each semester. During this time, a student may add or drop courses or make

schedule changes. No schedule changes may be made after this period (see the College Calendar for exact date). Courses dropped during the add/drop period do not become part of the student's permanent record.

Changes During the Drop Period

No courses may be added after the add/drop period, but courses may be dropped for justifiable reasons. A "Request to Drop Course" form must be obtained from the Registrar and signed by the student's adviser and instructor. For a period of approximately six weeks (see College Calendar for exact date), a student may drop a course without grade penalty. The notation "Dropped" will be made on the permanent record card. After the drop date, a student may drop a course under these conditions: (1) if the student is failing the course, he or she may drop it with a grade of F; (2) if the student is passing the course, he or she may drop it without a grade penalty with the permission of the student's adviser and instructor.

No student may drop a course after the last day of classes before the examination period (see the College Calendar for exact date).

Auditing A Class

A student may audit a course with the approval of his or her advisor if class size permits. An auditing fee of \$26.00 each semester credit is charged. The student registered on an audit basis is subject to attendance regulations as specified by the instructor, but is not required to take tests or the final examination. With the instructor's permission, the student may do any of the required assignments. The student who audits a course receives no grade, but his or her permanent record card will indicate "Audit" for that class. A change from "Audit" to "Credit" may be made only during the add/drop period. Out-of-State students must make the necessary financial arrangements before the change is effective. A change from "Credit" to "Audit" cannot be made after the official date for dropping courses without grade penalty.

Late Registration Fee

A non-refundable fee of \$15.00 will be charged each student who registers subsequent to the regular scheduled registration period. Scheduled registration Spring 1978 is January 10-11; Summer 1978 is June 5; and Fall 1978 is August 22-23. Registration after these dates will be considered late registration and subject to the late registration fee.

Absence from Classes

The College expects that students will regularly attend all of their scheduled classes. An educational system based largely upon classroom instruction and analytical discussion depends upon the faithful attendance of all students in the course. Irregular class attendance detracts from the student's learning and prevents participation in the important intellectual exchanges that occur among students and instructors. Therefore, the College expects and encourages regular attendance. The College does not, however, establish specific attendance policies, for this is considered the right of each instructor. A student who is dropped from a course upon the instructor's recommendation because of excessive absences will receive a grade of F. If excessive absences are caused by an extreme emergency and the student is penalized by the instructor, the student may appeal to the Committee on Academic Status.

Other regulations are as follows:

1. If a student misses a class meeting, it is his or her responsibility to cover the missed material.
2. Instructors may differentiate between excused and unexcused absences and authorize make-up tests when appropriate.
3. Attendance regulations, as specified by the instructor, apply to students who are auditing a course. The instructor has the right to certify on the student's academic transcript that the auditor's attendance was "not regular."

Official Withdrawal from the College

As defined by the College, "withdrawal" means that the student ceases to attend all

classes and is no longer considered enrolled in the College. Any student who desires to withdraw from the College should do so through application to the Registrar. The withdrawal is recorded on the student's permanent record card, and the student's instructors are notified. Unless a withdrawal is made in this manner, it has no official standing and will not be recognized as valid by the College. No student may withdraw after the last day of classes before the examination period. If a student withdraws from the College prior to the deadline following mid-semester (see the College Calendar for exact date), the grade notation W will be entered for each course taken. If a student withdraws after the deadline, the grade notation WP will be entered for each course which the student was passing and a WF for each course which the student was failing at the time of withdrawal.

Unofficial Withdrawal

A student who withdraws from the College without notifying the Registrar will receive a grade of F in each course taken. The notation "Grade of F assigned because of unofficial withdrawal" will be made on the permanent record card.

Readmission after Withdrawal

A student who withdraws may seek readmission for any semester, provided he or she is in good standing, by writing to the Dean of Admissions for an application for readmission. A student who withdraws with WF in half or more of his or her courses will be considered in the same way as a suspended student and must formally request reinstatement in good standing by the Committee on Academic Status after at least one semester has elapsed.

Examinations

The examinations given at the end of each semester take place at times announced at least two weeks in advance of the first scheduled examination. Students are required to take all of their examinations at the times scheduled unless excused as noted below (see section **Absence from Examinations**). The College does not authorize re-examination. No changes will be permitted unless conflicts occur or unless the student has examinations sched-

uled in four consecutive periods. Applications for changes in the schedule for the above reasons should be made to the Registrar prior to the last day of classes before the examination period begins.

Absence from an Examination

A student may request to be excused from taking an examination at the scheduled time by presenting a significant reason for the expected absence to the instructor before the examination. An excuse on the grounds of illness will be accepted when it is verified by a physician and received by the Registrar. The instructor should be notified as soon as possible if illness or any other emergency causes a student to be absent from an examination. If the instructor cannot be contacted, the student should notify the Registrar.

Incomplete or Absence from the Final Examination

An I is given when the student has postponed, with the consent of the instructor, the completion of required work or when the student was absent from the final examination because of illness or any other emergency. If the postponed work has not been completed by the end of the next semester, the I automatically becomes an F. Unless a deferred examination is permitted by the Committee on Academic Status, an I given as a result of absence from a final examination automatically becomes an F at the end of the next semester.

Deferred Examinations

A deferred examination is provided for a student who has been excused from taking an examination at the scheduled time. The student should arrange with his or her instructor to make up the examination as soon as possible. Except under very exceptional circumstances, the student is not permitted to postpone the taking of a deferred examination beyond the first occasion provided. In no case will permission to take a deferred examination be extended beyond a year from the time of the original examination from which the student was absent.

System of Grading

Grades are assigned according to the letter system and carry the following grade point values:

Grade Symbol and Meaning	Grade Point Value per Semester Credit Hour
A-Superior	4
B-Good	3
C-Passing	2
D-Passing	1
F-Failing	0
P-Passing	0
I-Incomplete	0
NG-No grade reported	-
WF-Withdrew while failing	-
WP-Withdrew while passing	-
W-Withdrew	-
(no grade penalty)	-
DR-Course dropped	-
(no grade penalty)	-
S-Continuing Education	-
Unit courses only: course satisfactorily completed	-
T-Continuing Education	-
Unit courses only: course not completed and no CEU awarded	-

Grade Point Average

The grade point average is computed by dividing the total number of academic hours carried into the total number of grade points earned. Course work taken elsewhere will not be included in computation of the GPA.

Grades for Repeated Courses

A course in which a grade of D or F has been earned may be retaken with the permission of the student's adviser. The original grade, grade points, and a new grade and grade points will be entered on the student's permanent record. Only the grade for the most recent enrollment and its credits and grade points will be counted toward the degree. Credits earned for the course may be counted only once toward the degree. The cumulative grade point average will be determined in cases of a retaken course by including only hours carried and grade points earned in the most recent enrollment in the course. Required or distribution courses in which an F has been earned may be repeated no more than

twice (for a total of no more than three enrollments). Other courses in which an F has been earned may be repeated only once (no more than two enrollments).

Pass-Fail

Seniors may take one elective course each semester, distribution and major courses not included, for a maximum of two courses on a pass-fail basis. The student must declare his or her intention of taking a course on a "pass-fail" basis by the official date for dropping a course without grade penalty. A passing grade will count toward graduation but will not be used in determining the grade point average.

Grade Reports

A grade report is sent at the end of the semester to each student and (where applicable) to his or her parents or guardian. In addition, the mid-semester grade report sent to every freshman indicates the progress in each course at that point. A mid-semester grade report is not sent to an unclassified student. Mid-semester grades are not recorded on the student's permanent record card.

Dean's Academic Honor List

A student who in any semester has been enrolled in at least 12 credit hours and has earned no grade below a C in academic subjects and who makes a grade point average of at least 3.25 is placed on the Dean's Academic Honor List for the following semester.

Continuance in College

Through an instructional program supplemented by counseling and faculty advising, the College attempts to give students every encouragement to maintain a satisfactory level of achievement. The College expects the student to make reasonable academic progress. Unless the student demonstrates the incentive and ability to meet the minimum scholastic requirements, the College cannot justify the student's continuance at the College.

Minimum Standards for Continuance

While evaluation of academic progress is made at the end of each semester, the evaluation of the student's academic record is generally not made until the completion of twelve credit hours. The unclassified student will have his or her academic record

evaluated at intervals of twelve semester hours, this evaluation being done in the best interests of the student and in consideration of the student's stated goals.

The student who achieves less than the minimum standard as stated below will be considered by the Committee on Academic Status either for suspension or probation. The student who achieves the minimum standard but who does not make reasonable progress in any given semester will receive a written warning from the Committee on Academic Status.

Number of Credit Hours Attempted	Minimum Required Percentage of Hours Passed	Minimum Required Overall Grade Point Average
12-15	50%	1.00
16-24	60%	1.25
25-36	66%	1.50
37-48	70%	1.66
49-60	74%	1.70
61-72	80%	1.75
73-90	85%	1.80
90 and above	85%	1.85 or better

In addition to meeting this minimum standard of performance, the student is expected to maintain each semester at least a 2.0 average in his or her major field of study. A student who falls below this average in his or her major will be placed on probation.

The student who withdraws with WF in half or more of his or her courses will be considered in the same way as a suspended student. The notation "may not enroll without permission of the Committee on Academic Status" will be placed on his or her permanent record card. A full-time student who receives an I in half or more of his or her courses must make up the incomplete work before registering for the following semester or must obtain the permission of the Committee on Academic Status to re-enroll.

Transfer students will be expected to meet the minimum requirements for the total credit hours attempted at the College and the total number of credit hours accepted by the College as transferable from the previous college(s) attended. Transfer students who make little or no

progress toward graduation after fifteen credit hours at the College will be considered for academic warning, academic probation, or suspension.

A student who is not profiting from his or her stay at the College or whose influence is considered detrimental to the best interests of the College may be required to withdraw.

Academic Warning

Any student who has earned a minimum standard for continuance but who has not made reasonable progress in any given semester will be issued a letter of academic warning. This letter will review the student's progress to date and may require the student to limit his or her academic load. No notation will be made on the permanent record card.

Probation

Any student approaching the minimum standards for continuance will be considered for probation. The student on probation may register for no more than four courses while on probation, and the notation "Academic Probation" will be placed on the permanent record card. If a student on probation pre-registers for more than four courses, the pre-registration will be cancelled, and the student must return to his or her counselor or faculty adviser for a new form.

When the student achieves the minimum requirement for the hours he or she has carried, probation may be removed. A statement to this effect is then placed on the permanent record card. If the Committee believes that the student is progressing at less than the minimum level, probation may be continued.

The Committee will continue on probation any student who is making marked progress toward meeting the minimum requirement, but only under unusual circumstances will the Committee allow a student to remain on academic probation for more than two consecutive semesters. If at the end of two semesters the student has not met the minimum standard for the number of hours carried, the student will be suspended.

If the Committee on Academic Status concludes that a classified student is

making little progress toward a degree, it may change the student's status from classified to unclassified. This action will enable a student to enroll as an unclassified student in certain courses of interest to the student. A statement to this effect will be entered on the permanent record card.

Suspension

The student who is suspended may not register for credit in any classes at the College except with the consent of the Committee on Academic Status. The notation "Required to withdraw for academic deficiencies" is placed on the permanent record card. If a student suspended from the College is permitted by another college to take courses at that college, he or she should realize that credit hours earned while not in good standing may not be acceptable as credit at Christopher Newport College.

Reinstatement

Procedures after Suspension

Any suspended student who wishes to reenter the College after at least one semester (excluding the summer session) has elapsed must apply to the Committee on Academic Status to be reinstated in good standing. Most colleges will not consider for admission a student who is not in good standing at his or her former college; therefore, reinstatement at Christopher Newport College should be sought before application is made to another college. Students who have been asked to withdraw twice may apply for reinstatement, but it must be pointed out that the Committee often does not approve the reinstatement of such a student. A reinstated student is not automatically readmitted to the College. The Committee may in fact recommend that the student not be readmitted to Christopher Newport College. But a reinstated student may seek admission to another college. In order to apply for reinstatement, the student should contact the Office of the Registrar for information. The deadlines for receipt of reinstatement requests are as follows:

For readmission to the summer session

May 1

For readmission to the fall semester

May 1 or August 1

For readmission to the spring semester
December 1

Appeals to the Committee on Academic Status

Any student has the right to appeal for reconsideration of a decision made by the Committee. Such an appeal should be made in writing and should indicate any circumstances which may affect the decision. Appeals may be addressed to the Secretary of the Committee on Academic Status.

Classification of Students

Students, both full-time and part-time, are classified as follows:

Freshman	from 1 to 23 credits
Sophomore	24 to 54 credits
Junior	54 to 85 credits
Senior	85 to 170 credits

Declaration of Major

A student should declare a major field not later than the end of the sophomore year or the completion of fifty-four credits. A declaration of major must be filed with the Registrar. Each department reserves the right to approve the student's application to major in the department. Changes in the choice of major may not be made after registration for the first semester of the senior year except with the approval of the Committee on Degrees and the acceptance by the new major department.

Double Major

With the approval of the department chairman concerned, a student may designate a second concurrent major concentration, provided that he or she meets all requirements of both departments, including distribution, supporting, and concentration courses. The appropriate request form should be filed with the Registrar.

Two baccalaureate degrees will not be awarded, but a notation recognizing the completion of the requirements for the second major will be posted on the student's transcript. In order to have this notation posted, the student must satisfy all requirements of both major programs.

Declaration of Minor

A student may declare a minor field no later than the first semester of the senior year unless approved by the Committee on Degrees. A declaration of minor must be

filed with the registrar along with a copy of the minor field program as approved by the student's major field adviser and the minor field department chairman.

The minor will include fifteen to twenty-one hours of course work above the 100 level as determined by the department of the minor field. With the approval of the major field adviser and the minor field department chairman, the student may count as many hours in the minor field as necessary to his or her overall program.

Second Baccalaureate Degree

Students who already have a bachelor's degree and wish to become candidates for a second undergraduate degree must earn a minimum of thirty additional semester hours credit in residence before a second degree may be granted. In addition, all distribution requirements and all requirements of the department concerned must be satisfied. Any transfer credit applicable toward the second degree will be determined by the Committee on Degrees.

Permission to become a candidate for the second baccalaureate degree will be granted by the Admissions Committee with concurrent approval of the Chairman of the department in which the student desires to pursue the second degree.

Courses Taken Elsewhere

The Associate Dean of Academic Affairs will evaluate the credits of a student who transfers to the College from another accredited institution and will issue to the student a written statement of transferable credits. Up to a maximum of ninety-two hours of transfer credit will be given for courses which carry a passing grade and are comparable to courses offered by the colleges similar in aims and purposes to Christopher Newport College. No more than sixty-six credits, however, may be in courses taken in a junior or public community college.

A student may transfer a maximum of twenty-one semester credits in courses representing the application of the arts and sciences, including the playing of an instrument, ceramics, arts and crafts, and the like. No more than sixty semester credits may be applied toward the degree for work completed in extension, special in-

stitute, or correspondence courses, or through the College Entrance Examination Board Advanced Placement Program, the College-Level Examination Program, Armed Services schools and experience, or departmental placement examinations. Students already at the College who want to take for credit courses offered by another institution must first receive written permission from the Associate Dean of Academic Affairs.

No more than thirty semester credits may be applied toward the Bachelor of Science in Governmental Administration degree for Law Enforcement, Administration of Justice, and Fire Science courses completed at two-year institutions. No more than sixteen semester credits in the above categories may be applied toward either the Bachelor of Arts or the Bachelor of Science degree.

Challenging a Course

Students who have become exceptionally knowledgeable through life experiences in the subject matter of certain courses offered at the College may challenge these courses. The student upon demonstrating proficiency through evaluation procedures established by the individual academic departments may earn credit for each such course. Only those courses which do not appear on his transcript from Christopher Newport College or any other college may be challenged. When a course is challenged successfully, a grade of P (Pass) and the appropriate hours of credit will be entered on the transcript. No entry will be made on the transcript if the challenge is unsuccessful. A student may challenge a particular course only once.

Students are directed to the brochure on *Procedures on Challenging Courses* available in the Office of the Registrar.

Course Offerings in the Evening

The flexibility described in the College's *Aims and Purposes* is realized in the evening curriculum, which opens the College's curriculum and degree programs (associate and baccalaureate) to those residents of the Lower Peninsula for whom the normal scheduling of classes would



make attendance difficult or impossible. The evening curriculum begins at 4:00 p.m. with the bulk of courses starting at 7:00 p.m. and operates Mondays through Thursdays.

Since a student may enroll in the evening curriculum as a classified or an unclassified student, he or she must first determine which classification is the more suitable to his or her aims and purposes.

Course Offerings in the Summer

The summer session, which extends the College's academic resources to students who reside on the Peninsula but attend or

plan to attend another college or university, is an integral part of the educational program of the College. The Summer Session consists of three terms of four and one-half weeks each and one term of nine weeks and offers courses in both day and evening. The Summer Session bulletin is published annually in March.

Requirements for Degrees

Christopher Newport College is authorized to confer six degrees: The Bachelor of Arts (B.A.) degree, the Bachelor of Science (B.S.) degree, the Bachelor of Science in Business Administration (B.S.B.A.) degree, the Bachelor of Science in Governmental Administration (B.S.G.A.) degree, the Bachelor of Science in Management Information Science (B.S.M.I.S.) degree, and the Associate in Arts (A.A.) degree.

The College offers the B.A. degree in elementary education, English, French, history, interdisciplinary studies, mathematics, philosophy, political science, psychology, sociology, Spanish, and theater arts. The B.S. degree is offered in biology, chemistry, interdisciplinary studies, and psychology. The College offers the professional B.S. degree in Business Administration (with concentrations in accounting, economics, finance, management, marketing, real estate, and retailing) and in Governmental Administration (with concentrations in Public Management, Community Planning, Law Enforcement, and Corrections) as well as the interdisciplinary B.S. degree in Management Information Science. The Associate in Arts degree is offered in Liberal Arts.

When a department offers more than one degree, the student is referred to the specific statement of requirements just before the course listings for that department.

The student may choose to fulfill either the general requirements for graduation set forth in the catalog when he or she becomes a classified student in the College or the general requirements in the catalog in effect when he or she graduates. The student must fulfill, however, the concentration requirements in effect when the choice of concentration is declared. A student who leaves the College for a period of one full academic year or more after declaring a major can be required to meet the concentration requirements in effect at the time he or she reenters.

General Requirements for Graduation

One hundred and twenty-two credits are required for graduation for students who enrolled as classified students in the College prior to the Fall Semester, 1978. In the case of those students who enroll in the College after the Spring Semester, 1976, one hundred and twenty-four semester credits are needed for graduation. An overall 2.0 grade point average is required.

Each student is expected to plan a curriculum, including distribution, concentration, and elective offerings. Although the College offers every assistance to the student in planning his or her program it is ultimately the responsibility of the student to ensure that his or her program properly fulfills the requirements for the degree sought as set forth in the catalog.

Certain other general requirements must also be fulfilled for graduation:

1. Students must become Classified (candidates for a degree) prior to beginning the last thirty semester credits in his or her academic program.
2. The student must achieve a minimum overall grade point average of 2.0 as well as a 2.0 in his or her major field of concentration with no more than two grades of D in the major. (Effective June, 1969, the College adopted a four-point grading scale; consult the System of Grading for the exact scale).
3. At least thirty of the last thirty-six hours, including at least the last twelve hours of the major field, must be taken in residence. A student enrolled in the Serviceperson's Opportunity College may fulfill the thirty hours of residency at any time in the course of satisfying his or her degree requirements.
4. At or before the end of the sophomore year (or fourth semester), the student should choose a major field in consultation with an adviser from the field in which the student is interested. A declaration of major must be filed with

the Registrar. In accord with the requirements of that major and the student's interests and career objectives, the student and adviser will establish a well-balanced course of study. The student should refer to the appropriate departmental listing under Courses of Instruction for specific concentration requirements.

5. Of the total number of credits required for graduation:
 - a. The student may present only forty-two total hours in his or her major field but may elect not to include among these hours introductory courses in the major (refer to individual departmental listings for further information). In order to exclude the introductory course, the student must declare to the Registrar an intention to do so before completing ninety-two semester credits.
 - b. The student may present a maximum of six credits in physical education activities courses toward the degree.
 - c. The student may present a maximum of twelve credits in any combination of elementary topics (courses numbered 295), intermediate topics (courses numbered 395) and advanced topics (courses numbered 495) in any given field.
 - d. The student may select as electives any academic courses allied to his or her major or of particular interest to the student, provided that all necessary prerequisites have been met.
6. Students must file the "Intent to graduate" form and any request for waiver or substitution of any requirement for graduation with the Registrar according to the following schedule:
 - a. For Spring graduation, no later than the last day of Fall semester
 - b. For Winter graduation, no later than the last day of Summer Session classes.



Bachelor of Arts and Bachelor of Science Degrees

Distribution requirements should ordinarily be completed within the first two years or the first sixty hours of work. The range of courses which a student may take to satisfy the distribution requirements is listed below:

English *six credits*
English 101-102 or English 103-104, or (if approved by the English Department) 101-104 or 103-102 is required of all students unless exempted by the English Department. Recommended placement of each student in 101 or 103 is done on the basis of pre-college verbal scores and education background as well as career interests and potential major.

Foreign Language *six to fourteen credits*
The student should achieve competence in a foreign language as indicated by satisfactory completion of the 202 course of French, German, Latin or Spanish. Students who want to take a modern language to fulfill this requirement should refer to the Modern Languages and Literatures section for information on placement; students who want to take Latin to fulfill this requirement should refer to the Classical Studies section for similar information.

Humanities *six credits*

The student may choose any one of the following sequences:

- English 201, 202
- English 205, 206
- English 207, 208
- Fine Arts 201, 202
- Music 201-202
- Philosophy 201, 202
- Theatre 210, 211

or any six hour combination of:

- Classical Civilization 200
- French 251, 252
- German 251, 252
- Modern Languages 205, 206
- Spanish 251, 252

Mathematics or Philosophy

four to six credits

The student may choose Philosophy 101-102 or any two of these four courses in mathematics:

- Mathematics 110, 120, 125, 130

If qualified, the student may choose Mathematics 140 alone. At the discretion of the Mathematics Department, the requirement may be satisfied if a student places beyond Mathematics 140 on the placement examination. (Any student who began the Philosophy 201-202 sequence before June, 1969, may count these courses as fulfillment of the Mathematics/Philosophy requirement instead of the Humanities requirement.)

Natural Science *eight to ten credits*

The student may choose one of the following sequences:

- Biology 101-102 (a student who earns an A or B in Biology 101 may be given permission by the department to substitute an upper level laboratory course for Biology 102)
- Chemistry 103-104 and 105-106
- Chemistry 121-122 and 125-126
- Physics 103-104
- Physics 201-202

or any two semester natural science course for non-science majors. A transfer student may satisfy this requirement with eight or ten hours of freshman geology, astronomy, or other laboratory science course that considers one area of science through the full academic year. A two-semester course in a second field will be required for a B.S.

degree (see the specific requirements for the appropriate department).

Social Sciences *twelve credits*

The student may choose any two of the following sequences:

- Economics 201-202
- History 101, 102 or History 201, 202
- Political Science 101, 102
- Psychology 201, 202
- Sociology 200 and any other 200-level sociology course

Physical Education *two to four credits*

Two semester courses of physical activities are required. A maximum of two additional semester credits may be applied toward a degree.

Waiver of Distribution Requirement

A student may waive one of the basic distribution requirements except English 101-102/103-104. This exemption neither affects prerequisites for courses nor alters departmental requirements. The waiver does not change the total number of credits required for the degree.

Any student exempted for a distribution requirement by the Degrees Committee forfeits the above option. Special exceptions other than the waiver from the basic distribution requirements outlined above may be requested by writing to the Committee on Degrees.

Bachelor of Science Degree in Management Information Science

Management Information Science is an undergraduate professional program leading to an interdisciplinary bachelor of science degree. The curriculum consists of courses chosen from the fields of business, computer science, economics, mathematics, and psychology, with primary emphasis in the field of computer science. The program is designed to provide the student with a broad background appropriate for a computer-oriented career, such as business or scientific programming, system programming, or systems analysis. With careful selection of electives, this program can prepare a student for graduate work in computer science or related disciplines.

Distribution Requirements

Distribution requirements should be completed within the first two years or first sixty hours of work. The range of courses which satisfy the distribution requirements is listed below:

Humanities *twelve credits*

The student must complete English 101-102 or 103-104. For the remaining requirement, the student may select any six or eight credit humanities sequence or a combination of one 200-level English or other humanities courses and Speech 201.

Mathematics *three credits*

The student must take mathematics 130. Through advanced placement, the student may offer Mathematics 140 to satisfy this requirement.

Natural Science *eight to ten credits*

The student may choose one of the following sequences:

- Biology 101-102 (a student who earns an A or B in Biology 101 may be given permission by the department to substitute an upper-level laboratory course for Biology 102)
- Chemistry 103-104 and 105-106
- Chemistry 121-122 and 125-126
- Physics 103-104
- Physics 201-202

or any two semester natural science course for non-science majors. A transfer student may satisfy this requirement with eight or ten hours of freshman geology, astronomy, or other laboratory science course that considers one area of science through the full academic year.

Social Sciences *twelve credits*

The student may choose one of these six-credit sequences:

- Economics 201-202
- History 101, 102
- History 201, 202
- Political Science 101, 102
- Psychology 201, 202
- Sociology 200 and any other 200-level sociology course

In addition, the student must then select six more credits in the social sciences in accord with his or her interests and career objectives.

Physical Education *two to four credits*

Two semester courses of physical activi-

ties are required. A maximum of two additional semester credits may be applied toward a degree.

Core Curriculum Requirements

The core requirements consist of fifty-eight hours in the fields of business, computer science, economics, mathematics, and psychology. These requirements include: Business 201-202, 324, and two of the following: 323, 410, 418 or Economics 490; Computer Science 220, 240, 430, 440 and two of the following: 310, 330, 340, and 360; Economics 201, 202; Mathematics 125, 140, 260; and Psychology 201, 303, 313. Recommended electives for the remainder of the 122 credit hours include: Business 303-304, 311; Computer Science 250, 431; Mathematics 240, 320, 395 (Numerical Analysis); and Sociology 432.

A maximum of three grades of D are allowed in core courses, not to exceed two grades of D in a single discipline.

Sample Program for Management Information Science Majors

Course	Hours
Freshman Year	
English 101-102	6
Math 130, 140	7
Laboratory Sciences	8-10
Social Science	3
Computer Science 220, 240	6
Physical Education	4
34-36	
Sophomore Year	
Speech 201	3
Humanities	3
Economics 201-202	6
Math 125	3
Business 201-202	6
Computer Science 330, 340	6
Psychology 201	3
30	
Junior Year	
Business 324, 410	6
Computer Science 310, 360	6
Psychology 303, 313	6
Math 260	3
Electives	9
30	
Senior Year	
Business 418	3

Computer Science 430, 440	6
Economics 490	3
Electives	18
	30



Bachelor of Science Degree in Governmental Administration

All students seeking the Bachelor of Science in Governmental Administration degree must complete both distribution and core requirements. Distribution requirements should be completed within the first two years or first sixty hours. All Governmental Administration and Political Science majors must complete Political Science 101 and 102. The range of courses which a student may take to satisfy the distribution requirements is listed below:

English *six credits*

English 101-102 or English 103-104, or (if approved by the English Department) 101-104 or 103-102 is required of all students unless exempted by the English Department. Recommended placement of each student in 101 or 103 is done on the basis of pre-college verbal scores and education background as well as career interests and potential major.

Humanities *six credits*

The student may choose any one of the following sequences:

- English 201, 202
- English 205, 206
- English 207, 208
- Fine Arts 201, 202
- Music 201-202
- Philosophy 201, 202
- Theatre 210, 211

or any six hour combination of:

- Classical Civilization 200
- French 251, 252
- German 251, 252
- Modern Languages 205, 206
- Spanish 251, 252

Mathematics or Philosophy

four to six credits

The student may choose Philosophy 101-102 or any two of these four courses in mathematics:

Mathematics 110, 120, 125, 130

If qualified, the student may choose Mathematics 140 alone. At the discretion of the Mathematics Department, the requirement may be satisfied if a student places beyond Mathematics 140 on the placement examination. (Any student who began the Philosophy 201-202 sequence before June, 1969, may count these courses as fulfillment of the Mathematics/Philosophy requirement instead of the Humanities requirement.)

Computer Science 200 or 220 *three credits* or Accounting 201

Natural Science *eight to ten credits*

The student may choose one of the following sequences:

- Biology 101-102 (a student who earns an A or B in Biology 101 may be given permission by the department to substitute an upper-level laboratory course for Biology 102)
- Chemistry 103-104 and 105-106
- Chemistry 121-122 and 125-126

Physics 103-104

Physics 201-202

or any two semester natural science course for non-science majors. A transfer student may satisfy this requirement with eight or ten hours of freshman geology, astronomy, or other laboratory science course that considers one area of science through the full academic year.

Social Sciences *twelve credits*

The student must choose any twelve hours of social science in consultation with his or her adviser.

Physical Education *two to four credits*

Two semester courses of physical activities are required. A maximum of two additional semester credits may be applied toward a degree.

Governmental Administration majors may not waive any distribution requirement. Special exceptions from any of the basic distribution requirements outlined above may be requested by writing to the Committee on Degrees.

Core Curriculum Requirements

Courses in the core requirements provide students with the skills needed within each specialty and should be selected in accordance with career interests. Courses selected for core curriculum requirements may not be applied toward the requirements for a specialty. A minimum of nine courses are required. Care should be exercised to ensure that prerequisite courses have been completed.

Administration: Political Science 371

Urban Analysis (select a minimum of 3 courses): Political Science 221, 331, 451, 461; Economics 351; Biology 306.

Normative Analysis (select a minimum of 3 courses): Political Science 357, 358, 359; Philosophy 304, 440.

Quantitative and Research Analysis (select a minimum of two courses, at least one in statistics): Political Science 361, 352; Sociology 391; Math 125; Computer 350; Accounting 202.

Professional Specialties Requirements

The student must select one of the following specialties: Public Management, Community Planning, Criminal Justice Administration, or Corrections. All Governmental Administration majors must complete

either Political Science 491 or 499; Political Science 491 is recommended for pre-service students; Political Science 499 is recommended for in-service students.

For the *Public Management Specialty*, students must complete a minimum of five of the following specialty courses, including those with an asterisk: Political Science 381*, 391*, 401*, 361, 363, 440, and either 491 or 499; Business 351; Economics 302. For the *Community Planning Specialty*, students must complete eight of the following courses, including those with an asterisk: Political Science 331*, 334*, 335*, 336*, 337*, 440*, 361, 391, 461, and either 491 or 499.

For the *Criminal Justice Administration Specialty*, the student who has completed an associate degree in law enforcement or its equivalent may satisfy 16 of the 28 required credits of this specialty by having completed eight law enforcement courses at a Virginia community college, or may substitute them for criminal justice-related courses taken at a four-year institution, with the approval of the student's adviser. (Students already enrolled in the College who wish to take community college law enforcement courses should follow the procedures for taking courses elsewhere). In addition to these requirements totaling 16 semester credits, the student specializing in criminal justice administration must take Political Science 346 and 466, and either 491 or 499, and must select one of the following courses with approval of adviser: Political Science 342, 363, 365, 395, 490, 495; Psychology 313.

For the *Corrections Specialty*, students must complete three of the following courses in Political Science, including those with an asterisk: Political Science 363*, 491, or 499*, 346, 381, 395, 401. In addition, students must complete four of the following Sociology courses: Sociology 220, 225, 319, 321, 324, 326, 367, 395, 399, 410, 411, 422, 495. Students must also complete two of the following Psychology courses: Psychology 304, 305, 307, 308, 309, 313, 403, 405.

Certificate Programs in Community Planning

The Department of Political Science and Governmental Administration offers basic and advanced certificates in community planning. Interested students should contact the Director of Planning Programs in that department.

Sample Programs Public Management Specialty

Course	Hours
Freshman Year	
English Composition	6
Mathematics	6
Political Science	6
Physical Education	4
Economics	6
Electives	6
	34
Sophomore Year	
Natural Science	8
Humanities	6
Accounting or Computer	3
BSGA Core Requirements	12
Electives	3
	32
Junior Year	
BSGA Core Requirements	15
BSGA Specialty Courses	15
Electives	3
	33
Senior Year	
BSGA Specialty Requirements	12
Electives	13
	25
Community Planning Specialty	
Freshman Year	
English Composition	6
Mathematics	6
Political Science	6
Economics	6
Physical Education	4
Elective	3
	31
Sophomore Year	
Biology 101-102	8
Humanities	6
Introduction to Community Planning	3
Statistics	3
Introduction to Sociology	3
Social Problems	3
Urban Economics	3

Elective	3
	32
Junior Year	
Site Planning and Design I, II	6
Techniques of Community Planning	3
Computer Planning	3
Public Administration	3
Governmental Budgeting	3
Environmental Conservation	3
Urban Government and Politics	3
Community Organization	3
Elective	3
	31
Senior Year	
Planning Law and Administration	3
Theory of Planning	3
Public Policy Analysis	3
Politics of Urban Planning	3
Political Thought and Criticism	3
Recent Political Ideas and Values	3
Practicum	3
Electives	10-12
	30-32
Criminal Justice Administration	
Course Hours	
Freshman Year	
English Composition	6
Mathematics	6
Political Science	6
Physical Education	4
Psychology	3
Natural Science	8
	33
Sophomore Year	
Humanities	6
BSGA Core Requirements	15
Sociology	6
Computer or Accounting	3
Elective	3
	33
Junior Year	
BSGA Core Requirements	12
BSGA Specialty Requirements	15
Electives	6
	33
Senior Year	
BSGA Specialty Requirements	18
Psychology	3
Electives	6
	27

Corrections Specialty

Course	Hours
Freshman Year	
English Composition	6
Mathematics	6
Political Science	6
Physical Education	4
Sociology	6
Psychology	3
	31
Sophomore Year	
Natural Science	8
Humanities	6
Computer or Accounting	3
BSGA Core Requirements	15
	32
Junior Year	
BSGA Core Requirements	15
Sociology	6
Psychology	6
Electives	6
	33
Senior Year	
BSGA Specialty Requirements	15
Economics Electives	6
Electives	7
	28



Bachelor of Science Degree in Business Administration

All students seeking the Bachelor of Science in Business Administration degree must complete both distribution and basic

core requirements which are the same for all concentrations offered under this degree: accounting, economics, finance, management, marketing, and real estate. The distribution requirements should be completed within the first two years or sixty hours of work. For the core curriculum of each concentration, the student is referred to the appropriate section in the listings of the Department of Accounting and Finance, the Department of Economics, and the Department of Management and Marketing. The Division of Business and Economics is a member of the American Assembly of Collegiate Schools of Business. The courses which satisfy the distribution requirements are:

English six credits

English 101-102 or English 103-104, or (if approved by the English Department) 101-104 or 103-102 is required of all students unless exempted by the English Department. Recommended placement of each student in 101 or 103 is done on the basis of pre-college verbal scores and education background as well as career interests and potential major.

Humanities six credits

The student may select a six-hour sequence from the following courses:

- Classical Studies 200
- English 201, 202
- English 205, 206
- English 207, 208
- Fine Arts 201, 202
- French 251, 252
- German 251, 252
- Modern Languages 205, 206
- Music 201-202
- Philosophy 201, 202
- Theatre 210, 211

or the student may take Speech 201 and any one of the courses listed above.

Mathematics six credits

Mathematics 125 is required. Mathematics 110 is recommended. The student who has a strong algebra background should consult his adviser about substituting a higher level course for Math 110.

Natural Science *eight to ten credits*

The student may choose one of the following sequences:

Biology 101-102 (a student who earns an A or B in Biology 101 may be given permission by the department to substitute an upper-level laboratory course for Biology 102)
Chemistry 103-104 and 105-106
Chemistry 121-122 and 125-126
Physics 103-104
Physics 201-202

or any two semester natural science course for non-science majors. A transfer student may satisfy this requirement with eight or ten hours of freshman geology, astronomy, or other laboratory science course that considers one area of science through the full academic year.

Computer Science 220 *three credits*

Business 108 *three credits*

Social Sciences *twelve credits*

The student may choose one of these six hour sequences:

History 101, 102
History 201, 202
Political Science 101, 102
Psychology 201, 202
Sociology 200 and any other 200-level sociology course

In addition, the student must select six more hours in the social sciences in accord with his or her interests and career objectives. These last six hours do not have to be sequential.

Physical Education *two to four credits*

Two semester courses of physical activities are required. A maximum of two additional semester credits may be applied toward a degree.

Special exceptions from any of the basic distribution requirements as outlined above may be requested by writing to the Committee on Degrees.

Core Curriculum Requirements

The following core curriculum requirements for the BSBA degree must be completed by all students in the B.S.B.A. program, regardless of their concentration. These 33 hours of course work are considered to be a common body of knowledge for

all students majoring in Business Administration fields, or Economics.

Core Courses	Hours
Acct. 201-202 Acct. Prin. I & II	6
Math 125 Statistics	3
Fin. 323 Financial Management	3
CS 220 Computer Programming I	3
Busn. Law 361 Legal Env. of Bus.*	3
Mgmt. 324 Admin. Theory and Practice	3
Mgmt. 408 Quantitative Analysis	3
Mgmt. 418 Business Policy	3
Mkt. 311 Principles of Marketing	3
Econ 301 Money and Banking	3
TOTAL	**33
	(6 hours in other departments)

*Students concentrating in Accounting should substitute 6 hours of Business Law for the course, Legal Environment of Business.

**In addition, 6 hours of Principles of Economics is required as part of the Social Sciences, General Education requirement.

Concentration Requirements

In addition, to satisfy the B.S.B.A. degree requirements, the student must complete a concentration in one of the six areas listed below. The specific course requirements for each of these concentrations are listed by departments in subsequent sections of the Catalog.

Areas of Concentration

- | | |
|----------------|-----------------|
| (1) Accounting | (4) Management |
| (2) Economics | (5) Marketing |
| (3) Finance | (6) Real Estate |

Students electing the accounting concentration must declare their intention before beginning the last four semesters of college work. Students electing any of the other concentrations offered under the B.S.B.A. degree program must declare this intention before beginning the last two semesters of work at the College.

Sample Program for the Freshman and Sophomore Years in Business Administration

Course	Hours
Freshman Year	
English 101-102	6
Math 125	3
Social Science	6
Laboratory Science	8
Physical Education	4
Business 108	3
	30
Sophomore Year	
Humanities 200 level and Speech 201; or a 200-level Humanities sequence	6
Accounting 201-202	6
Economics 201-202	6
Business 324	3
Social Science	6
Computer Science 220	3
	30

Bachelors Degree in Interdisciplinary Studies

The Interdisciplinary Major is a degree program at Christopher Newport College which permits a student, under the guidance of a faculty committee, to design and carry out an individual plan of study involving two or more academic disciplines. The student may earn either the Bachelor of Arts or the Bachelor of Science degree.

An important objective of the Interdisciplinary Major is to involve the student in formulating a rationale for and the design of a coherent individual program of study. This is a difficult task and requires a certain amount of knowledge and direction. The student will have to give considerable thought to his or her long-range learning

objectives, and how those objectives are best met. For this reason, it is advisable for the student to first complete thirty or more semester hours of study. In order to complete predetermined learning objectives, a student must complete at least seventy-five hours of course work after being admitted to the program. Before applying to the program, the student must make certain that his educational goals cannot be achieved by a regular departmental major supported by a minor and/or careful selection of electives. The student's plan of study must meet college distribution requirements, must give evidence of the student's ability in the methods of disciplined academic inquiry, and must include a minimum of thirty credits in 300- and 400-level courses in the traditional academic disciplines.

To enter the program the student must first complete an application form which calls for a brief description of his or her proposed plan of study, a rationale for the plan, and an identification of those disciplines that will be involved in the student's plan of study. Application forms are available in the office of the Dean of Academic Affairs. Applications must be submitted to the Dean by November 1 during the Fall semester or March 15 during the Spring semester. It is advisable for a student to discuss his or her plan of study with the Dean before submitting an application.

The Dean or his designate reviews the student's application and if he judges the student's proposal to be viable, he appoints a faculty committee which represents the primary disciplines involved in the student's plan of study. The Dean also identifies one of the members of this committee as the student's major adviser. If the Dean is unable to approve the student's proposed plan of study, he does not appoint a faculty committee and notifies the student of the reason for his decision.

The appointed faculty committee initially meets with the student to discuss the proposed plan of study and continues to assist the student in the implementation of the details. This includes specifying the individual courses that the student must take to meet all requirements for the Bachelor of Arts or Bachelor of Science

Degree. All members of the committee must approve the student's program or any subsequent changes in an already approved program. Members of the committee as individuals advise the student throughout his or her program of study with regard to those academic disciplines in which the committee member has expertise. The student's major adviser oversees the total work of the student and confirms, prior to graduation, that he or she has completed all necessary requirements.

CNC/ODU Affiliated Baccalaureate Program for Registered Nurses

Through a cooperative arrangement, registered nurses may earn the Old Dominion University Bachelor of Science degree in Nursing through an affiliated program with Christopher Newport College. The ODU degree is fully accredited by the National League for Nursing.

The Christopher Newport College/Old Dominion University affiliated program is designed to meet the needs of the registered nurse whose job and/or other responsibilities preclude full-time study. Students who are not registered nurses are not eligible to participate.

Students interested in the program will initially apply for Classified Status at Christopher Newport College and, if admitted, will retain their CNC Classified Status throughout the first 72 hours of the program. Students will be assigned to an adviser from the ODU School of Nursing throughout their studies.

The admission and degree requirements of Old Dominion must be met by students in order to earn the B.S.N. degree through the affiliated program. Twenty-four semester hours of prerequisite courses taken at Christopher Newport College may be counted toward the Old Dominion University residence requirement of thirty semester hours.

Additional information about this cooperative program can be obtained from the Admissions Office.

Associate in Arts Degrees

Christopher Newport College is authorized to confer the Associate in Arts degree in Liberal Arts and in Retailing. Full information on the Retailing program may be found in the Retailing portion of the catalog (see *Courses of Instruction*). The following information pertains to the Associate in Arts degree requirements in Liberal Arts.

A student in this program may choose to fulfill the general degree requirements set forth in the catalog in effect when he or she becomes a classified student in the College or in the catalog in effect at the time he or she graduates. Each student is expected to plan a curriculum, including distribution requirements and elective offerings, in consultation with his or her adviser. Although the College offers every assistance to the student in planning a program, it is ultimately the student's responsibility to ensure that his or her program of studies properly reflects the requirements for the degree as set forth in the catalog.

General Requirements for Graduation

A minimum of sixty-four semester credits is required for the degree. Of these sixty-four semester credits, sixty must be in academic subjects and four in required physical education activities courses. A minimum of one hundred and twenty-eight grade points (a 2.0 average) is required. The Associate in Arts degree will not be granted until the student has been in residence at least one college year and has earned a minimum of fifteen semester credits at the College. This period must include the last year of the work required for the degree.

Courses Taken Elsewhere

The Associate Dean of Academic Affairs will evaluate the credits of a student who transfers from another accredited institution and will identify in a written statement to the student the credits acceptable as transfer credit. Transfer credits, up to a maximum of thirty-four hours, will be given for courses which carry a passing grade and are comparable to courses offered by the colleges similar in aims and purposes to Christopher Newport College.

A student may transfer a maximum of twenty-one semester credits in courses representing the application of the arts and sciences, including the playing of an instrument, ceramics, arts and crafts, and so on. No more than thirty semester credits may be applied toward the degree for work completed in extension, special institute or correspondence courses, service schools and courses, or through the College Entrance Examination Board Advanced Placement Program and College-Level Examination Program. Students already enrolled at the College who want to take such work or summer school work elsewhere for credit must first receive written permission from the Associate Dean of Academic Affairs.

Distribution Requirements

To qualify for this degree, a student must complete a minimum of thirty-six semester credits according to this plan:

English six credits

English 101-102 or English 103-104, or (if approved by the English Department) 101-104 or 103-102 is required of all students unless exempted by the English Department. Recommended placement of each student in 101 or 103 is done on the basis of the pre-college verbal scores and education background as well as career interests and potential major.

Foreign Language six to fourteen credits

The student should achieve competence in a foreign language as indicated by satisfactory completion of the 202 course of French, German, Latin or Spanish. Students who want to take a modern language to fulfill this requirement should refer to the Modern Languages and Literatures section for information on placement; students who want to take Latin to fulfill this requirement should refer to the Classical Studies section for similar information.

Humanities six credits

The student may choose any one of the following sequences:

English 201, 202
English 205, 206
English 207, 208
Fine Arts 201, 202
Music 201-202

Philosophy 201, 202
Theatre 210, 211
or any six hour combination of:
Classical Civilization 200
French 251, 252
German 251, 252
Modern Languages 205, 206
Spanish 251, 252

Mathematics four to six credits
or Philosophy

The student may choose Philosophy 101-102 or any two of these four courses in mathematics:

Mathematics 110, 120, 125, 130

If qualified, the student may choose Mathematics 140 alone. At the discretion of the Mathematics Department, the requirement may be satisfied if a student places beyond Mathematics 140 on the placement examination. (Any student who began the Philosophy 201-202 sequence before June, 1969, may count these courses as fulfillment of the Mathematics/Philosophy requirement instead of the Humanities requirement.)

Natural Science eight to ten credits

The student may choose one of the following sequences:

Biology 101-102 (a student who earns an A or B in Biology 101 may be given permission by the department to substitute an upper-level laboratory course for Biology 102)
Chemistry 103-104 and 105-106
Chemistry 121-122 and 125-126
Physics 103-104
Physics 201-202

or any two semester natural science course for non-science majors. A transfer student may satisfy this requirement with eight or ten hours of freshman geology, astronomy, or other laboratory science course that considers one area of science through the full academic year.

Social Sciences six credits

The student may choose any two of the following sequences:

Economics 201-202
History 101, 102
History 201, 202
Political Science 101, 102
Psychology 201, 202
Sociology 200 and any other 200-level sociology course

Physical Education two to four credits

Two semester courses of physical activities are required. A maximum of two additional semester credits may be applied toward a degree.

Special exceptions from the basic distribution requirements outlined above may be requested by writing to the Committee on Degrees.

Electives

For the remainder of the sixty-two required hours, the student may select any academic courses of special interest to him or her, provided that the necessary prerequisites have been completed.



Special Fields of Concentration

The following is a list of concentrations, tracks, and specializations offered by departments within their degree programs. Detailed information is contained in appropriate departmental "Courses of Instruction" sections.

Accounting and Finance:

Accounting
Finance

Biology:

Environmental Science
Ornamental Horticulture
Parks, Open Space, Recreation, Natural Resources Management
Pre-medical/Pre-dental

Fine and Performing Arts:

Theatre Arts (major offered)
Fine Arts (minor offered)
Music (minor offered)

Management, Marketing, and Retailing:

Management
Marketing
Real Estate
Retailing

Physics:

Pre-engineering Program

Political Science:

Public Management
Community Planning
Law Enforcement
Corrections

Sociology:

Social Work
Research and Program Evaluation
Criminology

Courses of Instruction

In the following descriptions of courses offered by the College, courses numbered 100 are primarily for freshmen, 200 for sophomores, 300 for juniors, and 400 for seniors.

A continuous course, indicated by a hyphen between the course numbers, covers a field of closely related materials, and the first semester must ordinarily precede the second unless special permission is given by the chairman of the department concerned. If a course is made up of two closely related semesters, but the second may be taken first, the course numbers are separated by a comma. The numbers in parentheses following the title of the course should be read in this way: the first digit refers to the number of credit

Accounting and Finance

Associate Professor: Riley (Chairman)
Assistant Professors: Herren, Kowarsky, and Mehta
Instructor: Schell

The Department is a member of the American Assembly of Collegiate Schools of Business and offers the Bachelor of Science in Business Administration degree with two concentrations, accounting and finance. The concentration in accounting prepares the student to pursue professional objectives leading to careers in private, governmental, or public accounting. The course work prescribed in the accounting concentration meets the requirements of the Virginia State Board of Accountancy for eligibility to take the Uniform Certified Public Accountant Examination.

The finance concentration prepares the students for careers in financial institutions and private corporations. This concentration involves knowledge of financial instruments, money markets, government regulations, and stock and bond exchanges.

For general distribution and basic core requirements, refer to the catalog section on Requirements for Degrees (B.S.B.A.).

A student majoring outside the B.S.B.A.

hours awarded for completion of the course; the second digit refers to the number of lecture hours for the course; and the third digit refers to the number of laboratory, practicum, or studio hours for the course. A course which is designated as (4-3-2), for example, refers to a four-credit course which has three lecture hours and two laboratory hours each week.

A schedule of when these courses will be offered is published each semester well before registration. While the College will attempt to offer the courses in the semester and year indicated in this catalog, the College reserves the right to change the schedule in response to the availability of the professional staff and the demand of students. For information about the scheduling of courses, the student should see the chairman of the department in which the course will be offered.

program may minor in accounting. The courses required for the minor are: Accounting 201-202, 301-302, and 303, 304.

Accounting

(Twenty-seven credits required)

The following courses are required: Accounting 301-302, *Intermediate Accounting*; Accounting 303-304, *Cost Accounting*; Accounting 405, *Auditing*; Business 341-342, *Business Law*; Accounting 400, *Advanced Accounting*. One of the following courses is also required: Accounting 351, *Governmental and Institutional Taxations*; Accounting 401, *Taxation*; Accounting 402, *Advanced Taxation*; Accounting 403, *Accounting Theory*; Accounting 495, *Topics*. For a minor in accounting, the student must take Accounting 201-202, 301-302, and 303, 304.

Suggested Course Outline for Accounting Concentration

Course	Hours
Junior Year	
Accounting 301-302; 303-304	12
Economics 301	3
Business 311, 323, 341-342	12
Math 125	5
Non-Business Electives	3
	33

Senior Year	
Accounting 400, 405	6
Accounting (351, 401, 402, 403)	3
Electives	19*
Business 408	3
	31

* Of these electives, six hours may be in business if the student declares eighteen hours of basic courses as general electives.

Finance

(Fifteen credits required)

The following courses are required: Accounting 410, *Managerial Accounting*; Business 418, *Business Policy and Management*; Business 421, *Investments*. Six credits are required from the following courses: Accounting 401, *Taxation*; Accounting 402, *Advanced Taxation*; Business 461, *Public Policy Toward Business*; Business 473, *Real Estate Finance*; Business 495, *Advanced Topics*; Economics 302, *Public Finance*; Economics 420, *Business Conditions and Forecasting*; Economics 470, *International Trade and Finance*.

Suggested Course Outline for Finance Concentration

Course	Hours
Junior Year	
Business 311, 323	6
Economics 301	3
Math 125	3
Finance Concentration	6
Non-Business electives	15
	33

Senior Year	
Business 408	3
Non-Business electives	19*
Finance concentration	9
	31

* Upon waiver by the registrar, the student may take up to an additional eighteen hours in business by declaring introductory courses in business as general electives.

Accounting 201-202. Principles of Accounting [3-3-0]

Taught both semesters.

A study of the elementary principles and procedures of individual proprietorship, partnership, and corporation accounting.

Accounting 301-302. Intermediate Accounting [3-3-0] [3-3-0]

Prerequisite: Accounting 201-202. Taught both semesters.

An analysis of the statement of financial position, the income statement, and the statement of changes in financial position, together with the theory of valuation underlying the various accounts used in these statements.

Accounting 303-304. Cost Accounting [3-3-0] [3-3-0]

Prerequisite: Accounting 201-202. Taught both semesters.

The fundamentals of job order, process, and standard cost accounting and cost and profit analysis for decision-making purposes.

Accounting 351. Governmental and Institutional Accounting [3-3-0]

Prerequisite: Accounting 201-202. Taught on demand.

Budgetary accounting and finance control and their application to various governmental units, more particularly to cities, counties, and other political subdivisions and public institutions.

Accounting 400. Advanced Accounting [3-3-0]

Prerequisite: Accounting 301-302. Taught spring semester.

A study of accounting for partnerships, consolidated statements, and fiduciaries.

Accounting 401. Taxation [3-3-0]

Prerequisite: Accounting 201-202. Taught fall semester.

A review of federal income tax laws as applied to individuals.

Accounting 402. Advanced Taxation [3-3-0]

Prerequisite: Accounting 201-202. Taught spring semester.

A review of federal tax laws as applied to partnerships and corporations.

Accounting 403. Accounting Theory [3-3-0]

Prerequisite: Accounting 301-302. Taught either semester as required.

A review of current topics in accounting; a detailed study of articles in accounting

journals and related publications.

Accounting 405. Auditing [3-3-0]

Prerequisite: Accounting 301-302, and Math 125. Taught fall semester.

Conceptual approach to auditing principles and procedures in the preparation of auditing reports. Professional standards and ethics are emphasized.

Accounting 410. Managerial Accounting [3-3-0]

Prerequisite: Accounting 201-202. Taught either semester. For non-accounting majors only.

The study of the use of accounting data by management in planning, budgeting, and forecasting business and economic variables.

Accounting 495. Accounting Topics

Prerequisite: Permission of department chairman.

Topical seminars in accounting. The number of credits may vary.

Business 323. Corporate Finance [3-3-0]

Prerequisite: Accounting 201-202. Taught both semesters. Topics covered include a brief history of corporate development, types of securities issued, promotion, capitalization, ownership, and management; sales and regulation of securities; income, working capital requirements, corporate expansion, failure and reorganizations. Attention given to the importance of taxation to corporate financing and to corporate responsibilities affecting the public interest.

Business 341-342. Business Law [3-3-0] [3-3-0]

Taught both semesters.

A study of the primary legal principles and their applicability to ordinary commercial transactions, with emphasis on contracts, legal forms of business enterprises, agencies, negotiable instruments, and labor and antitrust legislation.

Business 421. Investments [3-3-0]

Prerequisite: Business 323. Taught both semesters.

An analysis of investment risks, portfolio management, and the securities markets. Analysis and solution of financial problems related to investment.

Business 495. Finance Topics

Prerequisite: Permission of the department chairman.

Topical seminars in finance. The number of credits may vary.

An analysis of investment risks, portfolio management, and the securities markets. Analysis and solution of financial problems related to investment.

Business 495. Finance Topics

Prerequisite: Permission of the department chairman.

Topical seminars in finance. The number of credits may vary.

Anthropology

203. Introduction to Anthropology [3-3-0]

Taught fall semester.

An introduction to the field of anthropology. Particular attention will be given to the problems of human origins and development, both physical and cultural.

204. Cultural Anthropology [3-3-0]

Taught spring semester.

The application of the concept of culture to the study of contemporary societies, both pre-industrial and modern, including such institutional areas as magic and ritual, crime, custom and law, and economy, courtship, marriage, and childrearing. These will be analyzed cross-culturally.

Basic Studies

Assistant Professors: Harwood (Chairman), Kostaki, and Randall

The Basic Studies Department offers instruction and guided practice in mathematics, reading, and writing to students who need additional competence in those areas in order to benefit fully from the intellectual life of the College.

Basic Studies courses provide group and individual instruction in a systematic progression. The Department also offers laboratory or tutorial programs outside the course schedule for any student of the College.

While the Department emphasizes academic preparation, the faculty believes that self-confidence and motivation invariably

accompany academic achievement. Thus, the courses include individual conferences, tutorial sessions, and referral to the Counseling Center as needed.

Students may initiate their contact with the Department or may be referred by the Dean of Admissions, the Counseling Center, or any member of the faculty. While some students acquire the necessary preparation in one semester, others require two or more semesters to achieve the competence sufficient for successful performance in the College curriculum. These students must re-enroll in one or more of the courses until they attain the course objectives.

Credit in Basic Studies courses does not apply toward a degree.

01, 02, 03, 04. English for Speakers of Other Languages [3-2-2]

A pre-college course for students who have completed or nearly completed high school in their native countries but whose English is not sufficient for unimpeded progress in college-level work at an English language college or university. Students who have not completed their high school education are encouraged to prepare for the General Educational Development (GED) Test. This can be done in part through this course and/or the courses designed specifically for that purpose offered in the local Adult Education Programs.

This course is divided into two parts: the first, a class session, will develop active knowledge of structures (speaking and writing) and reading ability in various subject areas; the second, a laboratory session, will provide the student, under the instructor's guidance, an opportunity to work in areas of special interest or difficulty.

Students will be placed in the appropriate course (01, 02, 03, 04) based on their knowledge of English.

010. Basic Studies Reading [3-2-3]

Taught both semesters.

Instruction and guided individual practice in major reading and study skills, including textbook study, lecture note-taking, library use, examination techniques, vocabulary, recall, and organizing.

020. Basic Studies Writing [3-2-3]

Taught both semesters.

Extensive practice in using the major conventions of formal English prose. Special attention will be devoted to the writing problems of individual students.

030. Basic Studies Mathematics [3-3-0]

[3-3-0]

Taught both semesters.

Topics include sets, properties of real numbers, polynomials, factoring, algebraic fractions, linear equations and inequalities, radicals, quadratic equations, graphs, and systems of equations.

Biology

Professors: Edwards, Markusen, Pugh, and Wise

Associate Professors: Bankes (Chairman), and Olson

Assistant Professors: Cones, Mollick, and Simmons

The aims of the Department of Biology and Environmental Science are to acquaint students with the body of knowledge in biology and environmental science and to teach them to apply this knowledge usefully and responsibly. The Department is organized to enable the major student to survey the entire field of biology and also specialize in one of various areas, including botany, cell biology-biochemistry, environmental science, ornamental horticulture, the premedical-pre dental area, teaching, or zoology.

A student may also specialize in Parks, Open Space, Recreation, and Natural Resource Management. Courses that are a part of the affiliated B.S. Degree Nursing Program with Old Dominion University are also offered by the Department. It serves students who wish to complete their undergraduate work in specialized programs, including health and agricultural programs, at other institutions.

A minimum of forty hours is required for a concentration in biology and environmental science. The student may elect not to count the introductory courses (Biology 101-102) among the hours counted in his or her major requirement. (If the student so

elects, the Registrar must be notified prior to the completion of ninety hours.) A student who earns an A or B grade in Biology 101 may receive departmental permission to substitute an upper-level course for Biology 102. The required courses for majors are 307, 313, 313a, 490, and one botany course exclusive of 217, 303, 311, 415, and 416. The remaining biology hours are to be selected with the aid of the student's adviser. Biology majors are expected to take the laboratory course that corresponds to each lecture course.

Majors must take Chemistry 121-122, 125-126, 245, 321-322, 326; Mathematics 140; and Physics 103-104 or Physics 201-202. The program should include six to ten hours of non-biology electives as well as a foreign language. If the usual supporting courses required by the Department are inappropriate for the student's goals, the student and his or her adviser may prepare an alternate program at the beginning of the junior year or earlier. An alternate program is usually necessary for students in the Horticulture Track.

Students in the Parks, Open Space, Recreation, and Natural Resource Management track must work out a program, including a required minor in political science and supporting courses in physical education, with the aid of a departmental adviser.

Unless otherwise specified, the prerequisite for all courses above the 100 level is successful completion of Biology 101-102, or consent of the instructor.

The minimum requirement for a minor in Biology and Environmental Science is twenty hours of departmental course work above the 100 level. No specific courses are required. A coherent program in keeping with the student's aims and objectives should be planned by the student, his or her major adviser, and a minor adviser from the Department of Biology and Environmental Science.

Sample Programs for Biology Majors

Course	Hours
Freshman Year	
Biology 101-102	8
Chemistry 121, 125	5
Chemistry 122, 126	5
Mathematics 130, 140	7
Sophomore Year	
Biology 307	4
Physics 103-104 or 201-202	8
Foreign Language	8
Biology Electives	8
Humanities	3
Junior Year	
Education 341-303	6
Psychology 312	3
Biology 307, 313, 313a	8
Biology Electives	12
Senior Year	
Biology Electives	11
Biology 490	3
Social Science	6
Humanities	3
Foreign Language	6
Elective	1
Total	
	30

English 101-102	6
Sophomore Year	
Biology 313, 313a	4
Biology Elective	4
Chemistry 245, 321	5
Chemistry 322, 326	5
Social Science	6
Physical Education	4
Humanities	3
Elective	1
Total	
	32

Junior Year	
Biology 307	4
Physics 103-104 or 201-202	8
Foreign Language	8
Biology Electives	8
Humanities	3
Total	
	31

Senior Year	
Biology Electives	11
Biology 490	3
Social Science	6
Humanities	3
Foreign Language	6
Elective	1
Total	
	30

Sample Program for Biology Majors With Teaching Certification

Course	Hours
Freshman Year	
Biology 101-102	8
Chemistry 121, 125	5
Chemistry 122, 126	5
Mathematics 130, 230	7
Physical Education	4
English 101-102	6
Sophomore Year	
Chemistry 245, 321	5
Chemistry 322, 326	5
Physics 103-104 or 201-202	8
English (200 level)	3
History 201-202	6
Psychology 201-203	6
Junior Year	
Education 341-303	6
Psychology 312	3
Biology 307, 313, 313a	8
Biology Electives	12
Total	
	29

Senior Year	
Biology Electives	12
Biology 490	1
English (200 level)	3
Education 401s	6
Educations 403s, 414	6
Physical Education 321	3
	31

Sample Program for Biology and Environmental Science Majors with Specialization in Ornamental Horticulture

Course	Hours
Freshman Year	
Biology 101-102	8
Chemistry 103-104, 105-106	8
Mathematics 110, 120	6
English 101-102	6
Humanities	3
	31
Sophomore Year	
Biology 204, 204a	4
Biology 217	4
Biology 206	4
Electives	6
Physical Education	4
Social Science	6
Humanities	3
	31
Junior Year	
Biology 307	4
Physics 103-104 or 201-202	8
Electives	6
Biology 303	4
Biology 311	4
Biology 304	4
	30
Senior Year	
Electives	9
Biology 490	1
Biology Elective	4
Biology 415	4
Biology 416	4
Biology 308 or 305	4
Social Science	6
	32

101-102. Principles of Biology [3-3-0] [3-3-0]
Taught both semesters.
Basic principles of biology as revealed by research and experimentation; the relation

of these principles to the success of living organisms.

101a-102a. Principles of Biology Laboratory [1-0-3] [1-0-3]

Prerequisite: Concurrent or previous registration in Biology 101-102.

205. Introduction to Genetics [3-3-0]
Taught fall semester.

Principles of heredity and variation. Discussion of traditional genetic tools; representative life cycles; application to human genetics and social issues. (Not intended for the usual biology major. However, students in certain biology specializations may use this course to satisfy the departmental requirement.)

205a. Introduction to Genetics Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in Biology 205. Taught fall semester.

206. Plant Taxonomy [4-3-4]

Prerequisite: Biology 101-102 or consent of instructor. Taught fall semester, 1978.
Phyletic relationships of flowering plants and ferns; principles of classification and identification of local flora.

207. Pioneer Biology-Living Off the Land [3-3-0]

A study of the interdependence of man and his environment through investigating and experiencing pioneer living practices. Home-site selection and construction, agricultural practices, edible wild foods, weaving, folk and natural medicine, and modern aspects of homesteading are discussed. (Cannot count as credit toward the major.)

212. Microbiology and Man [4-3-2]

Prerequisite: Biology 101-102 or Biology 213, 214.

Elementary principles of bacteriology; emphasis on microorganisms as etiological agents in disease; practical methods of disinfection; factors of infection and immunity.

213, 214. Human Anatomy and Physiology [4-3-2]

No prerequisites. Taught both semesters. Comprehensive and systemic study of the normal living processes; structure and function of the human body.

213a, 214a. Human Anatomy and Physiology Laboratory [1-0-2] [1-0-2]

Prerequisite: Concurrent or previous registration in Biology 213, 214.

215. Biological Evolution [3-3-0]

Taught spring semester.
Principles of biological evolution; detailed discussion of natural selection, adaptation, population genetics, isolating mechanisms, and speciation.

216. Nutrition [3-3-0]

Taught fall semester, 1978.
A survey of specific dietary requirements, roles of nutrients, effects of nutrient deficiencies, vitamins, minerals, food absorption and utilization, naturally occurring toxins, food additives, residues, food technology, proteins, and protein quality.

217. Plant Materials for Landscape Use [4-3-4]

Prerequisite: Biology 206 or consent of instructor. Taught spring semester, 1978.
Identification and design characteristics of ornamental plants.

295. Elementary Topics in Biology

Prerequisite: Consent of Instructor.
Taught both semesters.
A variety of biological or biologically related topics not included in the regular curriculum will be offered. These topics will fill a particular need not filled by regular courses. Biology majors may apply no more than nine credits in topics toward graduation.

301. Microbiology [4-3-4]

Prerequisite: Chemistry 103-104 and Chemistry 105-106 or Chemistry 121-122 and Chemistry 125-126. Taught fall semester.

Introduction to the morphology, physiology, and genetics of bacteria and the bacterial viruses.

302. Oceanography - An Introduction to Marine Science [3-3-0]

Prerequisite: Chemistry 121-122 and Chemistry 125-126 or consent of instructor. Taught fall semester.

Physical and chemical properties of the hydrosphere; application of basic ecological principles to the marine environment; history of oceanography.

302a. Oceanography - An Introduction to Marine Science Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in Biology 302. Taught fall semester.

303. Landscape Horticulture [4-3-4]

Prerequisite: Biology 217 or consent of instructor. Taught spring semester, 1978.
Principles of good landscape design; use, choice, and cultural practices employed with ornamental plants.

304. Soils [4-3-5]

Prerequisite: Chemistry 103-104 and 105-106 or Chemistry 121-122 and 125-126. Taught spring semester, 1978.
Characterization of soil as a natural system, emphasizing its physical, chemical, and biological properties as they relate to agricultural, urban, and waste disposal uses.

305. Plant Anatomy [4-3-4]

Taught fall semester, 1978.
Structure and arrangement of cells and tissues in higher plants; cytology, physiology, taxonomy, ecology, evolution, and development included where related to anatomy.

306. Environmental Conservation [3-3-0]

Prerequisite: Completion of distribution science requirement or consent of instructor. Taught fall semester.
Study of soil, forest, land, water, air, wildlife, and recreational resources; their interrelationships and modifications by man; steps necessary to use them wisely for present and future generations.

306a. Environmental Conservation Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in Biology 306. Taught fall semester.

Field observation and study of soil, forest, land, air, wildlife, and recreational resources; their use and misuse. One overnight field trip will be required.

307. Cell Biology [4-3-4]

Prerequisite: Chemistry 104, 106 or 321, 325 are suggested, or consent of instructor. Taught fall semester.

Physiology at cellular levels of organization, cell structure and function, proteins and enzyme action, cell energy transformations, cell regulatory processes, and cell differentiation.

308. Plant Physiology [3-3-0]

Prerequisite: One year of chemistry. Taught spring semester, 1979.

A survey of the processes involved in plant growth, mineral nutrition, water relations, translocation, metabolism, and photosynthesis. Control of plant growth and development by hormones, growth regulators, light, and temperature.

308a. Plant Physiology Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in 308. Taught spring semester, 1979.

309. Embryology of Vertebrates [3-3-0]

Taught fall semester.

Comparative description and analysis of the principles and processes leading to the establishment of the adult vertebrate body plan; gametogenesis.

309a. Embryology of Vertebrates Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in Biology 309. Taught fall semester.

A laboratory study of the embryology of vertebrates, emphasizing the chick and frog; gametogenesis.

310. Morphology and Phylogeny of Plants [4-3-4]

Taught fall semester, 1977.

Morphology of representative plants studied in the laboratory and field; emphasis on

reproductive processes and phylogenetic relationships.

311. Plant Propagation [4-3-4]

Prerequisite: Biology 217 or consent of instructor. Taught fall semester, 1978.

Principles and practices of horticultural plant propagation.

312. Invertebrate Zoology [4-3-4]

Taught spring semester.

A survey of invertebrate biology, including morphology, evolutionary relationships, ecology, physiology and behavior.

313. Genetics [3-3-0]

Prerequisite: Two semesters of college chemistry and two semesters of college mathematics. Taught spring semester.

Mechanisms of inheritance, mutation, recombination, genetic expression and regulation at all levels of biological organization.

313a. Genetics Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in Biology 313. Taught spring semester.

314. Pathophysiology [4-4-0]

Prerequisite: Biology 212, 213, 214, and two semesters of chemistry.

Causes and mechanisms of the physiological changes associated with deficiency, infectious and functional diseases. Major entities, such as diabetes mellitus, are treated in detail, while rare disorders are omitted.

395. Intermediate Topics in Biology

Prerequisite: Consent of instructor.

Taught both semesters.

A variety of biological or biologically related topics not included in the regular curriculum will be offered. These topics will fill a particular need not filled by regular courses. Biology majors may apply no more than nine credits in topics toward graduation.

403. Marine Biology [3-3-0]

Prerequisite: Previous registration in Biology 302, 312, or consent of instructor. Taught spring semester.

Taxonomic and ecological investigations of the major marine groups; pollution ecology;

applied marine science.

403a. Marine Biology Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in 403. Taught spring semester.

404. Animal Histology [4-3-4]

Taught fall semester, 1977.

Comparative study of cells and tissues of invertebrate animals.

407. General Ecology [4-3-4]

Taught spring semester.

Survey of major biotic communities and factors controlling the relationship of organisms in their environment. Community structure and metabolism, ecosystems, populations and their distribution emphasized. Several weekend trips will be required.

409. Comparative Anatomy of Vertebrates [4-3-4]

Prerequisite: Biology 309 recommended. Taught spring semester.

General chordate anatomy, emphasizing the vertebrates, considered on a comparative and phylogenetic basis. Laboratory work includes dissection and study of lamprey, sand shark, necturus, cat, and other supplementary forms.

414. Introductory Biochemistry [3-3-0]

Prerequisite: Chemistry 245, 321-322, 326. Taught spring semester, 1978.

A survey of the principle constituents of living organisms; the roles and metabolic interconversions of carbohydrates, lipids, proteins, and nucleic acids.

414a. Introductory Biochemistry Laboratory [1-0-4]

Prerequisite: Concurrent or previous registration in 414. Taught fall semester, 1977.

415. Pathology of Ornamental Plants [4-3-4]

Prerequisite: Biology 217 or consent of instructor. Taught fall semester, 1977. Identification and control of pathogens and insects of ornamental plants.

416. Nursery and Garden Center Management [4-3-4]

Prerequisite: Biology 217 or consent of instructor. Taught spring semester, 1979.

Principles and practices involved with wholesale production and retailing of ornamental plants.

417. Biogeography [3-3-0]

Prerequisite: Junior standing and a minimum of 10 semester hours of biology. Taught fall semester, 1977.

Descriptive and interpretative study of the basis of past and present distribution of major plant and animal units of the world.

490. Seminar [1-1-0]

Prerequisite: Biology majors during junior or senior year. Taught both semesters.

Discussion by faculty and students of contemporary problems in biology; presentation of seminar required. One credit is given for two semester's enrollment.

495. Advanced Topics in Biology

Prerequisite: Upper division standing or consent of instructor. Taught both semesters.

A variety of biological or biologically related topics not included in the regular curriculum will be offered. These topics will fill a particular need or will be an advanced treatment of a regular course. Biology majors may apply no more than nine credits toward graduation.

499. Problems in Biology

Prerequisite: For junior and senior biology majors only. Taught both semesters.

An opportunity for independent research or literature review with guidance of a faculty adviser. No more than three credits may be submitted for the degree.



Chemistry

Professors: Hammer, Sacks (Chairman)
Assistant Professor: Chang
Instructor: Demirgian

The Chemistry Department wishes to help students gain a better insight into the world in which we live through an understanding of chemistry. For students taking a one-year sequence, the major areas of chemical investigation—inorganic, organic and biochemistry—are considered in lecture (Chemistry 103-104) and lab (Chemistry 105-106). For science majors, these areas and others are considered in greater depth over a longer period. Majors either enter the sequence for science majors directly or take a part of the 103 sequence to reach a level of proficiency indicative of success in the majors' sequence. Diagnostic tests, offered by the Counseling Center, help the student select the appropriate starting course. Students without a good background in math (at least two years of high school algebra) are urged to take the special mathematics diagnostic test early in the summer so that enrollment in the Basic Studies mathematics program in August will be possible. Science majors who begin in Chemistry 103 may start the majors' sequence in the spring with Chemistry 121 and 125 and should plan to take Chemistry 122 and Chemistry 126 before the end of the summer session (Chemistry 105 is optional in this sequence).

Chemistry remains an experimental science. Reflecting this, laboratory work is primarily investigatory. Beginning with the first lab course, students learn techniques and methods usable at all levels of study, research, or industrial application. Modern instrumentation is introduced early and used extensively. Laboratory experience is complemented by lectures given by a staff with both academic and industrial research experience.

Several course sequence options are available to students majoring or minoring in chemistry. Programs are individually arranged according to the student's career objectives. Options include preparation as a chemist or chemistry teacher, work in

environmental control, and preparation for further study in such fields as medicine, dentistry, or other health-related fields, chemical engineering, and many other chemically-related occupations.

Students wishing to minor in chemistry should consult with the chairman of the Department. In general, one course beyond Chemistry 322 and Chemistry 326 (Organic Chemistry and Organic Chemistry Laboratory) and Chemistry 490 (Seminar) are required.

Students wishing to major jointly in chemistry and another discipline should consult with advisers in both departments. Students seeking secondary education certification should note the requirements of the Education Department and carefully plan their programs with advisers from both departments.

The major in chemistry requires forty-two credit hours in chemistry, including the following courses: 121-122, *General Chemistry*; 125-126, *General Chemistry Laboratory*; 245, *Experimental Chemistry*; 321-322, *Organic Chemistry*; 326, *Organic Chemistry Laboratory*; 341-342, *Physical Chemistry*; 345-346, *Physical Chemistry Laboratory*; 360, *Instrumental Methods*; 480, *Organic Synthesis*; 490, *Seminar*; 495, *Advanced Topics*. Courses in Inorganic Chemistry and/or Biochemistry (Biology 414) may be taken to satisfy the remaining credit hour requirements.

Sample Program

Course	Hours
Freshman Year	
Chemistry 121-122	6
Chemistry 125-126 (lab)	4
Mathematics 130, 140	7
English 101-102	6
Physical Education	4
Related field or distribution requirements	6-8
	33-35
Sophomore Year	
Chemistry 321-322	6
Chemistry 245, 326 (lab)	4
Mathematics 240	3
Physics 201-202	8
German 101-102	8
Humanities elective	3
	32

Junior Year	
Chemistry 341-342	6
Chemistry 345-346	4
Chemistry 490	0
Chemistry 395 or 495	3
Physics, Biology or Mathematics elective	3-4
Language	6-8
Electives	3-6
	25-31

Senior Year	
Chemistry 360	2
Chemistry 490	1
Chemistry 495	6
Chemistry 499	3
Electives	18
	30

103-104. Introductory Chemistry [3-3-0] [3-3-0]

Co-requisite: Chemistry 105-106 or consent of department. 103 taught in fall, spring, and summer semesters; 104 taught in spring and summer semesters.

First semester: a survey of the fundamentals of general and inorganic chemistry. Second semester: a survey of organic and biochemistry. (Not intended as a course for science majors; however, Chemistry 103, with or without Chemistry 105 may be taken for elective credit as an introductory course to Chemistry 121 and Chemistry 125.)

105-106. Introductory Chemistry Laboratory [1-0-3]

Co-requisite: Chemistry 103-104. 103 taught in fall, spring, and summer semesters; 104 taught in spring and summer semesters.

An introduction to the experimental techniques and methods of chemistry.

121-122. General Chemistry [3-3-0] [3-3-0]

Co-requisite: Chemistry 125-126 or consent of department; prerequisite: Mathematics 110 or satisfactory scores on chemistry placement examination. 121 taught in fall, spring, and summer semesters; 122 taught in spring and summer semesters.

The fundamental principles and laws of general chemistry. Students following the 103, 121-122 track are referred to the

statement in the chemistry program description.

125-126. General Chemistry Laboratory

[2-0-5] [2-0-5]

Co-requisite: Chemistry 121-122 or consent of department. 125 taught in fall, spring, and summer semesters; 126 taught in spring and summer semesters.

Application of experimental methods to the solution of chemical problems.

245. Experimental Chemistry Laboratory

[2-1-4]

Prerequisite: Chemistry 126. Usually taken concurrently with Chemistry 321. Taught in fall semester.

Chemical kinetics and equilibrium applied to analytical procedures, with emphasis on instrumental methods.

321-322. Organic Chemistry [3-3-0] [3-3-0]

Co-requisite: 245 or 326 or consent of department; prerequisite: Chemistry 122 and 126. 321 taught in fall semester; 322 taught in spring semester.

Chemistry of the organic compounds of carbon. Structure, reactivity and reaction mechanisms.

326. Organic Chemistry Laboratory [2-0-5]

Co-requisite: Chemistry 322; prerequisite: Chemistry 245. Taught in spring semester. Introduction to common techniques in synthesis and qualitative organic analysis.

341-342. Physical Chemistry [3-3-0] [3-3-0]

Co-requisite: Chemistry 345 or 346 or consent of department; prerequisite: Chemistry 322, 326; Mathematics 240; and Physics 202. 341 taught in fall semester and 342 taught in spring semester.

A study of the interactions of matter and energy. Thermodynamics; atomic and molecular structure; solution; kinetics; electrochemistry; quantum chemistry.

345-346. Physical Chemistry Laboratory

[2-0-5] [2-0-5]

Co-requisite: Chemistry 342; prerequisite: Chemistry 322, 326.

Techniques used in the study of thermochemistry, electrochemistry, states of mat-

ter, molecular structure.

360. Instrumental Methods in Chemistry
[2-1-4]

Taught in spring semester.

Theory and operation of major instruments used in modern analytical work.

395. Special Topics.

Selected topics for majors and non-majors with minimum science background.

480. Techniques in Organic Synthesis
[2-1-5]

Prerequisite: Chemistry 322, 326. Taught spring semester, 1978.

Investigation of modern techniques of organic synthesis.

490. Seminar [1-1-0]

Prerequisite: Departmental consent required. Taught spring and fall semesters. Review of current periodicals. Reports of student or faculty research. Required for senior students, who must present one seminar.

495. Advanced Topics in Chemistry

Prerequisite: Consent of instructor.

Taught spring and fall semesters.

Topics from all phases of chemistry will be presented. Credit, lecture, and laboratory to be arranged.

499. Independent Study and Research

Prerequisite: Consent of department chairman. Taught spring and fall semesters. May be taken for up to three credits.



Classical Studies

Associate Professor: Jones (Chairman)

The principal objectives of the Department of Classical Studies are as follows: (1) to contribute broadly to the humanistic education of the undergraduate student both through courses conducted in English in the area of Classical Civilization and through courses involving the reading of Latin literature in the original; (2) to offer to students in related fields specialized training in areas of Classical Civilization and in the Latin language for vocational or professional purposes; and (3) to provide the general student and the surrounding community with opportunities for personal enrichment and development through significant engagement with some major texts and ideas of our cultural heritage.

Classical Civilization

The following courses do not require knowledge of Latin or Greek and are conducted entirely in English. Classical Civilization 200 will satisfy three hours of the Humanities Distribution Requirement.

100. Word Origins and Meanings [3-3-0]
Taught both semesters.

A systematic program designed to aid in the comprehension of words encountered in college-level reading. Analysis of Latin and Greek components in English words, derivatives, Latin phrases and abbreviations, and word histories. Useful for the general student and for students in natural and social science, business, humanities, education, and communications.

200. Mythology [3-3-0]
Taught both semesters.

A thorough study of the principal classical myths, their Eastern origins and connections with Graeco-Roman civilization, and their subsequent literary, anthropological, artistic, and psychological influence on Western culture.

301, 302. Greek and Roman Civilization
Same as History 301, 302. 301 taught fall semester and 302 taught spring semester, 1977-78. [3-3-0] [3-3-0]

Western civilization from its beginnings to the end of the Roman Empire. First semester includes the civilization of the Near East, Egypt, and Greece to the time of Alexander the Great. Second semester includes Roman Civilization from the time of the Etruscans to the Byzantine age.

303. The Birth of Drama [3-3-0]

Both semesters, 1978.

Explorations of the origins, nature, and function of classical drama and of its influence upon subsequent literature of the Western world. Reading and discussion of masterpieces of Greek and Roman drama.

Latin

101, 102. Elementary Latin. [4-3-1][4-3-1]

Independent study; permission of instructor required.

Programmed course using self-teaching techniques to communicate the fundamentals of the language.

Communications

The Department of Communications offers courses in the theory and practice of using various symbolic media to transmit, apprehend, and evaluate information and ideas.

180. Advanced Reading Technique [3-2-2]
Prerequisite: Sophomore standing or permission of instructor. Taught in spring semester.

Theory of the reading process and techniques directed toward efficient study and reading: speed, concentration, recall; concrete, inferential, and evaluative comprehension; critical discussions of writings which present different points of view.

260. News Writing and Reporting [3-3-0]
Prerequisite: English 101-102. Taught in fall semester.

A journalism course emphasizing the fundamentals of gathering and evaluating news and constructing news stories and features.

261. Advanced News Writing and Reporting [3-3-0]

Prerequisite: Communications 280. Taught in spring semester.

Detailed study of the techniques of securing news as well as the sources of news in the fields of public interest. Development of judgment in the style of news writing with emphasis on clarity and maturity of expression. Work in editorials, columns, reviews, and techniques of criticism. Practical exercises and assignments to cover actual news situations.

270. Introduction to Photography [3-2-3]

Introduction to photography and photographic processes. Fundamentals of lighting, exposure, processing, printing, and composition. Introduction to color. Camera required; students must have the use of a 35mm or 2 1/4 square camera, with either range finder or reflex viewing and adjustable focus and f/stops. A light meter is required (this may be built into the camera). Students will be required to furnish film, film developer, and printing paper.

395-1. Library Research and Bibliography [3-3-0]

Taught fall semester.

Introduction to research in the library, recommended for students who want hands-on guidance in improving their library skills. Development of competence in organization and conduct of research, understanding of library organization and efficient use of library tools, and in construction of bibliographies for term papers or other research projects.

395-2. Publications Photography [3-2-3]

Prerequisite: Communications 270 or equivalent and consent of the instructor. Principles and practices of publications and journalistic photography. The picture story, picture essay, and picture sequence; spot news and sports photography; combining words and pictures effectively; marketing techniques. Camera required; students must have the use of a 35mm or larger camera with either range finder or reflex viewing and adjustable focus and f/stops.

Computer Science

Assistant Professors: Hilliard, Nason (Chairman), Staman, Wang

The Department of Computer Science offers a curriculum that provides broad coverage both of computer theory and of the many varied applications of the computer. Because of the interdisciplinary nature of computer science, the Department recognizes a major responsibility to provide instruction for students earning degrees in other fields. In this respect the Department operates in support of many programs offered by the College.

While the Department does not currently offer a major in Computer Science, it does administer an interdisciplinary degree in Management Information Science. In addition, a student majoring in some other discipline may earn a minor in Computer Science. This minor program is especially appropriate for science, mathematics, and business majors as preparation for advanced study or employment. The minor program consists of eighteen to twenty-one hours with Computer Science 220 or its equivalent required as the first course. No other specific courses are required, but students should consult Department members in planning their programs. The following recommendations are made relative to specific orientation in computer science: (1) a quantitative-based minor should include Computer Science 250, 360, 430, and 431; (2) a computer theory minor should include Computer Science 310, 330, 340 and any of the Computer Science topics courses (395 or 495); and (3) a business-oriented minor should include Computer Science 240, 430 and 440.

Computer Science 220 is designed for MIS, business, science, mathematics or engineering students, and is a prerequisite for all other Computer Science courses except Computer Science 350. Of the credits required for graduation, a student may present credits from either Computer Science 200 or 220, but not both.

200. Computers and Society [3-3-0]

Taught fall semester.

Introduction to digital computer systems,

their hardware and software. Emphasis on applications and trends in computer usage, with consideration of the impact of computers on society.

220. Computer Structure and Programming [3-3-0]

Prerequisite: Recommended: one semester of college-level mathematics. Taught both semesters.

Introduction to basic digital computer concepts and structures including input/output devices, data storage and retrieval, and operating systems. Computer programming, with FORTRAN as the primary language, will be introduced.

240. Business Data Management Techniques [3-3-0]

Prerequisite: Computer Science 220 or equivalent experience. Taught both semesters.

Computer-based business systems are introduced. File structure and maintenance are treated. Emphasis is placed on COBOL programming.

250. Computerized Mathematical Techniques [3-3-0]

Prerequisite: Computer Science 220 or equivalent experience; Mathematics 130 or equivalent. Taught both semesters.

Computer programming of problems of a mathematical nature, such as solving for the roots of an equation or systems of equations. FORTRAN will be the primary programming language.

310. Programming Language Concepts [3-3-0]

Prerequisite: Computer Science 240 or Computer Science 250. Taught fall semester.

Basic concepts dealing with information binding, arithmetic, string handling, data structures, storage and mapping, input/output, and execution environment. Specialized concepts concerning recursion, multiprocessing, list processing and language extensibility. The FORTRAN, PL/I, APL, ALGOL, and SNOBOL languages will be examined.

330. Computer Organization [3-3-0]

Prerequisite: Computer Science 240, Computer Science 250, or consent of instructor. Taught fall semester.

An in-depth study of digital computer design and structure, both hardware and software. The functional organization of the computer will be examined from a logic design point of view through the application of Boolean Algebra. Special emphasis will be placed on the logic elements used in implementing computer functions.

340. Systems Programming [3-3-0]

Prerequisite: Computer Science 330 or permission of the instructor. Taught spring semester.

An assembly language programming course, specifically oriented toward the IBM S/360-370 assembly language. Extensive use of examples in the area of systems programming will be included.

350. Systems Analysis [3-3-0]

Prerequisite: Computer Science 200 or Computer Science 220. Taught fall semester.

An introduction to the analysis design of computer-based business information systems, including data communication requirements.

360. Modeling and Simulation [3-3-0]

Prerequisite: Computer Science 220 and one year of college mathematics. Taught spring semester.

Introduction to model building and simulation using the digital computer. The specialized language GPSS will be applied to the study of discrete stochastic systems. Consideration to be given to experimental design, validation through statistical analysis, and optimization techniques.

395. Elementary Topics [3-3-0]

Prerequisite: Computer Science 220; Computer Science 240 or Computer Science 250 or consent of instructor. Taught both semesters.

Topics in computer science of particular interest such as data structures, advanced computer organization, and communications systems. A maximum of six credits may be offered toward satisfying a degree requirement.

430. Operations Research [3-3-0]
Prerequisite: Computer Science 220; Mathematics 260. Taught fall semester. Introduction to Operations Research. The history and development of OR. Topics include linear programming, duality theory, network flow theory including an introduction to PERT, dynamic programming, game theory, and simulation.

431. Advanced Operations Research [3-3-0]
Prerequisite: Computer Science 220; one semester of calculus. Advanced techniques in Operations Research. Topics include probability, statistical inference, decision theory, queuing theory and its applications, inventory theory, Markov chains, non-linear programming, and classical optimizations.

440. Information Systems Analysis and Design [3-3-0]
Prerequisite: Computer Science 220 and Computer Science 240. Taught spring semester. Introduction to the concepts and techniques of analysis and design for information systems. Data base organization and processing techniques, on-line systems, hardware and software requirements relating to information retrieval and data display. Student teams will design information systems for a real or hypothetical organization.

495. Advanced Topics [3-3-0]
Prerequisite: Computer Science 220, Computer Science 330, and Computer Science 340; consent of instructor. Taught both semesters. Advanced computer science topics such as operating system principles and design, and compiler construction techniques.

499. Independent Research
Prerequisite: Senior standing and approval of the department. Taught both semesters. Individual research on an approved project, requiring computer solution and/or literature review. Credit will vary.

Economics

Professor: Booker
Associate Professor: Maniyar (Chairman)
Assistant Professor: Colonna

The Department of Economics, a member of the American Assembly of Collegiate Schools of Business, offers a concentration in economics for students seeking the Bachelor of Science in Business Administration. The department also provides theoretical and analytical tools of economic analysis for the business major in six concentrations: accounting, finance, management, marketing, retailing, and real estate. The concentration in economics is parallel in content and requirements to the baccalaureate degree in economics offered at other institutions.

To fulfill distribution requirements of the College, the department offers a basic course in economics designed to give the student understanding of economic systems. The Department also offers courses which complement and support other programs at the College. A minor is offered to students majoring outside the B.S.B.A. program. The courses required for a minor are Economics 201-202, 301, 303-304, and six additional hours above the 200-level economics courses.

For general distribution and basic core requirements, refer to the catalog section on Requirements for Degrees (B.S.B.A.). The concentration in economics requires the completion of eighteen credits, including these two required courses: Economics 303, *Intermediate Economic Analysis [Micro]*; Economics 304, *Intermediate Economic Analysis [Macro]*. Twelve credits are required from the following courses: Economics 302, *Public Finance*; Economics 351, *Urban Development Economics*; Economics 385, *Comparative Economic Systems*; Economics 391, *Contemporary Economic Issues*; Economics 420, *Business Conditions and Forecasting*; Economics 435, *History of Economic Thought*; Economics 451, *The*

Economics of Labor and Collective Bargaining; Economics 460, *Economics of Transportation*; Economics 470, *International Trade and Finance*; Economics 490, *Managerial Economics*; Economics 495, *Topics*.

Suggested Course Outline for Economics Concentration

Course	Junior Year	Hours
Economics 301		3
Economics Concentration		6
Business 311, 323		6
Math 125		3
Non-Business Electives		15
		33
	Senior Year	
Economics Concentration		9
Business 408		3
Non-Business Electives		19*
		31

* Upon waiver by the Registrar, the student may take up to an additional eighteen hours in business by declaring introductory courses in business as general electives.

200. Consumer Economics [3-3-0]
A functional course designed to meet the needs of individuals and families in dealing with the recognition and solution of growing and complex financial decisions. A practical approach to judgment and decision-making regarding average daily and lifetime economic decisions.

201-202. Principles of Economics [3-3-0]
Taught both semesters. An introduction to the analytical tools commonly employed by economists in determining the aggregate level of economic activity and the composition of output, prices, and the distribution of income. Problems related to these subjects are considered, and alternative courses of public policy are evaluated. First semester macroeconomics; second semester microeconomics.

225. Economics for Teachers [3-3-0]
Prerequisite: Economics 201-202 or consent of instructor. Taught once a year.

A survey course in economic fundamentals designed to provide educators with the methodological skills to convey effectively economic principles and analysis to elementary and secondary students. Development of teaching strategies and techniques for maximizing the learning outcomes in the field of economics will be stressed.

301. Money and Banking [3-3-0]
Prerequisite: Economics 201. Taught both semesters. An analysis of the monetary system with emphasis upon determinants of the money supply and the relationship between money and economic activity.

302. Public Finance [3-3-0]
Prerequisite: Economics 201-202. Same as Political Science 302. The nature and application of the fundamental principles of obtaining, managing, and disbursing funds for governmental functions at the local, state, and federal levels. The American tax system is given detailed consideration.

303. Intermediate Economic Analysis [3-3-0]
Prerequisite: Economics 201-202. Taught fall semester. A study of microeconomic theory as related to consumer behavior and demand, production and cost, market structures, distribution theory, and welfare economics.

304. Intermediate Economic Analysis [3-3-0]
Prerequisite: Economics 201-202. Taught fall semester. A study of classical, neo-classical, and Keynesian Macroeconomics. Economics analysis of national income, output, employment, price level, consumption, investment, rate of interest, demand for money and supply of money, and a study of monetary, fiscal, and other economic policies.

340, 341. Economic History of the United States [3-3-0] [3-3-0]
Same as History 340, 341. Taught 1977-78. The study of America's economic growth

and development from colonial times to the present. Includes the development of agriculture, manufacturing, trade and commerce, improved methods of transportation and communication, employer and employee organizations, governmental impact on the economy, and economic interdependence. Second semester begins with the late 19th century.

351. Urban Development Economics [3-3-0]
Prerequisite: Economics 201-202. Taught fall semester, 1977-78.

The theories, problems, and policies of urban and regional development, with emphasis on metropolitan finance, local government organization, economic base, location theory, and manpower utilization. The application of economic theory toward a solution of the urban problems of unemployment, education and training, welfare, housing, health, and transportation.

385. Comparative Economic Systems [3-3-0]

Prerequisite: Economics 201-202.

A comparative analysis of economic systems and the performance of such economies as measured by growth, equity, and efficiency criteria. Theoretical and actual systems such as the U.S., West and East Europe, the Soviet Union, China, Cuba, Norway, Sweden, and Japan are examined.

391. Contemporary Economic Issues [3-3-0]
Prerequisite: Economics 201 and 202.

A course concentrating on economic analysis of socio-political problems rather than economic theories. It is intended to convey the breadth, scope, and relevance of economic analysis to both public and private decision making of various economic issues. Students will learn to apply specific analytical techniques to various socio-economic problems.

395. Economic Topics [3-3-0]
Same as Business 495.

Topical seminars in economics to cover a variety of areas: comparative systems, economic thought and methodology, and

current economic issues. Only majors in business administration and economics may enroll.

420. Business Conditions and Forecasting [3-3-0]

Prerequisite: Economics 201-202. Taught fall semester.

A study of the cyclical fluctuations in the U.S. economy, with stress upon their causes and measurement, and a survey of methods of business conditions analysis. Emphasis on short-term and long-term methods of forecasting.

435. History of Economic Thought [3-3-0]

Prerequisite: Econ 201-202.

The development of economic analysis with emphasis upon Classical, Marxian, and Keynesian economics.

451. The Economics of Labor and Collective Bargaining [3-3-0]

Prerequisite: Economics 201-202. Taught spring semester.

A study of labor force and the demand for and supply of labor, wage determination, the procedures, agencies, legal framework, and major issues involved in labor-management relations. Attention is also given to the problems of negotiating and implementing a collective bargaining agreement.

460. Economics of Transportation [3-3-0]
Prerequisite: Economics 201 and 202.

Economic analysis and understanding of transportation systems. Rail, motor, water, air, and pipeline carriers are examined for importance, cost, utility, and inherent comparative advantages. The economic basis for government regulation and for transportation pricing with emphasis on competition and coordination. Transportation policy as reflected in current studies and legislation.

470. International Trade and Finance [3-3-0]

Prerequisite: Economics 201-202. Taught fall semester, 1978-79.

An analysis of the development of international trade theory. A study of balance of payments equilibrium, foreign exchange, international finance, and especially international economic developments since World War II.

490. Managerial Economics [3-3-0]

Prerequisite: Economics 201-202. Taught once a year.

Economic analysis of problems of particular importance for business firms. Emphasis on discovering policy criteria, identifying alternatives, and selecting and using economic, financial, and management information in decision theory.

495. Economic Topics [3-3-0]

Same as Business 495.

Topical seminars in Economics to cover a variety of areas: comparative systems, economic thought and methodology, and current economic issues. Only majors in business administration and economics may enroll.

499. Independent Research

Prerequisite: Senior standing and approval of the department. Taught both semesters. Individual research on an approved subject.

Education

Associate Professor: Friedman

Assistant Professors: Daly,

Jenkins (Chairman)

Instructor: Hornback

The Department of Education offers a Bachelor of Arts degree in Elementary Education with certification at the early childhood level and the upper grades. Courses are offered which allow majors in other departments to obtain the Collegiate Professional Certificate in secondary education. Through these programs, the Department seeks to meet the unique needs of students at an urban, non-residential college and to serve the metropolitan area in the specific fields of undergraduate and in-service teacher education.

These programs of studies are based on the belief that a strong liberal arts foundation, the intensive study of the principles and practices of education; and continuous application of knowledge and skills provide effective preparation for elementary and secondary teachers.

Elementary Education

A major in elementary education requires a minimum of thirty-nine semester hours, including Education 320, 325, 330, 332, 334, 336, 341, 420, 401, 405, 406, and 414. In order to satisfy the college distribution requirements for the bachelor's degree and meet State certification requirements for elementary teachers in Virginia at the early childhood level (NK-3) or the upper elementary level (4-7), the elementary education major must take the following: English 101-102, 430, and six hours of literature; Speech 201; six hours of mathematics; eight hours in the natural sciences; Physical Education 318, 321, and two activities courses; three hours of economics; three hours of geography; History 101 or 102 and 201 or 202; and Psychology 201, 308 or 311, and 312. In consultation with his or her adviser, the student (E, 4-7) should select a minimum of twenty-one hours in an academic area included in the curriculum of elementary schools; in consultation with his or her adviser, the student (N, NK-3) should

select electives which develop competence in early childhood education.

Secondary Education

The College offers courses which will fulfill the requirements for the Collegiate Professional Certificate in secondary education. Students may be endorsed to teach in the following subject areas: biology; English; English and speech, journalism, or dramatics; French; general science; German; government; history; history and social science (in addition to history courses, this endorsement requires twelve credits of political science, six of economics and six of geography); mathematics; and Spanish. Students may also be endorsed to teach psychology and sociology, but because of the lack of student-teaching opportunities and employment in these fields, students majoring in psychology or sociology should also meet certification requirements in another teaching field. As the College expands its offerings, other areas will be added.

State Certification Regulations for Teachers in Virginia

An applicant must possess a baccalaureate degree with a background of forty-eight hours in general education, including a minimum of (1) twelve hours in humanities. English composition is required, and the balance may be taken in foreign language, literature, speech, fine arts, music, and philosophy; (2) twelve hours are required in the social sciences. American history is required, and the balance may be selected from any of the following fields: history, anthropology, sociology, economics, political science, geography, and psychology; (3) twelve hours are required in laboratory science and mathematics with at least one course in each area; (4) four hours of health and physical education are required, including at least one course in each area.

It is recommended that all teachers take a course in speech and one in basic economics to satisfy in part the general education requirements.

Professional Requirements for Secondary Education

This program meets the professional education requirements for certification in

secondary education: Psychology 307, *Developmental Psychology*, or Psychology 309, *Psychology of Adolescence*; Education (Psychology) 312, *Educational Psychology*; Education 303, *Instructional Materials and Methods* (should be taken the semester before student teaching); Education 341, *Cultural Foundations of Education* (students are urged to take this course before enrolling in other education courses); and during one semester of the senior year Education 401, *Supervised Teaching*; Education 403, *Methods of Teaching in the Secondary School*; and Education 414, *Educational Measurements and Evaluation*. Education Minors

A minor in Secondary Education requires the completion of twenty-four semester hours: Psychology 307 or 309 and 312; and Education 303, 341, 401, 403, and 414. A minor in Elementary Education requires the completion of eighteen semester hours of education courses, including Education 312, 320, and 341. Students are strongly urged to take Education 341, *Cultural Foundations of Education*, before enrolling in other education courses.

Student Teaching

The elementary student teaching block of fifteen hours (Education 401, 405, 406, and 414) is offered in the senior year. Students must register for the entire student teaching block and may not register for other courses during that semester. The secondary student teaching block of twelve semester hours (Education 401, 403, and 414) is offered in the senior year. Students must register for the entire student teaching block and are permitted to carry one additional course that is scheduled to meet in the evening. Secondary student teaching is offered according to the following schedule: fall semester (English, mathematics, sciences); spring semester (history and social sciences, and modern languages).

Students who plan to student teach must meet the following criteria for admission to the program: they must (1) have achieved a grade point average of at least 2.0 (on a 4.0 scale) in courses completed prior to the semester of student teaching; (2) have earned a grade no lower than a C in each of these prerequisite courses (Elementary:

Education 320, 341, and 420, and Psychology 308 or 311 and 312; Secondary: Education 303 and 341 and Psychology 307 or 309); (3) have planned a program of studies designed to earn the Collegiate Professional Certificate; (4) have personal qualities necessary for successful teaching as indicated by recommendations and a personal interview; and (5) have good health and no disqualifying physical or emotional handicaps. Evidence of fitness to teach from the standpoint of physical or mental health may be required from a qualified physician. The prospective student teacher is encouraged to have liability or tort insurance, which can be obtained from a commercial source or through membership in the Student Virginia Education Association. Students must preregister for student teaching with the Director of Student Teaching before March 1 for the subsequent year.

Sample Program for Elementary Education Majors

Course	Hours
Freshman Year	
English 101, 102	6
Math 110, 120	6
Laboratory Science	8
History 101-102	6
Geography	3
Speech	3
	32
Sophomore Year	
English (200 sequence)	6
History 201, 202	6
Psychology 201	3
Economics	3
Physical Education 321	3
Physical Education activity	4
Electives	9
	34
Junior Year	
English 430	3
Psychology 308 or 311	3
Psychology 312	3
Education 320	3
Education 341	3
Education 332	3
Education 336	6
Physical Education 318	3
Electives	6
	33

Senior Year

Education 325	3
Education 330	3
Education 334	3
Education 414	3
Education 420	3
Education 405, 406N/E	6
Education 401N/E	6
Elective	3
	30

303. Instructional Materials and Methods—Secondary [3-3-0]

Prerequisite: Speech 201; Education 341; Psychology 312, 307, or 309; and fifteen semester credits in the subject of teaching choice; or consent of the instructor. Taught both semesters.

An introductory course in the organization of instruction, focusing on the application of basic concepts, skills, materials, and media.

312. Educational Psychology [3-3-0]

Same as Psychology 312. Prerequisite: Psychology 201. Taught both semesters. The application of psychological facts, principles, and methods to learning in the classroom, including skill development in evaluation of student performance as an aid to learning and teaching.

320. Developmental Reading [3-3-0]

Prerequisite: Psychology 308 or 311. Taught both semesters.

A basic course in the teaching of reading in the elementary schools. Emphasis is placed on reading readiness, word recognition skills, comprehension skills, study skills, skills needed for reading in the content areas, reading materials and methods currently being used in the elementary schools today, and evaluation. Field work is required.

325. Children's Literature [3-3-0]

Prerequisite: English 101-102. Taught both semesters.

A course dealing with the study of reading interests of children from the pre-school years through the elementary grades, criteria for evaluation, analysis and selection of children's books, the history of and the trends in publication of literature for children, the literature for children, and the

use of children's literature in the classroom.

330. Mathematics in the Elementary School [3-3-0]

Prerequisite: Math 110, 120 or equivalent. Taught both semesters.

A course designed to emphasize appropriate content, methods, and instructional materials for teaching mathematics in the elementary school. Current trends in the teaching of mathematics and a critical analysis of recent curriculum projects will be included.

332. Science in the Elementary School [3-3-0]

Prerequisite: Satisfactory completion of a two-semester laboratory science course. Taught both semesters.

A course on the approach to science instruction for elementary children focused upon the methods, materials, and literature of biological and physical science. Emphasis will be placed on the development of teaching skills using inquiry techniques and the processes of science.

334. Art in the Elementary School [3-3-0]

Prerequisite: Junior standing or consent of instructor. Taught both semesters.

A survey of the aims and philosophy of art education in the elementary school with emphasis on child growth and development through art. Direct experience with the techniques, materials, and processes of art adapted to the needs of children from nursery school through grade seven with emphasis on appropriate motivational and teaching methods.

336. Music in the Elementary School [3-3-0]

Prerequisite: Junior standing or consent of instructor. Taught both semesters.

A study of the principles, techniques, materials, and methods used in music programs in the elementary grades with emphasis on an integrated approach to the elementary music including singing, use of instruments, listening, reading music, and rhythmic activities.

341. Cultural Foundations [3-2-3]

Taught both semesters.

This course offers an appropriate theoretical background and practical examination of American education through the perspectives of the historian, sociologist, and philosopher. A thirty-hour laboratory observation/participation experience in the public schools is an integral part of the course. The schedule for this lab is arranged for each student individually. Students are urged to enroll in *Cultural Foundations of Education* prior to enrollment in other education courses.

395. Elementary Topics

Taught both semesters.

A variety of topical courses in education not included in the regular curriculum will be offered to satisfy changing needs and special interests of students. Offerings will vary from year to year. Credits will vary. A maximum of six credits may be applied toward graduation.

401. Supervised Teaching [3-2-25]

Prerequisite: Consent of the instructor. Taught both semesters.

A supervised teaching experience offered as part of the professional semester for prospective teachers. Students may register for the following sections: N(Nursery-Kindergarten), P(Primary), E(Elementary), S(Secondary). Students may register for three or six credits.

403. Methods of Teaching in the Secondary School [3-3-0]

Prerequisite: Education 303. Taught both semesters.

A study of the objectives, content, methods of instruction and research data in the respective teaching fields. The course deals with the problems of selecting and organizing content. Curriculum projects in each teaching field will be analyzed. In the fall semester, students may register for E(English), M(Mathematics), and S(Science); in the spring semester, they may register for L(Modern Languages) and H(History and Social Science).

405. Curriculum Organization and Instructional Procedures [3-3-0]

Prerequisite: Psychology 308 or 311.

Taught both semesters.

A study of the curriculum, methods, activities, media, and materials as tools for learning. Students may register for N (NK-3) or E (4-7).

406. Curriculum Organization and Instructional Procedures [3-3-0]

Prerequisite: Psychology 308 or 311. Taught both semesters.

This course focuses on the basic concepts, skills, teaching techniques, and instructional materials with emphasis on the planning of appropriate learning experiences in the areas of (1) language arts and (2) social studies. Students may register for N (NK-3) or E (4-7).

414. Educational Measurements and Evaluation [3-3-0]

Prerequisite: Consent of the instructor. Taught both semesters.

A course dealing with the identification and definition of instructional objectives in behavioral terms and the construction and selection of measuring and evaluative instruments to appraise these objectives and interpret the results in a meaningful way. Emphasis is placed on the construction of teacher-made tests and the interpretation of standardized tests. Students may register for S (Secondary), N (NK-3), E (4-7), P (Health and Physical Education).

420. Diagnostic Reading [3-3-0]

Prerequisite: Education 320. Taught both semesters.

A study of techniques for evaluation of reading progress, difficulties experienced by children in learning to read, diagnostic techniques for the classroom teacher, methods of differentiation of instruction, and corrective classroom methods. Field work required.

495. Advanced Topics

Taught both semesters.

A variety of topical courses in education not included in the regular curriculum will be offered to satisfy changing needs and special interests of students. Offerings will vary from year to year. Credit will vary. A maximum of six credits may be offered toward graduation.

English

Professors: Brackney, Millar, Sanderlin

Associate Professors: Chambers

(Chairman), Wood

Assistant Professors: MacLeod, Wolf

The study of literature holds many values for the student. Since man is concerned with such realities as life, love, the problem of evil, happiness, and death, literature enriches and clarifies life by contributing to an understanding of man's relationship to society, to his physical environment, to his inner self, and to God. Other studies seek similar ends, but in other ways. The method of philosophy and science is to abstract truth from experience; that of literature is to seize truth in experience. By concentrating the multifarious aspects into a unity, literature offers an understanding of the human being in a deeper and fuller way than a lifetime of experience rarely, if ever, affords.

Recent studies show that, as a pre-professional major, English provides invaluable training in the preparation for four outstanding professional areas: education, law, medicine, and business. The Department of English is determined that majors (1) reach that degree of mastery of advanced composition and rhetoric which is the *sine qua non* of a specialist in the language, (2) develop the analytical habit of mind characteristic of the liberal arts graduate who can succeed in many different professions, (3) master techniques of research and creative thinking which the study of literature provides, and (4) read judiciously and discriminately, realizing that the degree to which they invest time wisely and fruitfully will determine whether or not they will continue through the years to grow as persons, gaining in understanding of other people and of themselves and in capacity for significant pleasure.

English 101-102, English 103-104, or (if approved by the English Department) English 101-104 or English 103-102 is required of all students unless exempted by the English Department. Recommended placement of each student in English 101 or

English 103 is done on the basis of pre-college verbal scores and educational backgrounds as well as career interests and potential majors.

A major in English requires satisfactory completion of English 101-102 (or the equivalent as described in the preceding paragraph) and continued competence thereafter in written or oral expression (transfer students and others desirous of majoring in English, but weak in composition skills will be required to take English 209), English 201-202 and English 205-206, and at least twenty-four but not more than forty-two further credits in courses above the 200-level in the Department, with not more than six credits in writing courses above the sophomore level and no more than three credits in English 396 (topics) courses. Transfer students who major in English are required to complete both English 201 and English 202, but such students may be able to exempt themselves from either or both by taking CLEP tests or by taking the GRE special examination in the junior year and making a satisfactory score. Transfer students are also required to take the English 205, 206 sequence unless they bring credits for equivalent courses with them from their former colleges.

In addition, the student majoring in English is required to take six semester hours of *Shakespeare* (English 421, 422) or three semester hours of *Shakespeare* (either English 421 or 422) and three semester hours of either *Chaucer* (English 401) or *Milton* (English 426). English 490, *Senior Seminar*, is required of all majors; either English 430 or 431 is required for those who plan to teach English in the Virginia secondary schools. *Shakespeare* and *Senior Seminar* will be offered every year; all other upper-level courses will be offered at least every other year except when emergency situations prevent such repetition. Two semesters of English 341, 342, 343 will be offered every year, since some American literature is required of those planning to teach in the Virginia secondary schools, and English 490 will be offered every semester because it is required of those planning to teach in the Virginia elementary schools.

A balanced program that takes into account the student's abilities and career objectives will be worked out with the department adviser, assigned when the student declares an intention to major in English, usually towards the end of the sophomore year. Supporting courses, including history, fine arts, modern and ancient languages, philosophy, and speech will be recommended by the adviser.

Students wishing to minor in English must take twenty-one hours of work in English, of which eighteen must include English 201, 202; two of the following: English 341, 342, and 343; one of the following: English 421 or 422; and one of the following: English 401 or 426.

Students who have had an unusually excellent background in literature and writing either in school or in life experiences may be able to arrange for advanced placement in English so as to be excused from English 101-102 or at least from English 101. The English Department provides three different methods by which individual students may seek advanced placement: (1) through the CLEP testing program, details of which can be learned through the Counseling Office; (2) through the successful completion of Advanced Placement English in senior high school and the earning of an adequate score on the Advanced Placement Examination of the College Entrance Examination Board; or (3) through the earning of an outstanding record of A's and B's in a college-bound English section all the way through senior high school and of a College Board Verbal Score of approximately 600 or above. In the third case, students voluntarily submit to an advanced placement test given by the Department of English at Christopher Newport College, and the Chairman's Advisory Committee scores the test and decides upon advanced placement.

Superior students, upon application to the chairman of the English Department and at the discretion of the department, may be allowed advanced placement and, in some cases, credit for 101-102. A student who gets a B or better in 101 or 103 may be allowed with the permission of the instructors and the Dean of Academic Affairs to take 102 or 104 and 201 (or 205 or 207)

simultaneously.

Students who plan to teach in Virginia public schools must take History 201, 202 to fulfill their social science requirement and mathematics to fulfill the distribution requirement in philosophy or mathematics. **Sample Program for English Majors**

Course	Hours
Freshman Year	
English 101-102 (or 103-104)	6
Laboratory Science	8
Ancient or Modern Foreign Language	8
Social Science requirement	6
Physical Education	4
	32
Sophomore Year	
English 201-202	6
English 205-206	6
Social Science requirement	6
Foreign Language	6
Philosophy 101-110 or Math. distribution requirement (Va. certification)	6
Communications 201	3
	33
Junior Year	
300- and 400-level English courses	15
300- and 400-level electives	15
	30
Senior Year	
English 421-422 or English 421 and English 401 or 426	6
English 490	3
300- and 400-level English electives	6
300- or 400-level electives	15
	30

101-102. *Introductory Rhetoric and Composition* [3-3-0]

Taught each semester.

A study of the fundamental principles of composition and rhetoric, with paragraphs and themes arising from this study. A documented paper of approximately 1500-2000 words, related to the student's major or to a special subject of interest, is required of all 102 students. No student may take English 102 unless he or she has passed or earned credit for English 101 or its equivalent or has received the English Department's approval.

In some cases, the English Department will allow a student who has successfully completed 101 to take English 104 in place of 102.

103-104. *Composition, Rhetoric and Literature* [3-3-0]

Taught each semester.

A study of the principles of composition and rhetoric and an introduction to the major literary forms, with themes arising from this study. A documented paper of approximately 1500-2000 words related to a major literary genre is required of all students in English 104. No student may take English 104 or its equivalent unless he or she has passed or earned credit for English 103 or its equivalent or has received the English Department's approval. English 103-104 may substitute anywhere that English 101-102 is given as a prerequisite or requirement.

No student may take more than one six-hour sequence of 100-level English courses.

201, 202. *English Literature* [3-3-0] [3-3-0]

Prerequisite: 6-hr. freshman English sequence. Taught both semesters.

A survey of English literature, emphasizing the major writers and the dominant literary trends: first semester from *Beowulf* through Johnson; second semester from Blake to the present.

205, 206. *Survey of World Literature* [3-3-0] [3-3-0]

Prerequisite: 6-hr. freshman English sequence. Taught both semesters.

A study of literary masterpieces of the Western and Eastern worlds from classical to modern times, with special emphasis on literary perspectives: epic, romantic, satiric, tragic, comic, and ironic. All study will be based on English translations.

207, 208. *Literature and Ideas* [3-3-0] [3-3-0]

Prerequisite: 6-hr. freshman English sequence. Taught both semesters.

A study of literature as it interprets man's understanding of himself and society. Focuses on ideas of recurring interest, such as love, justice, religion, and nature. Especially recommended to non-English majors as their Humanities distribution requirement.



299. Advanced Composition [3-3-0]
Prerequisite: 6-hr. freshman English sequence. Taught spring semester.

A study of the principles of English composition as a continuation of the study and practice of these principles in English 101-102. Especially recommended to liberal arts majors who completed their 101-102 requirement before coming to the College and to all students who need further training and practice in correct and effective writing.

300. The Bible as Literature [3-3-0]
Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1978-79.

A literary study of the Old and the New Testament with emphasis upon artistic and humanistic merits of these collections.

301. English Literature of the Sixteenth Century [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1977-78.

A critical and historical study of the major prose, poetry, and drama of the sixteenth century, exclusive of Shakespeare.

302. English Literature of the Earlier Seventeenth Century [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1977-78.

A critical and historical study of the major

prose, poetry, and drama produced in England between 1600 and 1660, exclusive of Shakespeare and Milton.

303. English Literature of the Restoration and Earlier Eighteenth Century [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1978-79.

A critical and historical study of the major works of the Age of Dryden (exclusive of Milton) and the Age of Pope.

304. English Literature of the Later Eighteenth Century [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1978-79.

A critical and historical study of the prose, poetry, and drama created in England between 1740 and 1798, with some emphasis on the novel.

311. English Literature of the Romantic Movement [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1979-80.

A critical and historical study of the major Romantics (from Blake through Keats).

325. English Literature of the Victorian Age [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1979-80.

A critical and historical study of the major works produced in England from 1832-1901.

324. Twentieth-Century British Literature [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1978-79.

A critical and historical study of the major poetry, drama, and fiction produced in Great Britain and Ireland from 1900 to the present.

326. Major World Fiction of the Twentieth Century [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1979-80.

A critical study of the great fiction produced in countries of the Western World (including England and America) since the beginning of the century, with emphasis on the novel.

327. Major Dramas of the Modern World [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1978-79.

A critical study of the great dramas produced in countries of the Western World (including England and America) from 1880 to the present.

339. Survey of British Drama [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1977-78.

A critical, analytical, and historical survey of the major British dramas (English and Irish) from the Renaissance (exclusive of Shakespeare) to the end of the nineteenth century.

340. Survey of the British Novel [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1978-79.

A critical, analytical, and historical survey of selected British novels (English and Irish) from the middle of the eighteenth century to the end of the nineteenth century.

341. American Literature, I [3-3-0]

Prerequisite: At least one course in the

201-208 sequence. Taught in fall semester, 1977-78.

A critical and historical analysis of American writers from the beginning to Herman Melville.

342. American Literature, II [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester 1977-78.

A critical and historical analysis of American writers from Herman Melville to Edwin Arlington Robinson.

343. Modern American Literature [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1978-79.

A critical and historical analysis of American writers from Edwin Arlington Robinson to the recent past.

351. Fiction Writing [3-3-0]

Prerequisite: English 101-102 and consent of instructor. Taught fall semester.

Intensive exercises in the writing of fiction, with emphasis on the short story. Attention to selected examples by contemporary authors. Manuscripts read and discussed in class. Individual conferences.

352. Poetry Writing [3-3-0]

Prerequisite: English 101-102 and consent of instructor. Taught in 1978-79.

Intensive exercises in the writing of poetry. Analysis of contemporary techniques. Manuscripts read and discussed in class.

353. Business and Technical Writing [3-3-0]

Prerequisite: English 101-102. Taught in fall semester.

A study and practice of the writing of correct, effective, and jargon-free English as applied to business letters and business forms, reports, case studies, projects, and the like. Especially valuable to business majors, but suggested also to majors in such areas as psychology and sociology.

395. Special Topics in British and American

Literature [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught either semester. A seminar in major authors, literary concepts, or topics related to historical periods, with subject matter and instructor changing each time the course is offered. The seminar topic will represent both general student interest and the specialty (or research in progress) of an individual member of the department. Subjects will be chosen to appeal to students at large as well as to English majors. English majors may enroll only once for credit.

401. Chaucer [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1978-79.

A critical study of the works of Chaucer in the original Middle English with special emphasis on *The Canterbury Tales*.

421, 422. Shakespeare [3-3-0] [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught both semesters. A critical study of the major works of Shakespeare. At least one semester is required of all English majors.

426. Milton [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in fall semester, 1977-78.

A critical study of the major works of Milton with special emphasis on *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*.

430. Aspects of the English Language [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught both semesters. An introduction to the English language, with studies in linguistics, grammar (traditional, structural, and generative-transformational), and developments related to social changes. An emphasis on grammar and its relation to writing and the teaching of correct standard speech and writing.

431. Structural History of the English Language [3-3-0]

Prerequisite: At least one course in the 201-208 sequence. Taught in spring semester, 1978-79. An historical study of the development of the English language in England and the United States.

490. Seminar: Topic and Research [3-3-0]

Prerequisite: English 201-202 and junior or senior standing. Taught in spring semester. Required of all English majors.

An in-depth study of a particular writer, genre, or topic to be announced annually; study of research techniques and materials and general bibliographical sources; major documented paper required of each student.



Fine and Performing Arts

Professor: Van Orden

Assistant Professors: Hines, Hubbard
(Chairman), Koch

The Department of Fine and Performing Arts considers the arts in a critical and historical perspective as a record of man's experience and perceptions. The Department attempts to lead students to their own form of artistic creation through technical competence and self-awareness so that they can take their own measure of themselves and the world in which they live.

Major Program:

The Department offers a Bachelor of Arts Degree in Fine and Performing Arts. The program leading to this degree permits the student to concentrate in Theatre Arts, Fine Arts, or Music and requires six hours of supporting work in each of the other two disciplines.

In order to insure a coherent program with the inclusion of a suitable number of upper-level courses and a program that will support personal educational and career goals, the student must plan an individualized curriculum with representatives of the three disciplines and have their written approval for his or her degree program.

Specifics for each concentration:

Theatre Arts: A student concentrating in Theatre Arts must take Theatre Arts 210-211, *Introduction to Theatre* and 24 hours in Theatre Arts above the 100-level, plus six credits in Fine Arts and six credits in Music.

Fine Arts: A student concentrating in Fine Arts must take Fine Arts 201-202, *Introduction to the Arts* and 24 hours in Fine Arts above the 100-level, plus six hours of Theatre Arts and six hours of Music.

Music: A student concentrating in Music must take Music 113-114, *Elementary Theory of Music* and 24 hours of Music above the 100-level, plus six hours in Theatre Arts and six hours in Fine Arts. (Music 201-202: *Introduction to Music* is an

[Theatre Arts, Fine Arts, Music,
Speech, Creative Writing, Cinema]

introductory course for general students and cannot be counted in the Music concentration.)

Minor Programs:

Theatre Arts Minor

A minor in Theatre Arts consists of twenty-one hours, including 210, 211, 212, 213.

Fine Arts Minor

A minor program in Fine Arts requires the student to have six hours in Fine Arts 201, 201; six hours of studio courses; electives of six to nine hours in any combination of art history or studio art.

The purpose of the art history electives is to give the student an opportunity to study some periods of art expression in depth. The courses in studio art provide the student an opportunity to develop a personal, individualized form of visual communication.

The Department of Fine and Performing Arts reserves the right to select a piece of class work from any student taking a studio course for the Department collection to be used for exhibition and teaching purposes.

Music Minor

The minor program in music will consist of a minimum of twenty-two credits above the 100-level. The following courses are required: Music 213-214, *Advanced Theory of Music* (8 credits); Music 303-304, *History of Western Music* (6 credits); Music 200, *Mixed Chorus* (4 credits); Applied Music 231, 232 (Piano, Voice, Strings, Organ) (4 credits).

The student will be required to present a minor recital (half-hour) as the completion of Applied Music 232, or the highest level applied music he undertakes. Departmental approval of the recital program must be obtained in the semester immediately preceding the semester in which the recital is given.

Courses in Applied Music require an Applied Music fee of \$98 for a half hour (1 credit) lesson and \$196 for a one hour (2 credit) lesson in addition to the regular charge of \$23 per credit hour for in-state students and \$39 for out-of-state students.

Sample Program for Theatre Arts Major

Course	Hours
Freshman Year	
English 101-102	6
Math or Philosophy	4-6
Social Science or Foreign Language	6-8
Theatre Arts 210, 211, 212, 213	12
	28-32
Sophomore Year	
Humanities	6
Social Studies or Foreign Language	6-8
Theatre Arts 214, 318, 319, 313	12
Electives	6
	30-32
Junior Year	
Theatre Arts 323 + 9 hours in concentration	12
Lab Science	8
Electives	9
Physical Education	4
	33
Senior Year	
Theatre Arts electives	9-12
Other Electives	18-21
	27-33

Theatre Arts

210, 211. Introduction to the Theatre [3-3-0] [3-3-0]

Fall and Spring 1977-78; Fall and Spring 1978-79.

A survey of the history of the theatre in conjunction with a study of major plays, ranging from antiquity to the present. The study of plays includes analysis from a dramaturgical viewpoint and analysis of the historical, social and philosophic forces that shaped the plays.

212. Introduction to Scene Design and Technical Production [3-3-0]

Spring 1977-78; Spring 1978-79.

A historical survey of technical components of the stage and a practical study of contemporary practices, including set design development and execution; lighting design and execution; costume design; make-up and mask; scenic painting and carpentry; sound for the stage, properties and special effects; and stage management.

213. Beginning Acting [3-3-0]

Both semesters

Study of basic principles in acting.

214. Fundamentals of Voice and Diction [3-3-0]

Fall 1977-78; Spring 1978-79. Same as Speech 214.

Study of basic principles underlying the effective use of the voice and exploration of practical methods leading to acceptable standards in diction.

313. Intermediate Acting [3-3-0]

Both semesters

Characterization and improvisation.

318, 319. Scenography [3-3-0] [3-3-0]

Prerequisite: 212 or consent of instructor. Fall and Spring 1977-78.

Advanced practical application of principles studied previously in the design curriculum. Emphasis is placed on total production development: set design, lighting and sound, costume design and construction, make-up and mask, properties and special effects, model building. Concurrently, practice is given in creative drawing for the stage to better develop an eye for form and spatial movement and understanding of light and its effect on the actor, set, costumes and make-up.

322. Music Theatre [3-3-0]

Prerequisite: Consent of instructor. Summer 1978-79.

Study and practice of performance techniques in opera, musical comedy and revue. Emphasis is placed on the special problems of staging musical performance, book execution and effective presentation of musical numbers.

323, 324. Directing [3-3-0]

Prerequisite: 210, 211 or consent of instructor. Fall and Spring 1978-79.

Study of basic principles in directing and their practical application in scenes and one-act plays.

326. Creative Dramatics [3-3-0]

Summer 1977-78. Same as Education 326. Examination of special methods of con-

structing theatrical events for children. Emphasis is placed on development of the imagination and communication abilities of the child, both in the theatre and in the classroom.

325. Special Topics [Credits vary]

Prerequisite: Consent of the instructor. Studies to be determined according to special needs and interests.

413. Advanced Acting [3-3-0]

Prerequisite: Six hours of acting or consent of instructor. Both semesters.

Study and practice of advanced acting techniques. Emphasis is placed on ensemble performance.

414, 415. Theatre Practice: Styles of Acting, Directing and Design [3-3-0] [3-3-0]

Prerequisite: Consent of instructor. Fall 1977-78.

In-depth study of the major styles of the Western theatre. Each student approaches the class work in terms of his or her major interest (styles of acting, directing, design). If suitable, projects may be executed in connection with actual productions.

458. Playwriting [3-3-0]

Prerequisite: Consent of instructor. Offered on a tutorial basis.

Study of traditional and contemporary modes of dramaturgy and their translation into one-act or full-length plays.

495. Special Topics [Credits vary]

Prerequisite: Consent of the instructor. Studies to be determined according to special needs and interests.

499. Individual Projects [Credits will vary]

Prerequisite: Consent of instructor. Individual construction, performance or research projects under the guidance of a faculty member.

Fine Arts

201, 202. Introduction to the Arts [3-3-0] [3-3-0]

201 taught fall semester; 202 taught spring semester.

The development of architecture, sculpture, and painting from pre-historic times to the present day. The first semester concludes at 1492. The second semester begins at this date and continues to the present.

218. Basic Drawing and Design [3-2-4]

Taught both semesters.

A foundation course in the fundamentals of design and drawing techniques.

231. Fundamentals of Painting [3-0-6]

Prerequisite: Fine Arts 218 or consent of instructor. Taught both semesters.

A course in the problems of painting in various mediums.

241. Ceramics [3-0-6]

Prerequisite: Fine Arts 218 or consent of the instructor. Taught both semesters.

An introductory course in pottery with an emphasis on hand building.

251. Sculpture [3-0-6]

Prerequisite: Fine Arts 241 and consent of the instructor. Taught spring semester.

A basic course in the problems of three-dimensional design.

321. Life Drawing [3-0-6]

Prerequisite: Fine Arts 218 or consent of instructor. Taught spring semester.

An introduction to drawing the human figure with attention to design and anatomy.

323. Painting [3-0-6]

Prerequisite: Fine Arts 321. Taught both semesters.

A course in painting with particular emphasis on the student's development in design and competence in one medium.

325. Life Painting [3-0-6]

Prerequisite: Fine Arts 321 and consent of instructor. Taught spring semester.

A course in the problems of painting the human figure with attention to portraiture as well as the figure as a design element.

341. Advanced Ceramics [3-0-6]

Prerequisite: Fine Arts 241 and consent of the instructor. Taught both semesters.

The emphasis is on the individual student's

competence and mastery of wheel techniques, green ware, and biscuit decoration.

351. Advanced Sculpture [3-0-6]

Prerequisite: Fine Arts 251 and consent of instructor. Taught fall semester. The development of competence in one sculpture medium (e.g. clay or stone) and one end product (e.g. portraiture).

371. Modern Art [3-3-0]

Prerequisite: History 101, 102; Fine Arts 201, 202; or consent of instructor. Taught spring semester, 1978-79. A study of the development of modern art, reflecting the social, political, and economic revolutions of the late 18th, 19th centuries to the present. Attention is also given to changing aesthetic theories and art criticism.

372. Arts in the United States [3-3-0]

Prerequisite: History 201-202; Fine Arts 201-202; or consent of instructor. Taught spring semester, 1977-78. A study of the major and minor forms from colonial times to World War II as these forms reflect the varieties of the American experience.

373. Arts of Humanism [3-3-0]

Prerequisite: History 101-102; Fine Arts 201-202; or consent of instructor. Taught fall semester, 1977-78. A course in art history beginning with the early renaissance and following the development of art forms through the 17th century. Attention is given to the changing role of the artist in society and to the political, economic, and social changes in Europe as they are reflected in the arts.

374. Arts of the Non-Western World [3-3-0]

Prerequisite: Fine Arts 201, 202; History 101, 102; or consent of instructor. Taught fall semester, 1978-79. A survey of those art forms exclusive of the concepts of traditional western civilization. A study of primitive peoples' art forms as well as those of complex civilizations. The arts of India, China, Japan, Africa, Oceania, and pre-Columbian America will be considered both within the context of our concepts and their own.

401. Individual Problems in Painting [3-0-6]

Prerequisite: Fine Arts 323 and consent of instructor. Taught both semesters. Special individualized problems in painting.

402. Individual Problems in Art History

Prerequisite: Six hours upper-level art history and consent of instructor. Taught both semesters. Particular aspects of art history selected by the student within the limitations established by the instructor. Credits will vary.

499. Independent Study in Art History or Art Studio [Credits will vary]

Offered at the discretion of the Department and with the consent of the instructor. Prerequisite for Art History: Six hours upper-level history course. Topic to be selected by instructor and student. Prerequisite for Art Studio courses: Six hours of 300-level studio courses. The problems to be specialized according to student needs and instructor's judgement.

NOTE: Students are responsible for purchase of art supplies and hand tools used in studio courses.

Music

100. Mixed Chorus [1-0-3]

The study and performance of works by great composers of choral literature. Diction, phrasing, breath control, dynamic expression, and tone production are emphasized. No more than eight credits may be offered toward graduation.

201-202. Introduction to Music [3-3-0]

This course traces the development of the art of music through the various historical periods and familiarizes the student with the more important composers and their works.

113-114. Elementary Theory of Music [5-3-3] [5-3-3]

Prerequisite: Consent of instructor.

A review of the rudiments of music. Simple chords, seventh chords, non-harmonic tones, part writing, analysis of chords, analysis of chorales, sight reading, dictation, and keyboard harmony are studied.

213-214. Advanced Theory of Music [4-3-2] [4-3-2]

Prerequisite: Music 113-114, *Elementary Theory of Music*. Altered chords, chromatic harmony, formal and harmonic analysis, sight singing, harmonic dictation and keyboard harmony are studied.

303-304. History of Western Music [3-3-0] [3-3-0]

Survey of music styles, composers, and music literature from the ancient civilizations through the twentieth century.

395. Special Topics [3-3-0]

Prerequisite: Consent of the instructor. Courses dealing with specific genres, eras, or composers taught to fulfill particular needs of students within the music concentration.

495. Special Topics [3-3-0]

Prerequisite: Senior standing or consent of the instructor. Courses dealing with advanced topics in music theory and literature taught to fulfill particular needs of students within the music concentration and for public school teacher recertification.

499. Individual Projects [Credits will vary]

Prerequisite: Consent of the instructor. Individual research or performance projects completed under the guidance of a faculty member.

Applied Music

130. Piano, Organ, Strings, Woodwinds, Brass, Voice, Composition

Taught both semesters and summers. One thirty-minute lesson per week, one credit per semester. Individual instruction. Can be taken by beginners or more advanced students. Compositions studied deter-

mined by instructor according to the ability of the student. Students are allowed to repeat Applied Music 130 up to eight times.

131, 2. Piano, Organ, Strings, Woodwinds, Brass, Voice, Composition

Taught both semesters and summers. One hour lesson per week, two credits per semester. Audition required for new students. Audition required for new students. Individual instruction. Compositions studied determined by instructor according to the level of the student. Students will not be allowed to proceed to upper-level applied music until a specific level of proficiency is obtained. Proficiency requirements for the various instruments can be obtained from the Director of Music.

231-232, 331-332, 431-432. Piano, Organ, Strings, Woodwinds, Brass, Voice, Composition

Taught both semesters and summer. One hour lesson per week, two credits per semester. Audition required for new students. Students must have achieved specific minimum levels of proficiency as established by the music faculty. Proficiency requirements for the various instruments can be obtained from the Director of Music.

All students concentrating in music will be required to pass a piano proficiency test. Students specializing in applied music will be required to present a major recital (one hour) as the completion of Applied Music 432. Departmental approval of the recital program must be obtained in the semester immediately preceding the semester in which the recital is given.

Speech

201. Public Speaking [3-3-0]

Taught both semesters and summer. Study of verbal and nonverbal communication as it applies to the public speaker. Creation and delivery of original speeches of various types. Emphasis on extemporaneous speaking.

203. Oral Interpretation of Literature
[3-3-0]

Taught fall semester 1978

Increased appreciation of literature and responsiveness to its intellectual and emotional content through training and practice in communicating it to others. Voice and speech improvement through practical exercises and drill.

214. Fundamentals of Voice and Diction
[3-3-0]

Taught fall 1977-78; spring 1978-79. (Same as Theatre Arts 214)

Study of basic principles underlying the effective use of the voice and exploration of practical methods leading to acceptable standards in diction.

395. Special Topic: Persuasion. [3-3-0]

Taught spring semester 1978-79.

Prerequisite: Speech 201 or consent of instructor.

A course designed to help the student to understand the process of persuasion, to

practice persuasion effectively, and to analyze the persuasive discourse of others. Special attention is given to sales, advertising, and politics.

Cinema

Cinema 336. The Cinema Since 1945 [4-3-2]
Taught summer only, 1978

A study of the cinema as an art form and of its development since World War II. Films studied will vary from semester to semester and will be selected from the work of Welles, Hitchcock and Kubrick from America; Losey and Schlesinger from England; Ray and Kurosawa from Asia; Antonioni, Bergman, Fellini, Godard, Resnais and Truffaut from Europe.

Geography

Assistant Professor: Prow (Chairman)

Geography is one of the oldest sciences and is devoted to the investigation of Location, Site, and Place. It is not a tedious exercise in rote learning, but calls for evaluative and analytical approaches. As a synthesizing science, Geography is interdisciplinary, and investigates physical and human factors.

Available as a minor, Geography and Earth Sciences are of particular interest to those who seek an interdisciplinary education and those who are interested in the world in which we live. Geography also provides for teacher certification.

The Geography Department offers an earth science program with emphasis on geomorphology and cartography, balanced by culturally oriented courses and offerings in maritime subjects.

101. Maps and Charts [3-3-0]

Taught in spring semester

An elementary cartography course favoring a practical approach. In conjunction with Lab Section 103, the student has an opportunity to develop skills not only in map reading and photo interpretation, but also in designing and executing maps, charts, schematics, and visual aids.

Required for Geography minors. Recommended for teacher certification, earth science, geology, and engineering students.

103. Maps and Charts Laboratory [1-0-3]

An introduction to practical and experimental techniques of cartography and hydrography. Map elements, projections, photo interpretation techniques, and cartographic principles are stressed.

201. Physical Geography [3-3-0]

The investigation of spatial interactions and processes on planet earth. Structure and evolution of the earth, the distribution of lands and seas in past geologic ages, tectonic plate movements, and geomorpho-

logical aspects are studied. Climates, soils, and earth processes are investigated in terms of human activity. (Same as Geophysical Sciences 201)

Required for geography minors.

202. Oceans, Seas and Shores [3-3-0]

A marine science course taught from the vantage point of coastal location. Ocean basins, continental borderlands, ice regions, and coastal processes are studied with special emphasis on land-sea interactions and the effects of the sea upon climate, land, and man. May be substituted for 201.

252. Economic Geography [3-3-0]

The study of the nature, distribution, use, and conservation of living and non-living resources. Economic interdependence, energy problems, and the role of transportation are investigated in geographic perspective. Required for Geography minors. Recommended for teaching certifications.

351. Geography of Cities [3-3-0]

Prerequisite: Three hours of Geography or Geology, or six hours in Political Science. An analysis of urban settlements, their location and distribution, their geological foundations and cultural patterns. City functions and classifications, central place theories, and land use and planning concepts are investigated.

375. Geography of Virginia [3-3-0]

Prerequisite: Three hours in Geography, or consent of instructor. Taught fall semester. A regional analysis of the Commonwealth of Virginia as key state on the Eastern Seaboard. Continental Shelf, Chesapeake Bay, effects of sea level changes on the Tidewater region, coastal zones, landforms and physiographic regions, economic and cultural patterns, planning and development are investigated. Field trips involving fish and fall line, mud and mountains, scarps and spelunking are part of the course. Required for Geography minors. Recommended for teacher certification and as earth science elective.



395, 396. *Topics in Geography* [3-3-0]

Prerequisite: Six hours in Geography or geology, or consent of instructor.

Selected topics in economic or political subjects in 396 courses. Investigation of specialized subjects in 395 offerings. Example: Geography of Europe, or Political Geography would be 395. Paleogeography or Geomorphological Archaeology would be taught as 396.

450. *Maritime Geography* [3-3-0]

Prerequisite: Geo 202 (Geography or Geology), or consent of instructor.

The seas are examined as source of wealth, as means of transportation, and as seaward extensions of national interests. Special emphasis is placed on maritime activities and human occupancy of coastal areas.



Geophysical Sciences

Cones (Chairman), Al-Salam, Prow, Wise

The faculty of the Department of Geophysical Sciences, the members of which have their major duties in other departments, serves for the administrative pur-

poses of course and program development and student advising.

In addition to the courses offered by the department as listed below (cross-listed with other departments), it is planned to offer a two semester course in general geology.

201. *Physical Geography* [3-3-0]

Taught Spring semester. Same as Geography 201.

The investigation of the physical environment and interrelationships of planet earth. The student becomes acquainted with land forms, climates, soils, and earth processes.

302. *Oceanography - An Introduction to Marine Science* [3-3-0]

Prerequisite: Chemistry 121-122, 125-126 or consent of instructor. Taught Fall Semester. Same as Biology 302.

Physical and chemical properties of the hydrosphere; application of basic ecological principles to the marine environment; history of oceanography.

302a. *Oceanography - An Introduction to Marine Science Laboratory* [1-0-4]

Prerequisite: Concurrent or previous registration in Physical Sciences 302 (Biology 302). Taught Fall semester. Same as Biology 302a.

304. *Soils* [4-3-3]

Prerequisite: Chemistry 103-104, 105-106 or Chemistry 121-122, 125-126. Taught Spring semester. Same as Biology 304.

Character of soil as a natural system, emphasizing its physical, chemical and biological properties as they relate to agricultural, urban, and waste disposal uses.

322. *Exploration of the Universe: Astronomy* [2 or 3-3-0]

Prerequisite: Junior standing or consent of instructor. Taught Spring semester. Same as Physics 322.

A survey of the history and methods of astronomy, including the solar system, planetary motion, stellar evolution, theories of cosmology, and such recent developments as quasars, pulsars, and black holes. A 16 inch telescope, a radio telescope, and a planetarium are available.

Health Professions

Professors: Markusen (Chairman), Booker, Hammer

Associate Professor: Kernodle

Assistant Professors: Colonna, Royall, Simmons

Christopher Newport College is an active member of the Tidewater Area Health Education Consortium. Consequently, Christopher Newport College students may participate in all joint and cooperative health programs that develop in the Consortium.

As health related programs are developed at Christopher Newport College, they will be housed in the Department of Health Professions. During the planning stages, the Faculty Committee on Health Professions will serve as the faculty of this department for administrative purposes of program planning and student advising.

A cooperative program with Old Dominion University whereby registered nurses from diploma schools can work toward the B.S. degree in Nursing awarded by Old Dominion University by taking course work at Christopher Newport College is already in operation. For details of this program, contact Professor Ruth Simmons of the Biology Department (phone 599-7124) or the Admissions Office (phone 599-7015).

An interdisciplinary minor in Gerontology, with some courses to be offered in the 1977-78 academic year is currently being planned. For details, contact Professor Ruth Kernodle, Department of Sociology (phone 599-7114).

A number of the departments of the college offer health related courses. For listing of these courses, consult the course offerings of the various departments.

History

Associate Professors: Bostick, Morris, Parks (Chairman), Saunders

Assistant Professors: Mazzarella, Morgan

The Department of History offers the

Bachelor of Arts degree in history, a minor program, and general and specific history courses for all students interested in historical study for personal enrichment or for furtherance of their vocational needs. The study of history is recognized as an excellent background for work in teaching, public administration, business, journalism, law, and the military services. Students are taught historical analysis; factual and textual criticism; and the complexity of cultural, economic, and political forces present in human decision-making through analysis of varied historical eras and movements. Detailed study is offered in European, American, Latin American, and Asian history in addition to study of the contemporary world.

For a Bachelor of Arts degree in History, a minimum of twenty-four hours in history above the 200 level, including History 490 (Senior Seminar) is required. A maximum of forty-two hours in history above the 200 level may be applied toward the degree. A maximum of nine hours in History 396 (Topics), no more than six of which may be courses taught in conjunction with Colonial Williamsburg, may be offered toward completion of major requirements. History majors are encouraged to diversify their programs by taking advanced courses in American, European, and non-Western History.

For a minor in history, a minimum of twenty-one hours consisting of History 101, 102, 201, 202, and three courses of the student's choice at the 300 or 400 level, is required.

History majors desiring certification in history must take the courses required by the State of Virginia as outlined in the sample program for teacher certification, including three hours in mathematics; three hours in economics; and Education 401s (six hours), Education 403h (three hours), and Education 414 (three hours) offered as a twelve-hour block in the spring semester each year.

History majors desiring certification in history and social science must take the

courses required by the State of Virginia as outlined in the sample program for teacher certification, including three hours in mathematics, six hours in economics, twelve hours in political science, six hours in geography, and Education 401s (six hours), Education 403h (three hours), and Education 414 (three hours) offered as a twelve-hour block in the spring semester each year.

Sample Program for History Majors

Course	Hours
Freshman year	
English 101-102	6
Laboratory Science	8
History 101-102	6
Foreign Language	8
Physical Education	4
	32
Sophomore Year	
History 201-202	6
Humanities Electives	6
Social Science Electives	6
Foreign Language	6
Math or Philosophy	6
	30
Junior Year	
History Electives	12
Electives	21
	33
Senior Year	
History Electives	9
History 490 (Senior Seminar)	3
Electives	18
	30

Sample Program for History Majors with Teacher Certification

Course	Hours
Freshman Year	
English 101-102	6
Laboratory Science	8
History 101-102	6
Foreign Language	8
Physical Education (Activities Course)	4
	32
Sophomore Year	
History 201-202	6
Humanities Electives	6
Math or Philosophy	6
Social Science electives	6
Foreign Language	6

Physical Education 321 (Foundations of Health)	3
	33
Junior Year	
History Electives	12
Communications 201	3
Psychology 201	3
Psychology 307 (Developmental) or Psychology 309 (Adolescent)	3
Education 312 (Educational Psychology)	3
Education 341 (Cultural Foundations)	3
Electives	3
	33
Senior Year	
History electives	9
History 490 (Senior Seminar)	3
Education 303 (Instructional Materials) 1st semester	3
Education 4018 (Supervised Teach- ing in Secondary School) 2nd semester	3
Education 414 (Educational Measure- ments) 2nd semester	3
Elective	3
	30

European History

101. History of Western Civilization to 1715 [3-3-0]

Prerequisite: None. Taught in fall semester.

A survey of the history of culture of Western man. Beginning with the traditions of the ancient world, the course traces the major developments of Western Civilization to 1715.

102. History of Western Civilization, 1715 to the Present [3-3-0]

Prerequisite: None. Taught in spring semester.

A survey of the major political, social, cultural, and intellectual developments of Western civilization from 1715 to the present.

301, 302. Greek and Roman Civilization [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Same as Classical Studies 301, 302. Taught fall and spring semester, 1977-78. First semester begins with the origin and

nature of the great civilizations of the Near East and closes with the empire of Alexander the Great. Second semester begins with the early history of Italy and ends with the fall of the Roman Empire.

307, 308. Medieval History [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught fall and spring semester, 1977-78.

First semester deals with the decline of Rome, the Germanic invasions, Justinian, Islam, Charlemagne and the stabilizing of Europe. Second semester focuses on Medieval culture, the Feudal Kingdoms, clash of Empires and Papacy, the Hundred Years War, and the waning of the Middle Ages.

313. The Renaissance [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught fall semester, 1978-79.

A study of the history and civilization of the Renaissance in Italy and northern Europe. The course will consider the many facets of Renaissance life and activity.

314. The Reformation [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught spring semester, 1978.

A study of the background, history, and ideas of the Protestant Reformation and the Catholic Reformation through the early seventeenth century.

315, 316. Early Modern Europe, 1600-1815 [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught fall semester, 1978-79.

The first semester focuses upon the development of absolutism and constitutionalism, the scientific revolution, and the impact of political and scientific developments on social and cultural patterns of 17th and 18th century European society. Second semester focuses on the Enlightenment and on the era of the French Revolution and Napoleon.

317. Nineteenth Century Europe [3-3-0]

Prerequisite: History 101-102, junior stand-

ing, or consent of instructor. Taught spring semester, 1978-79.

A study of the Congress of Vienna of 1815, Nationalism, Industrialism, Marx, Darwin, the Revolutions of 1848 and the Restructuring of the European state system after the unification of Italy and Germany.

318. The Era of World War I [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught spring semester, 1978-79.

Europe in the age of Nationalistic Rivalry, Imperial Expansion, the rise of the working classes, the First World War, The Russian Revolution, and the Versailles Settlement.

319. Europe from 1919-1945 [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught fall semester, 1978-79.

Europe between the wars, establishment of communist Russia, the rise of fascism and nazism, the collapse of the Versailles Settlement, the Second World War.

395. Topics in European History [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor.

A thorough analysis of a particular phase, movement, or subject area of history with emphasis on its impact upon the larger historical scene. Topics and instructors vary each semester according to departmental assignment.

410, 411. Russian History [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught both semesters, 1977-78.

First semester begins with Kiev and proceeds through the medieval period, the Time of Troubles, the beginning of the Romanovs, and Westernization under Peter and Catherine to the reign of Alexander I. Second semester covers Russian history during the 19th and 20th centuries and includes the rise of radicalism, the Revolutions of 1905 and 1917, the nature of Russian communism, and Russia under the Soviet system.

412, 413. England Under the Tudors and Stuarts [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught fall and spring semesters, 1978-79. First semester begins with the establishment of the modern English state under the Yorkists and early Tudors and concludes with the Elizabethan Age. Second semester concentrates on the Stuart period through the Glorious Revolution.

415, 416. *History of Modern Britain, 1689 to the Present* [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing or consent of instructor. Taught both semesters, 1978-79.

A study of British history and civilization from the Glorious Revolution to the present. Second semester begins with the accession of Queen Victoria.

421, 422. *Intellectual History of Europe* [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing or consent of instructor. Taught both semesters, 1977-78.

An historical analysis of European political, social, religious, and scientific thought. The course focuses primarily on the interactions of ideas and the social reality from which they emerged.

American History

201. *American History* [3-3-0]

Prerequisite: Sophomore standing or consent of instructor. Taught both semesters. A survey of the historical development of the United States from early colonial times through the Civil War including social, cultural, economic, and political movements through these years of earlier growth.

310. *Discovery & Exploration of North America to 1625* [3-3-0]

Prerequisite: History 201, junior standing, or consent of instructor. Taught fall semester, 1977-78.

An analysis of the major voyages of exploration and expeditions of discovery in North America from 1000 A.D. to 1625. The course focuses on the growth of European knowledge of North America and concludes with the establishment of permanent Euro-

pean colonies in North America.

320. *Colonial America* [3-3-0]

Prerequisite: History 201, junior standing, or consent of instructor. Taught spring semester, 1977-78.

A study of the origins and development of the American colonies, some analysis of Puritanism, introduction of slavery, and provincial developments.

321. *The Revolution, Constitutional, and Federal Eras, 1763-1800* [3-3-0]

Prerequisite: History 201, junior standing, or consent of instructor. Taught fall semester, 1978-79.

A study of the backgrounds of the American Revolution, the Revolution itself, the Confederation, and an analysis of the new government as administered by the Federalists.

322. *The Early National Period, 1800-1840* [3-3-0]

Prerequisite: History 201, junior standing, or consent of instructor. Taught spring semester, 1978-79.

An analysis of the Jeffersonian and Jacksonian eras.

323. *Civil War and Reconstruction* [3-3-0]

Prerequisite: History 201-202, junior standing or consent of instructor. Taught fall semester, 1977-78.

An intensive study of slavery and expansion, social and intellectual developments of the era, the Civil War and Reconstruction.

324. *Industrial America, 1877-1919* [3-3-0]

Prerequisite: History 201-202, junior standing, or consent of instructor. Taught fall semester, 1977-78.

A study of the impact of industrialization, urbanization, and immigration on American society, the thrust of the U.S. beyond its border, and the political, intellectual, and social response to these forces.

325. *Recent America, 1919 to the Present* [3-3-0]

Prerequisite: History 201-202, junior standing, or consent of instructor. Taught spring semester, 1977-78.

The United States since World War I with emphasis on major political and social developments, and an analysis of the role of the United States as a world power.

340, 341. *Economic History of the United States* [3-3-0] [3-3-0]

Prerequisite: History 201-202, junior standing, or consent of instructor. Same as Economics 340, 341. Taught both semesters, 1977-78.

The study of America's economic growth and development from colonial times to the present. Includes the development of agriculture, manufacturing, trade and commerce, improved methods of transportation and communication, employer and employee organizations, governmental impact on the economy, and economic interdependence. Second semester begins with the late 19th century.

395. *Topics in American History* [3-3-0]

Prerequisite: History 201-202, junior standing or consent of instructor.

A thorough analysis of a particular phase, movement, or subject area of history with emphasis on its impact upon the larger historical scene. Topics and instructors vary each semester according to departmental assignment. A maximum of nine hours in History 395 may be offered toward completion of major requirements.

430, 431. *Diplomatic History of the United States* [3-3-0] [3-3-0]

Prerequisite: History 201-202, junior standing, or consent of instructor. Taught both semesters, 1977-78.

An examination of American relations with the rest of the world since independence. Second semester begins with the early 20th century and continues to the present.

434. *Urban History of the United States* [3-3-0]

Prerequisite: History 201-202, junior standing or consent of instructor. Taught in 1977-78.

A study of the political, social, and intellectual impact of the city upon American history from the seventeenth to the twentieth century.

441, 442. *American Maritime and Naval History* [3-3-0] [3-3-0]

Prerequisite: History 201-202, junior standing, or consent of instructor. Taught in 1978-79.

A survey of the maritime development of the United States and its relationship to the Western world from the founding of the colonies to the present time. Emphasis is on the growth of American merchant shipping and naval power and their relationship to American political, military, economic, and cultural history. First semester concludes with the Civil War. Second semester covers the modern period from the Civil War to the present.

Asian History

460, 461. *History of Asia* [3-3-0] [3-3-0]

Prerequisite: History 101-102, junior standing, or consent of instructor. Taught in fall and spring semesters.

First semester focuses on the role of Chinese civilization in Asia; second semester begins with the opening of Asia to Western influences in the nineteenth century and concludes with the modernization of Asia and the birth of Asian Communism.

Latin American History

330, 331. *History of Latin America* [3-3-0] [3-3-0]

Prerequisite: Sophomore standing or consent of the instructor. Taught in fall and spring semesters.

The first semester considers the relation of social and cultural achievements of Latin America within the framework of Western Civilization as well as pre-Columbian cultures and colonization period. The second semester examines independence movements and Republican institutions of post-revolutionary period to the present.

Contemporary History

343. *The Contemporary World* [3-3-0]

Prerequisite: History 101-102, or History 201-202, or consent of instructor.

An historical analysis of world developments since World War II, with particular

emphasis on the development of ideological and regional tensions. The goal of the course is to place the major concerns of the present in their proper historical perspective.

Seminar

490. Senior Seminar [3-3-0]

Prerequisite: Six credits in history above the 200 level. Required of all history majors. Taught both semesters.

A seminar dealing with selected problems in history and an examination of historiography, methodology, and philosophy of history. The focus, form, and content of each seminar will be determined by the instructor. The nature of the seminar will be announced well in advance after consideration of student interest and staff availability.



Humanities

Interdisciplinary courses involving two or more departments from among the following: Classical Studies, English, Fine and Performing Arts, History, Modern Foreign Languages and Literatures, and Philosophy, are taught under the Humanities title.

The Humanities Department offers neither a major nor a minor program. Students seeking a list of those courses which satisfy the Humanities distribution requirement are referred to the section describing requirements for the degree in question.

100, 101. Courses by Media

The College, in cooperation with the *Daily Press* and WHRO-TV, sponsors courses whose substances are presented, in part, through the media. These courses usually combine the major features of a home study program, elaborately developed study guides to assist the student in dealing with the course's reading and viewing materials, and a lecture-discussion class study program; only the number of classes is reduced. In the past, "Courses by Newspaper" has explored the following subjects: The Year 2000; The American Dream; American Issues, A Bicentennial Exploration; Oceans: Our Continuing Frontier; and Moral Choices in the Contemporary World. "Courses by Television" series has included The Adams Chronicles; Roots; Black American History 1750-1870; and Classic Theatre: The Humanities in Drama. These courses have been listed as Humanities 100 and 101, except when a department wishes to sponsor the course as a means of broadening its offerings to its majors. All of the above courses were developed through grants from the National Endowment for the Humanities. The subject of each new course is announced in the Registration News.

300. The Bible as Literature [3-3-0]

Prerequisite: At least one course in the English 201-208 sequence. Same as English 300.

A literary study of the Old and the New Testament with emphasis upon artistic and humanistic merits of these collections.

395. Topics [3-3-0]

Prerequisite: Completion of English 101-102 or the equivalent and either the Humanities distribution requirement or six hours of history. Taught at the discretion of the departments listed in the introductory paragraph of this section.

A team-taught course on topics relating to two or more disciplines from among those departments.



Management and Marketing

Professor: A. King

Associate Professor: Boyd, Coker (Chairman)

Assistant Professors: Doleac, Ferry, Tsao, Vazzana

Instructor: Castleberry

The Department of Management and Marketing, a member of the American Assembly of Collegiate Schools of Business, offers the Bachelor of Science Degree with concentrations in three specified areas: management, marketing, and real estate.

The concentration in management provides an overview of management theory and practice as it relates to all of the specific business functions, e.g., production, finance, accounting, marketing, and purchasing. The curriculum assumes a degree of universality and transferability with respect to management skills. The management concentration offers an exceptional variety of courses to prepare the student for all types of managerial positions and perspectives. For instance, a student interested in a more general approach to this field might select as his or her management electives such courses as Personnel Management, Human Relations in Organizations, Industrial Psychology, Economics of Labor and Collective Bargaining and a Topics course such as Case Studies and Decision-Making Simulation in Organizations. On the other hand, a student who desires more mathematical or quantitative managerial training might elect as management electives a package of such courses as Managerial Economics, Business Conditions and Forecasting, Managerial Accounting, and Production Management.

The marketing concentration involves the planning of business activity from the completion of production to the final consumer. This includes such interrelated activities as product planning, advertising strategy, distribution and logistics management, pricing policy, and sales promotion.

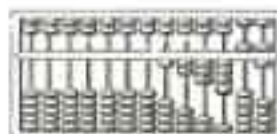
Salesmanship and merchandising techniques, store operations, and buying procedures are also included.

The Department of Management and Marketing is administratively directing a developing concentration in real estate. This concentration will prepare students for careers in real estate. A student who elects this concentration will take all of the courses required by the State of Virginia to become eligible to sit for the Virginia Real Estate Brokers' Examination.

Management (Eighteen credits required)

The following courses are required: Business 412, *Personnel Management*; Accounting 401, *Taxation*; Business 400, *Organization Theory*. Select nine additional hours from any of the following courses: Business 325, *Small Business Administration*; Business 331, *Statistical Methods in Business and Economics*; Accounting 410, *Managerial Accounting*; Business 414, *Case Studies in Decision Making*; Economics 420, *Business Conditions and Forecasting*; Business 431, *Production and Management*; Business 450, *Marketing Management*; Economics 451, *Economics of Labor and Collective Bargaining*; Economics 490, *Managerial Economics*; Business 495, *Topics in Business*; Psychology 313*, *Human Relations in Organization*; and Psychology 303*, *Industrial Psychology*.

* From Psychology 303 and Psychology 313, only one course may be elected. Either Psychology 303 or Psychology 313 may count toward the forty-five hours required in business if this concentration is elected.



Selected Course Outline for Management Concentration

Course	Hours
Junior Year	
Business 311, 323	6
Economics 301	3
Math 125	3
Management Concentration	6
Non-Business Electives	15
	33
Senior Year	
Business 408	3
Non-Business Electives	19*
Management Concentration	12

* Upon waiver by the Registrar, the student may take up to an additional eighteen hours in business by declaring the introductory business courses as general electives. In electing the management concentration, the student must declare one (three-hour) introductory course as an elective.

Marketing (Eighteen credits required)

The following courses are required: Business 300, *Salesmanship*; Business 450, *Marketing Management*; Business 452, *Marketing Research*, and Business 454, *Consumer Behavior*. Select six additional hours from any of the following courses: Business 302, *Personnel Techniques in Distribution*; Business 304, *Directed Occupational Training*; Business 305, *Product Knowledge*; Business 331, *Statistical Methods in Business and Economics*; Business 336, *Retail Store Organization and Operation*; Business 415, *Traffic Management*; Business 416, *Transportation Regulation and Law*; Business 453, *Marketing Promotion*; and Business 495, *Topics*.

Suggested Course Outline for Marketing Concentration

Course	Hours
Junior Year	
Business 311, 323	6
Economics 301	3
Math 125	3
Marketing Concentration	6
Non-Business Electives	15
	33

Senior Year

Business 408	3
Non-Business Electives	19*
Marketing Concentration	12
	34

* Upon waiver by the Registrar, the student may take up to an additional eighteen hours in business by declaring introductory business courses as general electives. In electing the marketing concentration, the student must declare one three-hour introductory course as an elective.

Real Estate

(Twelve credits required)

The required course is Business 322, *Principles of Real Estate*. Nine credits are required from the following courses: Business 470, *Real Estate Law*; Business 471, *Real Estate Appraisal*; Business 472, *Real Estate Brokerage*; Business 473, *Real Estate Finance*.

Suggested Course Outline for Real Estate Concentration

Course	Hours
Junior Year	
Business 311, 323	6
Economics 301	3
Math 125	3
Business 322	3
Non-Business Electives	18
	33
Senior Year	
Business 408	3
Real Estate Concentration	9
Non-Business Electives	19*
	31

* Upon waiver by the Registrar, the student may take up to an additional eighteen hours in Business by declaring introductory business courses as general electives.

Business 102. Introduction to Business [3-3-0]

Taught both semesters.

This course explores and analyzes the broad area of business administration from the manager's perspective. Included is a review of decision making, business resources, and the current business environment. Not open to classified business majors.

Business 108. Mathematics Business Finance [3-3-0]

Prerequisite: Mathematics 110. Taught both semesters.

Emphasizes such practical business problems as simple interest and discounts, averaging methods, inventory evaluation, compound interest, annuities, and perpetuities.

Business 300. Salesmanship. [3-3-0]

Taught both semesters.

A study of effective selling techniques emphasizing planning a sale, qualifying the customer, the importance of product knowledge, handling objections, multiple closings, effective use of buying signals, suggestive selling and prospecting. The student is required to give a number of sales demonstrations in class in order to show ability to conduct a sales interview.

Business 302. Personnel Techniques in Distribution. [3-3-0]

Taught once a year.

A study of personnel techniques used in supervisory and middle management, training, and interviewing, employee motivation, and a basic understanding of the personnel management function. Classroom instruction is related to the student's job experience.

Business 304. Directed Occupational Training. [3-3-0]

Taught once a year.

A minimum of two hundred and twenty-five hours occupational training is required.

The directed occupational training is conducted in selected retail, wholesale, or service businesses. Written assignments related to the student's occupation objectives are included. Not open to junior or senior students. Two credits each semester.

Business 305. Product Knowledge. [3-3-0]

Taught once a year.

A study of materials used, construction, core, and government regulations of such merchandise as textiles, chinaware, silverware, leather, jewelry, furniture, and other types of home furnishings. Values and quality standards for the customer are stressed.

Business 311. Principles of Marketing
[3-3-0]

Taught both semesters.
Study of the activities which direct the flow of goods and services from producer to consumers in modern economic systems. Emphasis is placed on developing the student's ability to analyze and evaluate marketing problems and policies.

Business 315. Principles of Transportation
[3-3-0]

Prerequisite: Business 311.
This course is designed to give the student an overview of the transportation field to include: transportation development; freight rate differential; transportation and the industrial pattern; valuation and rate making.

Business 322. Principles of Real Estate
[3-3-0]

Taught both semesters.
A survey of the role and importance of real estate in the economy; legalities, financing, investment, and appraisal. Involves problems of obtaining, owning, and transferring real estate.

Business 324. Principles of Management
[3-3-0]

Taught both semesters.
The fundamentals of management underlying the areas of organization and operation of business enterprises. Emphasis will be placed on such basic functions of management as planning, organizing, directing, staffing, and controlling business activities.

Business 325. Small Business Management
[3-3-0]

Prerequisite: Junior or Senior standing or consent of instructor.

This course is designed to give the student or student-businessman specific information concerning all aspects of small business. Major areas of study will be marketing, financing, recordkeeping for small businesses.

Business 331. Statistical Methods in Business and Economics [3-3-0]

Prerequisite: Mathematics 125
Emphasis is placed on applications of statistical techniques to practical business and economic problems. Topics include classical hypothesis testing, non-parametric tests, one-way analysis of variance, time series analysis, and linear regression and correlation analysis.

Business 336. Retail Store Organization and Operation [3-3-0]

Taught once a year.
The importance, problems, and requirements of retail stores are explored; the financing, organizing, location selection, building, layout, pricing, promotion, credit, control, and recordkeeping. Students work in all stages in the planning and operation of a retail store.

Business 337. Retail Sales Promotion
[3-3-0]

Taught once a year.
The scope and activities of sales promotion in retail stores with emphasis on coordination of advertising, display, special events, and publicity; external and internal methods of promoting business, budgeting, planning, and implementing the plan.

Business 338. Buying Procedures and Problems [3-3-0]

Taught once a year.
A study of problems involving initial markup, maintained markups, retail method of inventory, turnover, profit, stock to sales ratios and their application to the buyers job. Dollar and unit planning, unit control, model stocks, merchandise selection, pricing, and market procedures are emphasized and practiced with projects.

Business 361. Legal Environment of Business [3-3-0]

Prerequisite: Accounting 201-202, Economics 201-202, Junior or Senior standing.
Taught both semesters.

A study of legal, economic and political aspects of Government regulations of business. Emphasis is placed on the powers of the Federal and State Governments under their Constitutions; the Anti-Trust laws; regulatory agencies and their regulations; and administrative rule-making by Governmental agencies and how they affect decision-making and the operations of businesses.

Business 395. Elementary Topics in Retailing [3-3-0]

Presentation and discussion of recent trends in current problems of the retail industry. The seminar topics will reflect student interest.

Business 400. Organization Theory [3-3-0]

Prerequisite: Business 324
A detailed investigation into contemporary organization theory and problems. The determinants of organization design, the structural and process components of an organization, determinants of organization performance, and interrelationships between organization context, structure, process, and ends. Alternative theories and models of organizations will be compared and contrasted.

Business 408. Quantitative Analysis [3-3-0]

Prerequisite: Mathematics 110, 125; Accounting 201-202; Business 324. Taught both semesters.
An analysis of the quantitative operations, research, and management science approach to decision theory and the use of information systems by business management. Business simulation models and computer information systems will be considered.

Business 412. Personnel Management [3-3-0]

Prerequisite: Business 324. Taught both semesters.
A study of the principles and problems involved in personnel administration. Topics include job analysis, recruiting, and selection and training of personnel. The course will also include a discussion of collective bargaining and an introduction to wage and salary administration.

Business 414. Case Studies and Decision-Making Simulations in Organizations [3-3-0]

Prerequisite: Junior or Senior standing.
Students will analyze cases describing complex problems in human and group interactions in organizations. Students will interact for decision-making in two computer simulated games and sim-soc (a simulated society). Students will receive reactions on the effects of their decisions. The only grades given will be pass/fail.

Business 415. Traffic Management [Transportation]: Practices and Procedures [3-3-0]

Prerequisites: Business 315, 324, Math 220, Computer Science 220.
A study of the management function of a traffic department in the movement and routing of raw material or finished goods in intrastate or interstate commerce; application of freight rates, rules and regulations of tariffs to specific commodity groups; preparation of transportation documents; auditing of freight charges.

Business 416. Transportation Regulation and Law [3-3-0]

Prerequisite: Business 415.
A study of transportation regulations and law including the Interstate Commerce Act; nature of interstate commerce; franchises, combinations of carriers; finance rates and service; procedures, loss and damage and related statutes.

Business 418. Business Policy and Strategy [3-3-0]

Prerequisite: Accounting 201-202, Business 324, 311, and 323. Taught both

semesters. Senior standing.
Case analysis of the principles and techniques of formulating management policies. Utilizes analytical techniques in solving problems in management, finance, marketing, production, personnel, and accounting.

Business 431. Production Management
[3-3-0]

Prerequisite: Math 220, Accounting 201-202, Business 324. Taught fall semester.
An analysis of production, with concentration on the method, design, and operation of production systems.

Business 450. Marketing Management.
[3-3-0]

Prerequisites: Accounting 201-202, Business 311, Math 125.

Taught both semesters.

An intensive analysis of major marketing decisions facing the firm, such as level mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, buyer behavior, product policy, channel management, physical distribution, promoting and pricing. Competitive, political, legal, and social factors that may affect such areas are discussed. Cases, models, and problems are used heavily.

Business 452. Market Research [3-3-0]

Prerequisite: Accounting 201-202, Business 311, Math 125. Taught both semesters.

The application of analytical tools in the investigation of marketing problems. Emphasis on the development of sound policies in the systematic selection, gathering, and interpretation of marketing information.

Business 453. Marketing Promotion [3-3-0]

Prerequisite: Accounting 201-202 and Business 311. Taught once a year.

A study of sales management, advertising, and sales promotion with emphasis on the efficient blending of these functions.

Business 454. Consumer Behavior [3-3-0]

Prerequisite: Math 125, Business 311, Accounting 201-202. Taught once a year.
A study of the motivation and behavior of the consumer in the marketplace. The course draws on such disciplines in the behavioral sciences as psychology, sociology, and anthropology and provides students with insight into the dynamics of the consumer's way of thinking.

Business 470. Real Estate Law

Prerequisite: Business 322 or consent of instructor. Taught once a year.

A detailed and comprehensive survey of state and local laws which pertain to real estate: the laws of contracts, deeds, mortgages, leases, liens, and property taxes.

Business 471. Real Estate Appraisal [3-3-0]

Prerequisite: Business 322 or consent of instructor. Taught once a year.

A detailed and comprehensive survey of specific principles and techniques of appraising the value of residential and commercial property. Intrinsic structural and engineering values are viewed as well as market considerations.

Business 472. Real Estate Brokerage
[3-3-0]

Prerequisite: Business 322 or consent of instructor. Taught once a year.

A survey of principles and techniques involved in the ownership or managership of a real estate agency. Involves the issues of agent and agency, employment contracts, title of contracts, and commissions.

Business 473. Real Estate Finance [3-3-0]

Prerequisite: Business 322 or consent of instructor. Taught once a year.

A survey of the principles and techniques of financing residential and commercial property. Involves bank and savings and loan regulations, veterans administration regulations, interest rates, and computation of installment payments.

Business 495. Topics in Business [3-3-0]

Topical seminars or experiment of courses in business in a variety of areas: comparative systems, organizational analysis, case work in human relations in organizations, and financial analysis possibilities.

Business 499. Independent Study or Research

Junior or Senior status and consent of instructor.

An opportunity for independent study or research with guidance of faculty adviser. From one to three credits.



Mathematics

Associate Professors: Avioli (Chairman), Bartelt, Collins
 Assistant Professors: Bock Persky
 Instructors Pao, Weber

The Mathematics Department offers a variety of courses for those who wish to develop general or specific skills in mathematics, to satisfy the core distribution requirements, to study mathematics for esthetic reasons, or who wish to major or minor in Mathematics. With the cooperation of the Basic Studies Department, the Mathematics Department has established five different levels of courses for entering students. Consequently an entering student is advised to take the placement test in the Counseling Center before deciding which course to take; students are encouraged to consult with the Department when they are unable to take the placement test. The Department also encourages students who have had more advanced mathematics (either in high school or in some other college) to consult with the Department so that a suitable program may be planned.

Requirements for a major

A Mathematics major must satisfactorily complete Mathematics 250, 260, 360, and 370; one 400 level course; and at least nine additional credits in courses above the 200-level in the department. Moreover, a Mathematics major must follow one of three plans: 1) three 300- or 400-level courses in mathematics in addition to the basic 24 credits stated above; 2) a collegiate Professional Certificate in secondary teaching of mathematics; or 3) three 300- or 400-level courses in another discipline chosen by the student in consultation with his or her advisor. Acceptable disciplines are Physics, Computer Science, Chemistry, or Biology. All other disciplines must be approved in advance by the Department.

Mathematics with a concentration in Computer Science

This program is for mathematics majors who have a strong interest in both mathematics and computer science. The requirements for the concentration are:

1. Mathematics 250, 260, 360, 370, 380, 390, and 470. In addition, a student must select one of 400 or 495. Topics in Numerical analysis and one other course on the 300-400 level.

2. Computer Science 310, 330, and 360. In addition, a student in consultation with the student's advisor, must take 15 more credits in computer science, at least 9 of which are at the 300-400 level.

Mathematics with a concentration in Physics

This program emphasizes practical scientific, mathematical, and engineering research. The requirements are:

Mathematics 250, 260, 320, 360, and 420. In addition, the student must choose at least nine credits of 300-400 level mathematics courses. These courses are recommended: 300, 380, 440, and 495. Topics in Numerical Analysis.

2. Physics 201-202, 301, 302 or 351, & nine additional hours chosen from the following list of courses in consultation with the student's advisor: Physics 299, 302, 304, 351, 395, Fluid Dynamics. (3 credits), 395. Introduction to Electrical Engineering. (3 credits), 395. Material Science. (3 credits), 395. Thermodynamics. (3 credits), 402, 495. Solid State Physics. (3 credits), 495. Continuum Mechanics II. (3 credits), 499. Research Project. (at least 3 credits).

All mathematics majors must satisfy the general requirements for graduation and the distribution requirements for the Bachelor of Arts and Bachelor of Science Degrees. A major desiring a Bachelor of Science Degree must take Physics 201-202

as a partial fulfillment of the natural science distribution requirement.

A minor concentration in mathematics requires satisfactory completion of Mathematics 250, 260, and 320, and at least six additional credits in courses above the 200-level in this department.

Because of the complexity of planning a long-term program for those who intend to major in mathematics (and especially for those who seek a Collegiate Professional Certificate in the secondary teaching of mathematics), it is strongly urged that any student with possible interests in a major or minor concentration in mathematics consult with the Mathematics Department before registering for any courses. This applies to both classified and unclassified students in any year.

The Mathematics Department strongly recommends that any prospective mathematics major take Physics 201-202 in order to satisfy the Natural Science Division distribution requirement or an elective. Since calculus is a prerequisite for Physics 201-202, it may be advisable to take Physics 201-202 in the sophomore year. The Department also recommends that a prospective major take Computer Science 220.

Sample Program for Mathematics Majors

Course	Hours
Freshman Year	
English 101-102	6
Math 130, 140, or 240	6-7
Computer Science 220	2
Distribution	18-19
	34
Sophomore Year	
Physics 201-202	8
Math 240, 250, 260, or 300	6-12
Distribution	10-16
Second Area	0-8
	30
Junior Year	
Math 320, 360, 370, and others	9-15
Second Area	6-9

Electives	6-15
	30
Senior Year	
Math	6-12
Second Area	6-15
Electives	3-18
	30

110. College Algebra [3-3-0]

Prerequisite: One year of high school algebra or acceptable score on placement test. Taught both semesters. Topics include properties of real numbers, polynomials, rational expressions, exponents, equations and inequalities, functions, logarithms, matrices, and systems of equations.

120. Finite Mathematics [3-3-0]

Prerequisite: One year of high school algebra, acceptable score on placement test, or Math 110. Taught both semesters. Suitable for those students already having a knowledge of elementary algebra as described under Math 110. Topics include logic, sets, trees, combinatorics, permutations, elementary probability, finite sample spaces, Markov chains, matrices and matrix games, linear programming, graphs, or digraphs or other topics in discrete mathematics.

125. Elementary Statistics [3-3-0]

Prerequisite: One semester of college mathematics. Taught both semesters. A general survey of descriptive and inferential statistics. Descriptive analysis of uni- and bivariate data, probability, standard distributions, sampling, hypothesis testing, estimation, linear regression, and non-parametric testing.

130. Elementary Functions and Analytic Geometry [3-3-0]

Prerequisite: Two and a half years of high school mathematics, acceptable score on placement test, or Math 110. Taught both semesters.

Designed for the student planning to take calculus but who has little or no knowledge of analytic geometry, trigonometry, and functions. Real numbers, inequalities,

analytic geometry, linear and quadratic functions, polynomials and rational functions, trigonometric identities, and exponential and logarithmic functions.

140. *Calculus and Analytic Geometry*

[4-4-0]

Prerequisite: Three and a half years of high school mathematics, acceptable score on placement test, or Math 130. Taught both semesters.

An introduction to the calculus of elementary functions. Analytic geometry, functions, continuity, derivatives, methods of differentiation, the Mean Value Theorem, curve sketching, applications of the derivative, the definite integral, the Fundamental Theorems of Calculus, indefinite integrals, logarithmic and exponential functions, and applications of the integral.

240. *Intermediate Calculus* [3-3-0]

Prerequisite: Math 140 or acceptable score on the placement test. Taught both semesters.

Techniques of integration, L'Hospital's Rule, approximations, Taylor's Theorem, sequences and limits, series of numbers and functions, power series, and Taylor series.

250. *Multivariable Calculus* [3-3-0]

Prerequisite: Math 240 or consent of the instructor or chairman. Taught both semesters.

An introduction to the calculus of real-valued functions of more than one variable. The geometry of 3-space, partial and directional derivatives, multiple and iterated integrals, and applications.

260. *Linear Algebra* [3-3-0]

Prerequisite: Math 140. Taught both semesters.

Systems of linear equations, matrix operations, vectors and vector spaces, independence, bases and dimension, coordinates, linear transformations and matrices, determinants, eigenvalues and vectors, and inner products.

295. *Elementary Topics* [1-3, 0-3, 0-3]

Prerequisite: Announced at the appropriate time. Taught when appropriate. This course is a mechanism for constructing

non-permanent courses for specific purposes during or between semesters. Courses can range from one credit laboratories in, say, solving equations with Cramer's rule to three credit courses on topics of immediate importance.

300. *Mathematical Statistics* [3-3-0]

Prerequisite: Math 240. Taught spring semester.

Elementary probability, random variables, probability distributions, binomial, normal, and Poisson distributions, estimation, hypothesis testing, confidence intervals, and regression analysis.

320. *Ordinary Differential Equations*

[3-3-0]

Prerequisite: Math 240 and 250. Taught both semesters.

An exposition of the theory and methods of solution of elementary differential equations along with applications. Topics include first order equations, n -th order linear equations with constant coefficients, series solutions of second order linear equations, Laplace transforms, systems of first order equations, and an introduction to two point boundary value problems.

360. *Advanced Calculus* [3-3-0]

Prerequisite: Math 250 and 260. Taught fall semester.

A one-semester course covering various topics in advanced calculus and elementary analysis. Topics may include the definition of the real numbers, topology of the real numbers, functions of bounded variation, Riemann-Stieltjes integration, sequences of functions, series of functions, Taylor and Fourier series, or uniform convergence.

370. *Abstract Algebra* [3-3-0]

Prerequisite: Math 250 and 260. Taught spring semester.

An introduction to algebraic structures, elementary number theory, groups, rings, homomorphism theorems, quotient structures, polynomial rings, and fields.

380. *Numerical Analysis* [3-3-0]

Prerequisite: Math 240 and 260; Computer Science 250 or equivalent. Taught fall semester 1977-78.

A survey of numerical methods of scientific and engineering problems. The course will include such topics as: roots of linear and nonlinear systems of equations, integration, differentiation, interpolation and approximation, ordinary differential equations and eigenvalue problems. Consideration will be given to theoretical concepts and to efficient computational procedures.

390. *Mathematical Methods of Operations*

Research, Deterministic Models [3-3-0]

Prerequisites: Math 250 and 260. Taught fall semester 1978-79.

Mathematical theory and techniques including: convex sets and functions; linear programming including the simplex method; duality theory; transportation and assignment problems; and dynamic programming.

395. *Elementary Topics* [3-3-0]

Prerequisite: Consent of the instructor or the chairman of the department unless otherwise listed. Taught when appropriate.

The exact course(s) to be offered in any one semester and a description of the course(s) will be found in the pre-registration schedule for that semester.

400. *Mathematical Methods of Operations*

Research, Stochastic Models [3-3-0]

Prerequisite: Math 390 and 360 or permission of the instructor. Taught spring semester 1978-79.

Mathematical theory and techniques such as: elements of probability theory; queueing theory; inventory control; decision analysis; and Markov chains.

420. *Methods of Applied Mathematics -*

Continuous Models [3-3-0]

Prerequisite: Math 320 and 360. Mathematical modeling and solution of some problems that arise in the natural sciences. Areas may include Fourier series, advanced ordinary differential equations, partial differential equations, special functions, Laplace transforms, calculus of variations, and control theory.

440. *Advanced Vector Calculus* [3-3-0]

Prerequisite: Math 360 or consent of

instructor or chairman. Taught fall semester 1977-78.

Differential geometry of curves, vector differential calculus, the implicit and inverse function theorems, vector integral calculus in two and three dimensions, Green's, Stokes', and Gauss' Theorems, and line and surface integrals.

470. *Applied Modern Algebra* [3-3-0]

Prerequisite: Math 370, Computer Science 250 or equivalent. Taught fall 1978.

An introduction to applications of algebra and discrete mathematics to machine and systems theory. Set and graph theory, semigroups, finite state machines, boolean operations, turing machines, machine homomorphisms and decompositions, circuit optimization, machine products and other topics in discrete mathematics.

495. *Advanced Topics* [3-3-0]

Prerequisite: Consent of the instructor or the chairman of the department, unless otherwise listed. Taught when appropriate.

This course will usually consist of one or more of these topics: advanced differential equations; advanced numerical methods, modeling, complex variables, geometry, optimization, real analysis, or topology. The exact course(s) to be offered in any one semester and a description of the course will be found in the pre-registration schedule for that semester.

Military Science [Army]

General

A unit of the Reserve Officers' Training Corps was established at the College of William and Mary on July 1, 1947, with an assigned mission to qualify students for positions of leadership and management in the Armed Forces. By participating in the ROTC Program, a student can earn a commission as a 2nd Lieutenant in the Regular Army or the United States Army Reserve, while pursuing his or her degree. A general military science curriculum is offered which enables a cadet to qualify for assignment into any one of the 13 branches of the Army.

Available by arrangement with the Department of Military Science of the

College of William and Mary, certain courses are offered at Christopher Newport College while others are offered only on the Williamsburg campus.

MS 101, 102, 103 and 104 are taught on campus at Christopher Newport College. MS 301, 302, 401, and 402 are available only at the College of William and Mary campus.

What ROTC Offers

1. A minimum of \$2,000 in scholarship money to each cadet during his junior and senior years.
2. A guaranteed job with a starting salary in excess of \$10,000 per year.
3. A commission as a 2nd Lieutenant in the United States Army.
4. Extensive leadership and management courses which are applicable to both civilian industry and the military service.
5. An opportunity to participate in such activities as Orienteering, Mountaineering, Survival Training and Marksmanship.

Scholarships

Four-, three-, two-, and one-year Army ROTC scholarships are available to outstanding high school seniors and applied for in the junior or senior year. Three-, two-, and one-year scholarships are available to college freshmen, sophomores and juniors respectively who are already participating in the ROTC Program. The scholarship will pay for the following:

1. Tuition
2. Books
3. Lab Fees
4. \$100.00 per month (tax free)

In addition, all non-scholarship cadets enrolled in the Advanced ROTC Program receive scholarship monies of \$100 per month (tax free) during the junior and senior years with no additional obligation.

Books and Uniforms

All books, uniforms and materials needed for participation in the ROTC programs are furnished by the Military Science Department at no cost to the student.

Requirements for Commissioning

4-year program:

1. Completion of all Military Science courses listed in this catalog.
2. Between the junior and senior years a

cadet must attend a 6-week ROTC Advanced Camp.

2-year program:

1. Between the sophomore and junior years a cadet must attend ROTC Basic Camp for 6 weeks.
2. During the junior and senior years a cadet must take MS 301, 302, 401, and 402.
3. Between the junior and senior years a cadet must attend a 6-week ROTC Advanced Camp.

Requirements for Enrollment

Any full-time college student who is a citizen of the United States, physically qualified, and not already holding a commission in any of the Armed Forces may, when he matriculates, enroll in Basic Military Science. Those meeting the above qualifications, but who have had prior military experience, whether in the Armed Forces or in another college, or in junior ROTC in high school, may, commensurate with the degree of such experience, enroll in Military Science at a higher level.

101. Military Science I & II [2-2-0]

Taught fall semester.

This semester will consist of two basic phases. Phase one will be studies on the topic of National Security Policy. The course presents the theory of the formation and execution of American National Security Policy and will include an appraisal of such problems as the use of nuclear weapons, ideological and psychological conflict, and the role of the military in national policy. Emphasis will be placed on the major ideological, technological and political factors which have shaped existing policy and which will determine future trends in policy. Phase two of the instruction will be taught outdoors and will teach students orienteering skills. During the class, cadets will learn basic map reading, use of the compass and techniques of land navigation. They will combine these skills in timed exercises designed to locate designated markers in wooded terrain.

102. Military Science I & II [2-2-0]

Taught spring semester.

This semester will consist of two basic phases. Phase one will be studies on the

basic theory underlying modern revolutionary warfare using case histories from Cuba, China and the Philippines. Phase two of the instruction will deal with the subject of patrolling. In this phase cadets will receive instruction on recon and combat patrols. They will learn to plan, organize and conduct patrols by participating in actual patrols.

103. Military Science I & II [2-2-0]

Taught fall Semester.

This semester will consist of two basic phases. Phase one will be studies on the topic of basic leadership and management. The scope of the instruction will include an in-depth study of leadership traits and principles, an introduction to management, theory, and a detailed study of the basic management functions as they are applied to managing organizations within the framework of the new volunteer Army concept. Phase two of the instruction will be practical in nature and develop basic tactical skills such as planning and controlling squad-sized operations in a tactical environment. Phase two will be oriented toward outdoor-type of instruction.

104. Military Science I & II [2-2-0]

Taught spring semester.

This semester will consist of two basic phases. Phase one will be studies on the topic of American Military Development. The scope of the course will include the historical growth and development of the American Armed Forces with principal emphasis on military theory and doctrine, the principles of war, military professionalism, strategy, tactics, and logistics. Areas examined include: Battle and operational history and the interrelationships between the military and society. Phase two of the instruction will be practical in nature and will cover techniques of survival. Students learn and practice building survival shelters, identifying and collecting survival foods and many other keys to successful survival.

301. Military Science III [2-2-0]

Taught fall semester.

Studies of advanced leadership and man-

agement. The scope of the course will cover in detail the decision-making process, situational estimates, styles of leadership, and authority relationships. Also covered will be the structure and functioning of both the formal and informal organization, to include topics, such as span of control, information feedback, chain of command, goals and motivation related to the military organization.

302. Military Science II [2-2-0]

Taught spring semester.

Instruction given during this semester will be directed toward the reinforcement of prior military skills and developing new skills in preparation for advanced camp. Subjects covered will be marksmanship, weapons, physical training, map reading, and navigation, tactics and patrolling.

401. Military Science IV [2-2-0]

Taught fall semester.

Studies in Civil-Military Relations. The scope of the course will present a theory of civil-military relations and their impact on the contemporary world scene. Emphasis is placed on the extent to which these relations tend to affect the military security of society. The relationship of civil law and military law will also be examined in detail.

402. Military Science IV [2-2-0]

Taught spring semester.

Studies in organizational management. The scope of the courses will include an analysis of both the classical and behavioral theories of organizational structure, staff and line relationships of complex organizations, and the determinates of effective leadership and management in higher level organizations. Also investigated will be the relationship between individual and organizational motivation, line versus staff functions and the structure of higher level, complex organizations of a military force.



Modern Foreign Languages and Literatures

Associate Professor: Reppen

Assistant Professors: Guthrie, King,

Knorr, St. Onge, Scheiderer (Chairman)

The Department of Modern Foreign Languages and Literatures offers courses and programs that are designed to teach the student to understand and to speak a foreign language with facility, to develop skill in reading and writing, and to promote understanding and appreciation of foreign cultures and literatures. The Department also helps students to prepare for the teaching profession, the domestic and international business world, government work, social and welfare work, careers in science and medicine, work in and relating to the fine and performing arts, and research leading to advanced degrees. Thus, modern foreign languages and literatures are both an integral part of the liberal arts program and of many different career-oriented programs at the college. Major and minor programs are offered in French and in Spanish, and a minor is offered in German.

The study of a foreign language is one of the Distribution Requirements at the College. There are four courses in French, German, and Spanish, designed to satisfy this requirement; they are listed as 101-102 and 201-202 for each language. A student who has had no previous experience in foreign languages must take the four course sequence in one of the three modern foreign languages offered by the Department.

The results of a placement examination will determine where the student with previous language experience will begin his or her course work. Wherever the student begins, he or she must complete the sequence through the 202 course. Upon completion of 202, the foreign language requirement will be satisfied. Many students will earn up to fourteen credits for courses in the basic sequence they did not have to take as a result of advanced placement. Students scoring beyond the 202 level on the placement examination satisfy the distribution requirement and receive fourteen credits (this new policy is not retroactive). Consult any member of the Department for further information.

Students with French, German, or Spanish as their native language may not take the 101 or 102 course in that language for credit. These students must, however, take the placement examination; the results will be evaluated for appropriate placement by the Department.

The Department of Modern Foreign Languages and Literatures offers three courses in English designated as ML 205, ML 206 and ML 395. The first two ML courses (205, 206) will satisfy the Humanities Distribution Requirement for all degree-seeking students at the college. These courses are not sequential; a student may take them in the order most convenient to his or her schedule. ML 395 is a topics course which may be taken as an elective.

Modern Language

ML 205. The Novel of the French, German, Spanish, and Italian Speaking Worlds in English Translation [3-3-0]

Taught fall semester.

A course team-taught by members of the Department of Modern Foreign Languages and Literatures designed to acquaint the student with masterpieces of foreign literature through English translation. Material drawn from selected works of prose narrative from the French, German, Spanish, and Italian worlds. Texts chosen to provide a critical-historical perspective of major literary theme.

ML 206. The Drama of the French, German, Spanish, and Italian Speaking Worlds in English Translation [3-3-0]

Taught spring semester.

A course team-taught by members of the Department of Modern Foreign Languages and Literatures and designed to acquaint the student with masterpieces of foreign literature through English translation. Material drawn from selected works of drama from the French, German, Spanish, and Italian worlds. Texts chosen to provide a critical-historical perspective of a major literary theme.

ML 395. Elementary Topics in English Translation [3-3-0]

Prerequisite: Completion of Humanities Distribution Requirement or consent of instructor.

Courses for majors and non-majors in cross cultural topics, comparative literature, and French, German, Italian, Spanish, and Latin-American literature in translation. No student may enroll more than twice for credit.

French

A major program in French consists of twenty-seven semester hours above the 202 level and must include French 251, 252, and French 301 or 303. The remaining eighteen hours of major electives are left to the discretion of the student so that each individual can create a major program emphasizing either literature or language and civilization courses according to his or her career objectives. The Department recommends that cognate courses in English, history, philosophy, music, and art be studied to support the major. The study of a second language is strongly recommended. Unless otherwise specified, the prerequisite for all 300- and 400-level courses is 251-252 or consent of the instructor.

A minor program in French consists of eighteen hours of course work above the 100 level and must include French 251 and 252. The minor program in French is a valuable complement to many concentrations, particularly biology, business administration, chemistry, economics, elementary education, English, history, philosophy, political science, psychology, sociology, and theater arts.

In conjunction with the Education Department, the Department of Modern Foreign Languages and Literatures offers a program leading to certification in the teaching of French in intermediate and secondary schools. Thirty hours of credit, including 100-level courses, are required if French is the primary foreign language; twenty-four hours are required if French is the second foreign language in which certification is sought. A student preparing for certification in French is required to include French 310. During practice teaching, the student will take the Materials and Methods course, 403L, which does not apply to

the major.

Sample Program for French Majors

Course	Hours
Freshman Year	
English 101-102	6
French 101-102	8
Social Science	6
Humanities	6
Math	6
32	
Sophomore Year	
French 201-202	6
Social Science	6
Lab Science	8
Second Language or Minor	8
Physical Education	4
32	
Junior Year	
French 251-252	6
French 301 or 303	3
French Electives	6
Second Language or Minor	6
Electives or Education	9
30	
Senior Year	
French Electives	12
Second Language or Minor	6
Elective or Education	12
30	

101, 102. Elementary French [4-3-1] [4-3-1]
Taught both semesters.

Establishment of a basic foundation in the French language. Emphasis on the acquisition of practical vocabulary and structure through oral usage in the classroom and laboratory. Reading and writing skills based on the same material are developed simultaneously.

103. Accelerated Elementary French [3-3-0]

Prerequisite: Placement examination.
An accelerated review of French grammar. Structure and vocabulary-building exercises.

201. Intermediate French [3-3-0]

Prerequisite: French 101-102, or 103, or by placement examination. Taught fall semester.

A review of basic vocabulary and structures, emphasizing increased oral fluency

and further development of reading, writing, and listening comprehension skills.

202. Intermediate French [3-3-0]

Prerequisite: French 301 or by placement examination. Taught spring semester. More advanced work in all areas of the language. Material equally divided between practical conversation and selected readings from modern French literature. Compositions of both a practical and literary nature. Lectures, discussions, reports. Conducted chiefly in French.

251. Introduction to French Literature [3-3-0]

Prerequisite: French 202 or the equivalent. Taught fall semester. A survey of French literature emphasizing the major authors and principal literary movements from the Middle Ages through the seventeenth century. Some study of genres as an introduction to general techniques of literary analysis. Materials treated from both an historical and a thematic approach. Concurrent development of language skills through lectures, discussions, and short themes in French.

252. Introduction to French Literature [3-3-0]

Prerequisite: French 202 or the equivalent. Taught spring semester. A survey of French literature emphasizing the major authors and principal literary movements from the eighteenth century to the present. Some study of genres as an introduction to general techniques of literary analysis. Material treated from both an historical and a thematic approach. Concurrent development of language skills through lectures, discussions, and short themes in French.

301. Grammar and Composition [3-3-0]

Prerequisite: French 202 or the equivalent. Offered in alternate years. Review of the main principles of syntax, composition and translation. Conducted chiefly in French.

302. Practical Conversation [3-3-0]

Prerequisite: French 202 or the equivalent. Offered in alternate years.

The aim of this course is to develop greater fluency in speaking and writing idiomatic French. Intensive oral-aural training. Conducted chiefly in French.

303. Advanced Grammar and Composition [3-3-0]

Prerequisite: French 202 or the equivalent. Study of syntax and style through composition and translation. Conducted chiefly in French.

304. Conversational Approach to Society and Institutions [3-3-0]

Prerequisite: French 202 or consent of the instructor. Conversations emphasizing social phenomena and institutions serve as the format for improving general fluency and developing a more abstract vocabulary than in 302. Stress will be placed on vocabulary related to French society and social situations.

310. Practical French Phonetics [3-3-0]

Prerequisite: French 202 or equivalent. An intensive study of pronunciation, rhythm, intonation, and the international phonetic alphabet designed to increase oral proficiency. Extensive use of programmed laboratory materials.

311. French Civilization [3-3-0]

Prerequisite: French 201 or equivalent. A study of French society and culture from their origins to W.W.I., encompassing geography, history, art, and social customs.

312. Contemporary France [3-3-0]

A study of French culture and society from WW I to the present, encompassing social and political trends, art, architecture, and historical events.

361. Seventeenth-Century French Literature [3-3-0]

Prerequisite: French 251-252 or consent of instructor. A survey of the major authors and genres of the seventeenth century, including the dramatists, the moralists, and the baroque poets. Emphasis on the theatre through selected plays of Corneille, Moliere, and Racine. Conducted chiefly in French.

371. Eighteenth-Century French literature [3-3-0]

Prerequisite: French 251-252 or consent of instructor. Reading and analysis of the major works of the French Enlightenment. Developments in the novel and the theater of the period.

381. Nineteenth-Century French Literature [3-3-0]

Prerequisite: French 251-252 or consent of instructor. A survey of the major authors and works of nineteenth century prose, poetry, and drama. Organization of the material by genre within the context of the principal literary movements of the period from Romanticism to Symbolism.

395. Elementary Topics [3-3-0]

Prerequisite: French 251-252 or consent of instructor. A seminar in major literary periods or topics related to historical and cultural developments. Emphasis on research methods. No student may enroll more than twice for credit.

403. Advanced Writing and Stylistics [3-3-0]

Prerequisites: French 301 or 303 or Consent of the Instructor. French 403 is directed toward the student who is already familiar with the basic principles of French grammar and composition. The emphasis at this level is on increasing the student's facility in writing French and on helping him develop appropriate levels of style. These goals will be implemented through a variety of written work, including free and guided compositions, translation, and business correspondence.

491. Twentieth-Century French Novel [3-3-0]

Prerequisite: French 251-252 or consent of instructor. A critical and historical study of prose fiction in the twentieth century, emphasizing the development of the genre as seen in the novels of Proust, Gide, Malraux, Mauriac, Sartre, Camus, and other major authors.

492. Twentieth-Century French Poetry and Drama [3-3-0]

Prerequisite: French 251-252 or consent of instructor. A critical and historical study of the major poetic trends of the twentieth century as seen in the works of Apollinaire, Peguy, Claudel, Valery, the Surrealists, and Prevert. Accompanying study of the drama of the period through the works of Apollinaire, Claudel, Giraudoux, Anouilh, Cocteau, Sartre, Ionesco, and Becket.

495. Advanced Topics in French [3-3-0]

Prerequisite: Senior standing or consent of instructor. A seminar in major authors or topics related to historical and cultural periods with subject matter and instructor changing each semester. The seminar topic will represent both student interest and the specialty (or research in progress) of an individual member of the department. No student may enroll more than twice for credit.

499. Independent Study

Prerequisite: Upperclass standing. A course for upperclassmen in French studies. The area of study and number of credits may vary each time the course is taken.

German

A minor program in German consists of eighteen hours of course work above the 100-level. No specific courses are required. The minor program in German is a valuable complement to most concentrations, particularly biology, business administration, chemistry, economics, elementary education, English, French, history, philosophy, political science, psychology, sociology, Spanish, and theater arts.

In conjunction with the Education Department, the Department of Modern Foreign Languages and Literatures offers a program leading to certification in the teaching of German in intermediate and secondary schools. Thirty hours of credit, including 100-level courses, are required if German is the primary foreign language; twenty-four hours are required if German is the second foreign language in which certification is sought.

Unless otherwise noted, all German courses will be conducted chiefly in German.

101, 102. Elementary German
[4-3-1] [4-3-1]

101 taught in fall semester and 102 taught in spring semester.

An introduction to understanding, speaking, reading, and writing German. The student uses the language in practical situations while acquiring a basis for reading and writing the language in his area of interest. May not be taken by a native speaker of the language. First semester may not be taken for credit by students with two or more years of high school German.

103. Accelerated Elementary German
[4-3-1]

Prerequisite: Placement Examination. A special course in German language for students who have been exposed to the language through formal study or foreign experience. Emphasis is placed on active use of the language in practical situations, with exercises on structure and vocabulary providing a basis for the use of reading and writing in the student's area of interest.

201. Intermediate German I [3-2-1]

Prerequisite: 102 or 103 or Placement Examination. Taught fall semester. A course reviewing the major grammatical structures of the language and further developing the student's ability to understand, speak, read, and write German. Emphasis is placed on use of the language.

202. Intermediate German II [3-3-0]

Prerequisite: 201, by placement or by consent of instructor. Taught spring semester. Readings and discussions in modern German literature, culture, and civilization. Emphasis is placed upon the expansion of the student's active and passive vocabularies toward the goal of using a knowledge of German for leisure, vocational, or professional purposes. Alternate independent reading and translation projects are available within the course for students in

business and the social and natural sciences.

251, 252. Introduction to German Literature [3-3-0] [3-3-0]

Prerequisite: German 202 or the equivalent. 251 taught fall semester; and 252 taught spring semester.

A survey of German literature emphasizing major writers and literary trends; first semester from the beginnings through the Age of Goethe; second semester from 1800 to the present.

301. Grammar and Composition [3-3-0]

Prerequisite: German 201 or the equivalent.

A course dealing with the chief difficulties of grammar and the main principles of syntax, focusing on the development of skill in writing and translating. Included is an individualized writing and translating track determined by the student's expressed interest or major field.

303. Conversation and Comprehension
[3-3-0]

Prerequisite: German 201 or the equivalent.

A course to develop greater fluency in speaking idiomatic German and greater ability to comprehend the language in a variety of practical situations. Phonology, intensive training in speaking and listening, extensive use of recorded and filmed materials and native speakers, discussions.

303. Usage and Stylistics [3-3-0]

Prerequisite: German 202 or the equivalent.

A course in usage and prose style through composition and translation. The student is introduced to the major reference works in usage and diction and for translation. Essay topics and translation projects to be determined by the area of interest or concentration of the student.

311. German Civilization [3-3-0]

Prerequisite: German 202. A study of the German-speaking area of Europe, encompassing art, music, philosophy, history, geography, and social cus-

oms. Emphasis on the contributions of the German-speaking societies to Western civilization. Guest lecturers in the above subjects will be invited whenever possible.

395. Topics [3-3-0]

Prerequisite: Junior standing or consent of instructor.

Courses in major literary periods and genres, in practical aspects of the language, in German civilization, and in German literature in translation. Courses in translation may not be counted toward a minor in German. No student may enroll more than twice for credit.

490. Seminar in German Literature [3-3-0]

Prerequisite: Senior standing or consent of instructor.

Topics in major authors or specific literary themes. The seminar topic will represent both student interest and the specialty or research in progress of individual members of the department. No student may enroll more than twice for credit.

499. Independent study

Prerequisite: Senior standing or consent of instructor. Taught upon request and at the discretion of the department.

Projects for upperclassmen in German language, literature, and civilization.

Spanish

A major program in Spanish consists of a minimum of twenty-seven semester hours above the 202 level and must include nine hours selected from the following courses: Spanish 251, 252, 301, 303, 351, or 352. The remaining eighteen hours of major electives are left to the discretion of the student in consultation with his or her adviser, so that each individual may create a major program emphasizing his or her particular career objectives. The Department recommends that cognate courses in English, history, philosophy, music, and art be studied to support the major. Unless otherwise specified, the prerequisite for all 300- and 400-level courses is the successful completion of Spanish 251 or 252 or the consent of the instructor.

A minor program in Spanish consists of eighteen hours of course work above the 100-level and Spanish 251, 252, or Spanish

351, 352 are recommended. The minor program in Spanish is a valuable complement to most majors, particularly biology, business administration, chemistry, economics, elementary education, English, history, philosophy, political science, psychology, sociology, and theater arts.

In conjunction with the Education Department, the Department of Modern Foreign Languages and Literatures offers a program leading to certification for teaching Spanish in the intermediate and secondary schools. Thirty hours of credit, including 100-level courses, are required if Spanish is the primary foreign language; twenty-four hours are required if Spanish is the second foreign language in which certification is sought. A student preparing to teach Spanish must take Spanish 302 or 304. During practice teaching, the student will take the Materials and Methods course, 403L, which does not apply to the major.

Sample Program for Spanish Majors

Course	Hours
Freshman Year	
English 101-102	6
Spanish 101-102	8
Social Science	6
Humanities	6
Math	6
	32
Sophomore Year	
Spanish 201-202	6
Social Science	6
Lab Science	8
Second Language or minor	8
Physical Education	4
	32
Junior Year	
Spanish 251, 252	6
Spanish 301-303	3
Spanish Electives	6
Second language or minor	6
Elective or Education	12
	30
Senior Year	
Spanish Electives	12
Second language or minor	6
Elective or Education	12
	30

101, 102. Elementary Spanish
[4-3-1] [4-3-1]

Taught both semesters.

An introduction to the Spanish language, with emphasis on reading, writing, speaking, and listening comprehension. Accompanying laboratory practice.

103. Accelerated Elementary Spanish [3-3-0]

Prerequisite: Placement examination. Taught each fall semester. An accelerated review of elementary Spanish grammar with emphasis on speaking and listening skills.

201. Intermediate Spanish [3-3-0]

Prerequisite: Spanish 101-102, 103, or placement examination. Taught fall semester. A review of grammatical structure, with further development of reading, writing, speaking, and listening comprehension skills.

202. Intermediate Spanish [3-3-0]

Prerequisite: Spanish 201 or placement examination. Taught spring semester. Further development of reading, writing, speaking, and listening comprehension skills. Conducted chiefly in Spanish.

251, 252. Introduction to Spanish Literature [3-3-0] [3-3-0]

Prerequisite: Spanish 202 or consent of instructor. A survey of Spanish literature, emphasizing the major writers and the dominant literary trends. First semester from *El Cid* through the Golden Age; second semester from 1700 to the present.

301. Grammar and Composition [3-3-0]

Prerequisite: Spanish 202 or the equivalent. Taught fall semester, 1977-78. Review of main principles of syntax. Composition and translation. Conducted chiefly in Spanish.

302. Conversation [3-3-0]

Prerequisite: Spanish 202 or the equivalent. Taught in 1977-78. The aim of this course is to develop the ability to speak Spanish with greater fluency. Intensive oral-aural training. Conducted chiefly in Spanish.

303. Advanced Grammar and Composition [3-3-0]

Prerequisite: Spanish 202 or the equivalent. Taught in 1978-79. Study of syntax and style through composition and translation. Conducted chiefly in Spanish.

304. Practical Conversation and Diction [3-3-0]

Prerequisite: Spanish 202 or consent of instructor. Taught in 1978-79. A course designed to increase the speaking ability of the students through the use of live radio and interviews of native speakers on topics of current interest. Emphasis will be placed on proper and accurate pronunciation as well as fluency.

311. Spanish Civilization [3-3-0]

Prerequisite: Spanish 202 or consent of instructor. Taught fall semester, 1978-79. A study of contemporary society and culture of Spain encompassing geography, history, art, music, and social customs.

312. Spanish-American Civilization [3-3-0]

Prerequisite: Spanish 202 or consent of instructor. Taught fall semester, 1977-78. A study of contemporary society and culture of the Spanish-American countries encompassing geography, history, art, music, and social customs.

351, 352. Introduction to Spanish-American Literature [3-3-0] [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught in 1977-78. A survey of Spanish-American literature, emphasizing the major writers and the dominant literary trends. First semester from the colonial period to Modernism. Second semester from Modernism to the present.

363. Drama of the Golden Age [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught fall semester, 1977-78. Detailed study of the drama of the Golden Age: Lope de Vega, Cervantes, Tirso de Molina, Ruiz de Alarcón and Calderón de la Barca.

364. The Novel and the Poetry of the Golden Age [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Major emphasis on the picaresque novel and the development of poetic expression from Garcilaso to Gongora.

391. The Generation of '98 [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught fall semester, 1977-78. Representative figures include Unamuno, Azorín, and Baroja.

392. Twentieth-Century Spanish Literature [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Contemporary studies in the genres of poetry, drama, and the novel.

393. Modernismo [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught fall semester, 1978-79. A critical and historical study of the poetry and prose of the Modernistas and successors.

394. Twentieth-Century Spanish-American Literature [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught spring semester, 1978-79. Critical and historical study of representative works of the twentieth century.

395. Elementary Topics [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught both semesters. A seminar in major literary periods or topics related to historical and cultural developments. Emphasis on research methods. No student may enroll more than twice for credit.

463. Cervantes [3-3-0]

Prerequisite: Spanish 251, 252, or consent of instructor. Taught spring semester, 1978-79. A seminar on Cervantes, his life and works. Major emphasis on *Don Quixote*.

495. Advanced Topics in Spanish [3-3-0]

Prerequisite: Senior standing or consent of instructor. Taught both semesters. A seminar in major authors or topics related to historical and cultural periods, with subject matter and instructor changing each semester. The seminar topic will represent both student interest and the specialty (or research in progress) of an individual member of the department. No student may enroll more than twice for credit.

499. Independent Study

Prerequisite: Upperclass standing. Taught

甲	申	Ki-no-e
乙	子	Ki-no-to
丙	酉	Hi-no-e
丁	午	Hi-no-to
戊	戌	Tschi-no-e
己	巳	Tschi-no-to
庚	寅	Ka-no-e
辛	丑	Ka-no-to
壬	子	Mizu-no-e
癸	亥	Mizu-no-to

both semesters upon request and at the discretion of the Department. A course for upperclassmen in Hispanic Studies. The area of study and number of credit hours may vary each time the course is offered.

Philosophy

Associate Professors: Hoaglund (Chairman), Nauman
Assistant Professor: Teschner

The philosophy program at the College is liberal in its orientation in that it aims to free the mind of prejudice and dogma to prepare the way for a critical stance that produces affirmative beliefs. It focuses on two areas of general human interests: methods of correct thinking and the values people live by. The Department affirms that every human being has a responsibility to himself to develop his or her native abilities in order to lead a full and satisfying life. Clear thinking and a sharpened sense of values contribute significantly to this end. A democratic form of government such as ours can flourish only when its citizens are aware of the value implications of proposed policies and can logically weigh and rationally debate their merits. Courses in logic, the theory of knowledge, the philosophy of language, and the philosophy of science are designed to improve the student's ability to think critically and reason incisively. Courses in ethics, aesthetics, social and political philosophy, and the philosophy of religion are designed to sharpen the student's awareness of values in several main areas of human endeavor; these courses encourage the student to weigh competing values against each other as the foundation of intelligent decision-making. Other courses combine these two aims.

To major in philosophy the student must take at least thirty hours in philosophy. No set sequence of courses is prescribed, although Philosophy 101-102 should be taken at an early stage. Students should work out a specific program with their adviser. The main goal of philosophy is to prepare people for an enriched life. Philosophy is also an excellent preparation for specific professions, and many philosophy majors enter careers in publishing, journalism, broadcasting, or governmental administration at the local, state, or national levels. A number of philosophy majors enter graduate school for advanced degrees in the humanities and then go into college-level teaching, while still others enter law school, for which

their training in logical techniques and value-awareness provides them an excellent background. Philosophy majors are encouraged to broaden their acquaintance with ancient and recent thinkers and with current issues by independent reading. They are also encouraged to take one or two years of a foreign language.

Philosophy supports other programs at the College wherever critical thinking and a sharpened sense of values are important. For example, the general area of ethics, aesthetics, and social, political, and religious values may be of special interest to students concentrating in the humanities and the social sciences. The requirement for a minor in philosophy is fifteen hours of courses above the 100-level.

Sample Program for Philosophy Majors

Course	Hours
Freshman Year	
English 101-102	6
Philosophy 101-102	6
Laboratory Science	8
Social Science	6
Elective	3
Physical Education	2
	31
Sophomore Year	
Philosophy 201-202	6
Foreign Language	6
Philosophy 307-308	6
Humanities elective	6
Science elective	6
	30
Junior Year	
Philosophy 304-305	6
Foreign Language	6
Philosophy 306, 395	6
Electives	12
	30
Senior Year	
Philosophy 310, 440	6
Philosophy 421, 495	6
Philosophy 490	3
Electives	15
	30

101. Elementary Logic [3-3-0]

Taught both semesters.

A course designed to improve the student's ability to reason by using the traditional predicate logic of the syllogism, elementary

techniques of propositional logic using symbols, techniques of identifying fallacies and defining words with precision as well as introducing some methods of inductive reasoning.

102. Introduction to Philosophic Inquiry [3-3-0]

Taught both semesters.

The application of logical techniques of reasoning to some of the basic problems of philosophy that arise in everyone's experience: freedom, alienation, and personal identity; the enigma of being; moral values and the aim of life; ethical relativity and egoism; the justification of religious belief; and the problem of evil.

201. The History of Philosophy [3-3-0]

Taught both semesters.

An historical introduction to philosophy with special readings in the presocratics, Plato, Aristotle, the Stoics and Epicureans, St. Thomas Aquinas, and others. The nature of philosophy and basic philosophic problems will be discussed through these writers.

202. The History of Philosophy [3-3-0]

Prerequisite: Philosophy 201 or consent of instructor. Taught both semesters.

An historical introduction to modern philosophy with readings from Descartes, Spinoza, Locke, Berkeley, Hume, Kant and others. These philosophical writings will be studied not only for their own worth, but also as a means of acquainting the student with the nature of philosophy and the basic philosophical quest. Some time will be given to the political and cultural milieu out of which these philosophies came.

301. Intermediate Logic [3-3-0]

Prerequisite: Philosophy 101 or its equivalent.

This course presupposes some familiarity with propositional logic, including truth-table analysis of propositions, and truth-table tests of the validity or propositional arguments. It develops the ability to use deduction as a test of the validity of propositional arguments, then treats quantification notation and deduction as a test of validity of arguments employing quantified

propositions. It is restricted to first-order predicate logic (propositions with only individual variables quantified), but does treat the notation of relational propositions and deductive tests of validity of arguments employing them.

302. Advanced Logic [3-3-0]

Prerequisite: Philosophy 301 or its equivalent.

Beginning with an examination of some properties of formal deductive systems, this course proceeds to develop axiom systems for both propositional predicate logic, and to prove the consistency and completeness of each.

304. Ethics and Current Value Issues [3-3-0]

Taught annually.

A systematic study of the central problems of right action, stressing value and decision in the individual; the distinction of facts from values; rules versus ends; generalization and moral rules; the ground and nature of moral obligation; freedom, moral responsibility, and the justification of punishment; the viability of egoism; the relativity of moral values.

305. Theory of Knowledge [3-3-0]

Prerequisite: Philosophy 101 or consent of instructor.

A rigorous examination of the main problems of knowledge designed to aid the student in thinking clearly and precisely; the meaning and reference of words; theories of truth; universals and particulars; theories of perception; the justification of induction; memory or knowledge of the past; knowledge of other minds; empirical and a priori knowledge; the relation of knowledge to belief.

306. Philosophy and the Fine Arts [3-3-0]

Taught annually.

This course confronts the student with the artwork and its elementary descriptive terminology and then considers the general significance of the fine arts and beauty or aesthetic value in the life of man by a systematic treatment of these problems: expression; creativity; the objectivity of the aesthetic judgement; the nature of the aesthetic experience, aesthetic qualities,

and the aesthetic object; the analysis of aesthetic value; art and morality.

307. Contemporary Philosophy [3-3-0]

Taught annually.

An examination of the most important topics and theories of the leading philosophers of the twentieth century. Major British and Continental philosophers will be treated as well as American.

308. Philosophy of Religion [3-3-0]

Taught annually.

An analysis of the nature and attributes of God (such as omnipotence and benevolence) with special reference to the problem of evil; statement and criticism of the arguments for the existence of God; the problems of religious language, such as whether religious statements must be meaningless, symbolic, or analogical; the relation of reason to revelation, faith, and miracles.

310. Social and Political Philosophy [3-3-0]

Taught annually.

An examination of attempts to provide a philosophical foundation for political authority, focusing on such problem areas as traditionalist, contractarian, and utilitarian theories of authority; natural rights; legal positivism; negative and positive political freedom; civil disobedience; distributive justice or equality; retributive justice or punishment; the public interest.

317. Existentialism [3-3-0]

Prerequisite: Junior or Senior standing or consent of instructor.

A study of Existentialism from its 19th-century beginnings with Kierkegaard and Nietzsche to the work of Jaspers, Heidegger, and Sartre. Topics that will be treated include the existentialist view of man's predicament, the concepts of anxiety, dread, and the absurd, the will to power, and man as a being toward death. Both the methodological foundations of Existentialism in the phenomenology of Husserl and its literary roots in such writers as Dostoevsky, Tolstoy, and Camus will be treated.

395. Elementary Topics in Philosophy [3-3-0]

Prerequisite: Three hours of philosophy or consent of instructor. Taught annually.

The following topics or similar ones will be offered on the basis of student interest: individual philosophers such as Plato or Hume; eras such as British Empiricism; elementary logical theory; Philosophy of Science; Philosophy of Law; medical ethics; business ethics.

421. Eastern Philosophy [3-3-0]

Taught annually.

A study of oriental philosophies using source materials from China, India, Japan, Tibet, Korea, and Persia. Both ancient and modern Asian authors will be studied, including the I-Ching, Bhagavad-Gita, Zen Buddhism, and the Tibetan Book of the Dead.

440. American Philosophy [3-3-0]

Prerequisite: Philosophy 201-202 or consent of instructor. Taught annually.

A history of American philosophical thought from colonial times to the present day, from Ames to Hoffer, concentrating on those traits distinctive in American philosophers. Included will be figures from the Golden Age of American philosophers such as William James and George Santayana.

451. Great Philosophers (Ancient) [3-3-0]

Prerequisite: Junior or Senior standing or consent of the instructor.

A comprehensive examination of the writings of one of the major thinkers of the Ancient or Medieval Periods.

452. Great Philosophers (Modern) [3-3-0]

Prerequisite: Junior or Senior standing or consent of the instructor.

A comprehensive examination of the writings of one of the major thinkers within the period from the Renaissance to the present.

484. Medical Ethics [3-3-0]

Prerequisite: Junior or Senior standing or consent of the instructor.

An examination of the major value issues in the life sciences and medicine. The student is introduced to moral problems and

techniques of dealing with them in these areas: abortion, transplants, death, experimenting with humans, behavior control, genetic engineering; aspects of the physician-patient relation such as how much to tell, maintaining confidentiality, obtaining consent; getting health care to those who need it.

490. Senior Seminar [3-3-0]

Prerequisite: Open only to philosophy majors with Senior standing. Taught annually.

A seminar course concentrating on one philosopher or concept. A major research paper is required from each student. Recommended for all philosophy majors.

495. Advanced Topics in Philosophy [3-3-0]

Prerequisite: Six hours of philosophy or consent of instructor. Taught annually.

The following topics or similar ones will be offered on the basis of student interest: individual philosophers such as Kant or Wittgenstein; eras such as Presocratic philosophy; Philosophy of Language; Philosophy of Mind; action theory; decision theory; theories of justice; modal logic.

499. Independent Research [3-3-0]

Prerequisite: Philosophy major, Senior status.

A research project involving substantial reading on a specific problem, theme, or the work of an individual philosopher. The research is supervised by a staff member who must approve the project before registration. A research paper is required.



Physical Education

Associate Professors: Cummings, Seats, Hubbard (Chairman)

Assistant Professors: Armistead, Royall, Vaughan

The Department of Physical Education provides a wide variety of activities courses designed to fulfill the physical education distribution requirement as well as a program of study leading to state certification in Health and Physical Education. The Physical Education Department is committed to education through a sound mind and a sound body, and to the development of well-rounded men and women through physical activity.

In the activities courses, the student learns motor skills valuable for recreational use through his or her lifetime. The activities program stresses such components of physical fitness as cardiovascular and muscular endurance, agility, and coordination. An understanding and appreciation of movement and the scientific principles related to movement are developed through the medium of games and sports. Emphasis is placed on knowing how and why an activity or skill should be performed. Moreover, through these activities, the student is encouraged to develop desirable social standards, ethical concepts, and safety skills and habits. The Department also offers individualized programs for students who are handicapped or must be restricted in their physical activity. Any applicant, regardless of status, who plans to take a Physical Education activity course, must submit a completed current medical examination form (within 2 years). This form will be provided at the time of admission and will be filed with the Physical Education Department.

To receive state certification in Health and Physical Education, a student must take a minimum of thirty-six hours of course work in four content areas and must meet all professional education requirements: (1) *Scientific Background* (Biology 213, 314, *Anatomy and Physiology*; and Physical Education 409, *Kinesiology*); (2) *General Theory in Health, Physical Educa-*

tion, and Safety (Physical Education 311 or 410, *Methods and Materials*; Physical Education 309, *History and Principles*; Education 414P, *Educational Measurements and Evaluation*; Physical Education 417, *Organization and Administration of Health, Physical Education, and Recreation*); (3) *Health and Safety Education* (Physical Education 321, *Foundations of Health*; Physical Education 415, *Athletic Injuries*); and (4) *Education Activity and Theory* (seven activities courses).

For elementary certification, the student must take Physical Education 308, *Health and Safety*; Physical Education 311, *Methods and Materials*; and Physical Education 318, *Movement Education and Activity*. For secondary certification, the student must take Physical Education 410, *Methods and Materials*, and should include two courses necessary for a Driver Education endorsement: Physical Education 308, *Safety Education*, and Physical Education 317, *Driver Education and Safety*. Students who seek endorsement in elementary, secondary, and driver education must take a minimum of forty-five hours.

The following activities courses carry two credits and may be used to satisfy the physical education requirement. Physical Education 102, *Beginning Soccer*; 103, *Basketball and Volleyball*; 111, *Lacrosse*; 112, *Intermediate Soccer*; 155, *Field Hockey and Basketball*; 156, *Softball and Volleyball*; 170, *Beginning Modern Dance*; 171, *Intermediate Modern Dance*; 172, *Beginning Tennis*; 175, *Archery and Badminton*; 179, *Beginning Swimming*; 180, *Beginning Fencing*; 181, *Physical Conditioning*; 182, *Volleyball*; 183, *Intermediate Swimming*; 184, *Beginning Gymnastics*; 186, *Beginning Golf*; 189, *Intermediate Gymnastics*; 193, *Intermediate Tennis*; 195, *Beginning Bowling*; 196, *Intermediate Bowling*; 197, *Beginning Karate*; 198, *Intermediate Karate*; 199, *Badminton and Volleyball*.

190. Recreation [2-2-0]

Taught fall semester.

Review of the professional aspects of physical education: history, principles, aims, literature, professional organizations, trends, career responsibilities, and qualifications.

191. Personal and Community Health [3-3-0]

Taught spring semester.

Designed to develop knowledge, understanding, and desirable attitudes related to personal and community health.

209. Theory and Fundamentals of Bowling, Archery, and Badminton [3-3-0]

Theory, practice, coaching methods, and officiating techniques.

211. Theory and Fundamentals of Soccer and Wrestling or Rhythmic [3-2-2]

Theory, practice, coaching methods, and officiating techniques.

212. Theory and Fundamentals of Swimming and Gymnastics [3-2-2]

Theory, practice, coaching methods, and officiating.

213. Theory and Fundamentals of Field Hockey or Football and Basketball [3-2-2]

Theory, practice, coaching methods, and officiating.

214. Theory and Fundamentals of Golf and Tennis [3-2-2]

Theory, practice, coaching methods, and officiating techniques.

216. Theory and Fundamentals of Conditioning and Track [3-2-2]

Theory, practice, coaching methods, and officiating techniques.

218. Theory and Fundamentals of Baseball or Softball and Volleyball [3-2-2]

Theory, practice, coaching methods, and officiating techniques.

305. Camping and Recreation [3-3-0]

Development of skills and leadership in camping and recreational activities. Field trips and overnight camping will be a course requirement.

308. Safety Education and First Aid [3-3-0]

Taught fall semester.

This course is designed to develop a knowledge of and attitudes concerning the safety aspects of all areas of activity in the home, school, and community. The course

should be taken along with P.E. 317 for Driver Training certification in the State of Virginia. Standard Red Cross First Aid requirements are incorporated into this course.

309. History and Principles of Health, Physical Education, and Recreation [3-3-0]

Taught fall semester.

A study of the basic biological, psychological, and sociological contributions of Physical Education, Health and Recreation in various societies. The development of Physical Education, Health, Recreation and sport from primitive times to the present will be traced.

311. Methods and Materials in Elementary School Health and Physical Education [3-3-0]

Application and study of teaching methods and materials applicable to elementary school and early childhood. Organization of classes, selection of content, use of resources, and evaluation will be studied.

315, 316. Sports Officiating [3-3-0]

Taught both semesters.

Study and analysis of rules and officiating techniques. A minimum number of contact hours of practical experience in supervised officiating in the intramural, city recreation, and YMCA league is required.

317. Driver Education and Traffic Safety [3-3-0]

Taught spring semester.

Classroom instruction combined with road training, observation, traffic safety, and teaching of driving to beginners on a multiple car range. Knowledge and experience in the use of a simulator and other audio-visual aids will be required.

318. Rhythms, Movement Education and Activities on the Elementary Level [3-2-2]

Taught spring semester.

Practice in the skills and physical education activities for the elementary school classroom teacher and physical education specialist. Included are analysis of movement, games, and activities suitable for the elementary school child.

321. Fundamentals of Health [3-3-0]

Taught both semesters.

A course designed for prospective elementary and secondary teachers. This course deals with the historical development of the school health program, and will emphasize the healthful school environment, school health services, health education instruction, and first aid and safety. A course requirement for those who seek Virginia State Teacher Certification.

395. Topics in Health, Physical Education, and Recreation [3-3-0]

Prerequisite: Upper-level standing or consent of instructor. Taught spring semester. The student may offer no more than nine credits toward graduation.

Topics not included in the regular curriculum will be selected for advanced treatment or to fit special needs.

401P. Supervised Teaching in Physical Education [3-2-25]

Prerequisite: Consent of instructor.

Taught fall semester.

A supervised teaching experience as part of the professional semester for prospective teachers. See Education 401.

409. Kinesiology [3-3-0]

Prerequisite: Biology 101-102 and 213. Taught spring semester.

A study of the principles of human motion with an anatomical and mechanical analysis of individual skills in physical education activities.

410. Methods and Materials in Health, Physical Education on the Secondary Level [3-3-0]

Class procedures and review of methods and materials used in the health and physical education programs on the secondary level.

414P. Educational Measurements and Evaluation [3-3-0]

Prerequisite: Consent of instructor. Taught both semesters. See Education 414.

415. Care and Prevention of Athletic Injuries [3-3-1]

The course is designed to give the student a

background in the prevention of athletic injuries; to instruct the student in various techniques of first aid; and to familiarize the student with rehabilitation techniques and types of equipment.

417. Organization and Administration of Health and Physical Education Programs [3-3-0]

Taught spring semester.

A study of the nature and function of administration as it relates to health and physical education programs. The course provides the student with specific tasks of administrators in physical education programs in schools and colleges.



Physics

Professor: G. Webb (Chairman)

Associate Professor: Buoncrisiani

Assistant Professors: Al-Salam, J. Webb

The Physics Department offers a core of traditional courses in physics for students in science, mathematics, and pre-engineering. In addition to its commitment to serve the science student, the Department has two special goals: to increase the understanding of the uses of science and technology for solving urban problems and to increase public awareness of the relation between science and technology and the realm of human values. Because of these special goals, the Department offers courses that will interest students in the liberal arts, and in business, and members of the community. The orientation of the Department is the applied use of physics in the study of the modern world.

The Department's programs contain courses, workshops, and seminars. Formal course offerings appear below, but the current class schedule or the department chairman should be consulted for information on topics courses, workshops, or seminars that are available each semester.

The courses offered by the Department will make it possible for students to develop any one of the following concentrations in physics: (1) a minor in physics for science and math majors; (2) a two-year basic pre-engineering program; (3) a pre-professional physics program; (4) a program of re-certification for science teachers. Students interested in a value-oriented physics program designed specifically for liberal arts and business majors should see members of the Department for help in planning a program that will take into consideration their career plans and special abilities.

A Minor Program in Physics

A minor concentration in Physics requires satisfactory completion of Physics 201-202 and at least fifteen additional credit hours in physics courses above the 200 level. These additional hours must include one course in classical physics and one course in modern physics. Persons who are

majoring in Chemistry, Biology, Computer Science, and Mathematics are especially suited for such a minor program.

Pre-Engineering Program

The Physics Department with the cooperation of Old Dominion University and Virginia Polytechnic Institute and State University has designed a pre-engineering program in which Peninsula students can complete two years of engineering study. Persons who finish the program at CNC will be able to begin their studies at ODU and VPI as juniors, contingent upon admission to these schools. The program is also suitable for transfer to most other engineering schools in the country.

Christopher Newport's program is ideal for those students who want to try their skills in a personal program that can be individually tailored to their needs, who want to prepare for the large state universities with a high-quality beginning at a moderate-sized college that is within biking or driving distance of their homes.

An important feature of the program is its flexibility. With a careful choice of electives, the student is prepared for further study as a mechanical, electrical, civil, or chemical engineer and for study and research in the important area of engineering science. Students who would like more freedom in the courses that they take or who would like a more leisurely pace in order to develop their maturity in the engineering sciences can take three years to complete the program.

The courses in the Pre-Engineering Program are listed below.

Course	First Year	Hours
	Fall	
Chemistry 121		3
Chemistry 125		2
Physics 201		4
Math 140		4
English 101		3
Physics 121		2
		18
	Spring	
Chemistry 122		3
Chemistry 126		2
Physics 202		4

Math 240	3
English 102	3
Physics 122	2
	17

Second Year

	Fall	
Math 250		3
Technical Elective *		3
Physics 301		4
Physics 351		3
Humanities Elective		3
		16
	Spring	
Math 320		3
Math 260		3
Physics 302		4
Computer Science		3
Technical or Humanities Elective		3
Professional Ethics		1

* Elective courses within the Physics Department may include Fluid Mechanics, Thermodynamics, Introduction to Electricity and Electronics, Materials Science, Solid State Physics, and Electricity and Magnetism.

103, 104. Elementary Physics [4-3-3]

Taught both semesters.

A survey of classical and modern physics with discussions of their implications to society. Analysis of problems in mechanics, heat, sound, electromagnetism, and modern physics. Influence of physics on art, literature, and values. Satisfies distribution requirements in the field of science.

121-122. Introduction to Engineering and Technology [2-2-0]

Co-requisite: Math 130 or equivalent.

An introduction to the methods of modeling, analysis, and design in the solution of simple problems from the major disciplines of engineering. A consideration of the impact of engineering artifacts on society. The application of the computer language BASIC and the use of library programs in other computer languages in the solution of engineering models.

201-202. General Physics [4-3-3]

Prerequisite: Mathematics 140 (may be co-



requisite with permission of the instructor. Taught both semesters.
A presentation of the major concepts of physics from a contemporary point of view, using vector algebra and calculus. For students in the physical and life sciences, mathematics, or engineering. Topics covered include mechanics, heat, sound, electromagnetism, and optics.

299. Independent Study in Physics, I
[Maximum credit: 3 hours]

Prerequisite: Enrollment in a college science course and the approval of the department.
An opportunity for reading and research on topics in physics under the direction of a faculty adviser.

301. Classical Mechanics I: Statics and Dynamics [4-3-3]

Prerequisite: Mathematics 240. Physics 201-202 is desirable, but not mandatory. Taught fall semester.
A vector space approach to the study of classical mechanics in the Newtonian, Lagrangian, and Hamiltonian formulations. Extensive applications to problems in biophysics, space science, engineering, and transportation. Laboratory emphasis on the computer solution of these problems.

302. Classical Mechanics II: Mechanics of Solids [4-3-3]

Prerequisite: Mathematics 240. Mathematics 250 and Physics 201 are desirable, but can be waived with consent of instructor. Taught spring semester.
The continuum mechanics and thermodynamics of elastic solids presented in terms of vectors, tensors, and linear transformations. Applications in biophysics and engineering. Laboratory emphasizes experimental stress analysis (strain gages, photoelasticity, Moire fringes) and computer solutions.

304. Electromagnetism [4-3-3]

Prerequisite: Mathematics 240. Mathematics 250 and Physics 201-202 are desirable but can be waived with consent of instructor.
The electrostatics and electrodynamics of lumped and continuous systems presented

in terms of vectors and tensors. Electrostatics, magnetostatics, solutions of Maxwell's equations, AC circuits, relativistic electrodynamics, reflection and refraction. Laboratory stresses computer solutions and experimental analyses of electromagnetic phenomena.

321. Transportation Technology [3-3-0]

Prerequisites: Math 125, Computer Science 220.
This course will provide an introduction to the technological aspects of transportation and logistics. It begins with a survey of various modes of transporting material, emphasizing new and developing methods. It will discuss in detail the physical characteristics - load, energy and power requirements, aerodynamic effects, propulsion efficiency, packaging - of various modes. Models of traffic movement will be described and problems of control and distribution of traffic examined. Finally, generalized models, developing integrated transportation systems, will be introduced.

322. Exploration of the Universe: Astronomy [2-3-0 or 3-3-0 by contract]

Prerequisite: Junior standing or consent of instructor. Taught spring semester.
A survey of the history and methods of astronomy, including the solar system, planetary motion, stellar evolution, theories of cosmology, and such recent developments as quasars, pulsars, and black holes. A 16 inch telescope, a radio telescope, and a planetarium are available.

351. Modern Physics I: Atomic Physics [3-3-0]

Prerequisite: Physics 201-202 or consent of instructor. Taught fall semester.
A survey of the developments in atomic physics. An introduction to quantum mechanics and its application to current technology such as health sciences and atomic and molecular chemistry.

352. Modern Physics II: Solid State Physics [3-3-0]

Prerequisite: Physics 201-202 or consent of instructor.
A survey of the developments in solid state physics: crystal structure, thermal, me-

chanical and electromagnetic properties of materials. Applications to semi-conductors, lasers and masers, superconductors, and material science.

395. Topics in Physics

Prerequisite: Junior standing or consent of instructor. Taught both semesters.
Topics of special interest to both science and non-science majors in the areas of solar energy, technology assessment, science and questions of values, methods of teaching physical science, physics and photography, physics and art. Check the current list of courses each semester to determine when a course will be offered. Credits will vary.

402. Quantum Mechanics [3-3-0]

Prerequisite: Physics 201-202, Mathematics 240. Taught spring semester.
Review of the crucial ideas and experiments leading to the development of quantum theory. Axiomatic formulation of the theory with applications to simple systems.

499. Independent Study in Physics, II

Prerequisite: Junior standing and approval of the department.
Independent study of topics in physics under the direction of a faculty adviser.

Political Science and Governmental Administration

Associate Professors: Killam, Moore, Williams, Winter (Chairman)
Assistant Professor: Doane
Instructor: Miller

The objectives of the Department of Political Science and Governmental Administration are reflected in the purposes of the two degree programs administered by the Department. Through the Bachelor of Arts program in Political Science, the Department assists students in developing their ability to maximize their personal goals within the political and social environment, enables students to identify and classify types of political behavior and to evaluate the consequences of that behavior for civilization, and encourages qualified students to pursue graduate study in related fields of study.

Through the Bachelor of Science program



in Governmental Administration, the Department offers a multidisciplinary approach to the study of governmental administration in its social, psychological, economic, political, and physical contexts; prepares students for careers in the public service in such special areas as public management, community planning, law enforcement, and corrections; equips students with analytical and quantitative skills necessary for careers in the observation and measurement of the community environment; encourages students to identify and to appreciate values related to the formulation and implementation of public policy; and encourages qualified students to pursue graduate professional studies in public administration, urban planning, criminal justice administration, and law.

To earn a degree with a major in political science, students are required to take a

minimum of thirty credit hours in Political Science, including the following courses: Political Science 101, 102, and either Political Science 491 or 499. The remaining courses should be selected in consultation with the student's adviser.

For a minor in Political Science, a minimum of eighteen credit hours is required, including Political Science 101 or 102.

The inter-disciplinary Bachelor of Science in Governmental Administration degree includes four professional specialties, one of which must be completed by the student who seeks the BSGA degree. The student may choose either Urban Management, Community Planning, Criminal Justice Administration, or Corrections. For further information on this degree program, see "Bachelor of Science in Governmental Administration."

Course	Hours
Freshman Year	
English Composition	6
Mathematics or Philosophy	6
Political Science	6
Natural Science	8
Physical Education	4

	30
Sophomore Year	
Humanities or Foreign Language	6-12
Economics	6
Political Science	12
Sociology or Psychology	6

	30-36
Junior Year	
Political Science	12
Electives	20

	32
Senior Year	
Political Science	12
Electives	14-20

B.A. in Political Science With Secondary Teaching Certificate

Course	Hours
Freshman Year	
English Composition	6
Mathematics	6
Political Science	6
Natural Science	8

Physical Education	4
	30
Sophomore Year	
Humanities	6
Economics	6
Education 341	3
Psychology 201	3
Political Science	12
History	3
	33
Junior Year	
Speech 201	3
Geography	6
Psychology 307, 312	6
Education 303	3
Political Science	9
Electives	3
	30
Senior Year	
Education	12
Physical Education 321	3
Political Science	9
Electives	7
	31

101. Understanding Public Affairs I: Public Issues and Controversies [3-3-0]

Taught both semesters.
An examination of major domestic and foreign issues, such as urban problems, the role of bureaucracy in contemporary American society, oil crises, detente, hunger and economic development. Emphasis is placed on the influence of ideologies on American views of public issues and controversies.

102. Understanding Public Affairs II: The American Political Process [3-3-0]

Taught both semesters.
Examination of how issues are resolved within the American Political system. Consideration is given to American political institutions, such as the Presidency, Congress, Judiciary, political parties, interest groups, state and local governments.

201. Comparative Politics [3-3-0]

Taught both semesters.
A comparative study of selected Western and non-Western countries in terms of their structural and functional characteristics, the interaction of political systems in their environment, and their responses to the

pressures of change.

221. State and Local Government [3-3-0]

Taught spring semester.
A survey of the structure, functions, and issues of state and local governments in the United States, such as problems of distribution of power within the federal system. Includes an examination of revenue sharing, systems of power within and between state and local governments, and problems and programs of local governments.

302. Public Finance [3-3-0]

Prerequisite: Economics 201-202. Same as Economics 302. Taught spring semester.
The nature and application of the fundamental principles which apply to the obtaining, managing, and disbursing of the funds necessary for the performance of governmental functions at the local, state, and federal levels. The American tax system is given detailed consideration.

321. International Relations [3-3-0]

Taught spring semester.
Fundamental elements of international politics and an examination of the structure of the international system. Includes the role of the state as a political actor, their inter-relationships with one another and the major problems of the contemporary period.

331. Introduction to Community Planning [3-3-0]

Taught both semesters.
Examines the general nature of community planning and its development in the United States, including a survey of the problems with which planning seeks to cope.

334. Theory of Planning [2-2-0]

Prerequisite: Political Science 331. Taught spring semester.
An examination of theories of the planning process - both technical and political - and the policy implications of alternate theories. Substantial use is made of case studies in order to reveal the practical uses of the theories.

335. Site Planning and Design I [3-3-0]

Taught both semesters.

An accelerated introduction to some major topics and skills of site planning and plan presentation. Includes isometric and perspective drawing, introduction to topography and grading, principles and practice in esthetic design of sites.

336. Site Planning and Design II [3-3-0]

Prerequisite: Political Science 335. Taught spring semester.
Exercises in and analysis of large scale site planning. For students in the planning programs the major projects will concern apartment developments and residential subdivisions. For those in the program in Parks, Open Space, Recreation and Natural Resource Management the major project will be a park design. Other students may choose either of the two project groupings.

337. Techniques of Community Planning [4-3-0]

Prerequisite: Political Science 331 or consent of instructor. Taught spring semester.
Thorough survey of several planning techniques for the preparation of such preliminary studies as population analysis and land studies, and for the planning and programming of land use and public facilities. Exercises in the use of sources and techniques. Computer applications in planning.

342. Crime Control and Community Relations [3-3-0]

Prerequisite: Political Science 101 or 102 or consent of instructor. Taught fall semester.
Examines the factors which bear on community support of public agencies responsible for crime control and the correction of offenders. The roles of the police administrator, prosecutor, judge and corrections administrator are treated as well as the effects of civil rights and anti-war movements and instances of civil disobedience.

346. Politics and Criminal Justice Administration [3-3-0]

Prerequisite: Political Science 101 and 102 or consent of instructor. Taught spring semester.
Analysis of the major issues related to the criminal justice process: law enforcement

versus order maintenance; local control of law enforcement; limits of the criminal sanction; control of organized crime; the legitimacy of public protest; administrative efficiency versus the rule of law; selective enforcement and prosecution; plea bargaining; the symbolic nature of the criminal trial; capital punishment, community-based corrections; and employment of ex-offenders.

352. Quantitative Techniques in Political Analysis [3-3-0]

Taught fall semester.

Fundamentals of statistical techniques used in the analysis of political, administrative and community behavior. Includes an examination of descriptive and inferential statistics, hypotheses testing and correlation. Introduction to the construction, delivery, and analysis of surveys.

357. Theories of Democracy [3-3-0]

Prerequisite: Consent of instructor.

A survey of various contemporary positions concerning the nature of democratic government. Particular emphasis will be placed on revisions of the democratic ideal and challenges to those revisions. Concepts to be considered include elite competition, oligarchy, polyarchal democracy, pluralism, apathy, participation, party systems, political stability, and the effect of technological change on representative institutions.

358. Political Thought and Criticism [3-3-0]

Taught fall semester.

A critical analysis of the central and pervasive issues of normative political theory with the view of clarifying such concepts as natural law, the state, freedom, social contract, equality, and the nature of history in the political philosophy of representative thinkers of the pre-contemporary period.

359. Recent Political Ideas and Values [3-3-0]

Taught spring semester.

An analysis of such contemporary ideologies as Capitalism, Liberalism, Democratic Socialism, Marxism, Fascism, Conservatism, and Nationalism in relation to their significance for contemporary political

movements and policies.

361. Public Policy Analysis [3-3-0]

Taught both semesters.

An examination of various conceptual frameworks within which policy analysis can be located, the selection and measurement of relevant variables in policy analysis, a treatment of research designs appropriate for organizing research problems into a coherent set of testable propositions, and a review and application of survey research techniques.

363. Law and Public Policy [3-3-0]

Taught spring semester.

A treatment of civil, political and individual rights as they relate to such policy areas as income maintenance, housing, equal employment opportunity, consumer protection, and environmental protection.

365. Civil Liberties Policy [3-3-0]

Taught fall semester.

An examination of the emergence, development, and implementation of civil liberties in the United States in terms of constitutional interpretation and the political tensions of a competitive society.

371. Public Administration [3-3-0]

Taught fall semester.

Survey of administration in the public sector; administrative behavior; politics and administration; personnel and budgetary processes; administrative responsibility; contemporary issues.

381. Public Personnel Administration [3-3-0]

Prerequisite: Political Science 371 or consent of instructor. Taught fall semester. Principles of personnel administration and their development and functions in the public service; compensation, staffing, development, and separation.

391. Governmental Budgeting [3-3-0]

Prerequisite: Political Science 371 or consent of instructor. Taught spring semester. Basic concepts, principles, and practices in governmental budgeting; the interrelation of planning, programming, and budgeting; contemporary issues in budgeting in the

public sector.

395. Elementary Topics in Political Science [3-3-0]

Prerequisite: Junior standing or consent of instructor. Taught both semesters.

An examination of problems, issues, practices or recent developments in Political Science and Governmental Administration. A maximum of nine credits may be counted toward a degree.

401. Public Management [3-3-0]

Prerequisite: Political Science 371 or consent of instructor. Taught spring semester. An examination of perspectives, problems, and processes of the executive function of managing agencies and organizations in the public sector; structural design; human factors in organizations; elements of decision-making; leadership and communication; the role of the modern city manager; the main lines of organizational theory.

406. Trial Court Administration [3-3-0]

Prerequisite: Political Science 100 or consent of instructor. Taught spring semester. A consideration of judicial responsibility for management and the duties of the trained court executive, including budget execution, management of physical court facilities, information service, intergovernmental relations.

414. Case Studies and Decision-Making Simulations in Organizations [3-3-0]

Prerequisite: Junior or Senior standing. Students will analyze cases describing complex problems of human and group interactions in organizations. Students will interact for decision-making in two computer simulated games and Sim-Soc (a simulated society). Students will receive reactions of the effects of their decisions. The only grades given will be Pass/Fail.

440. Planning Law and Administration [3-3-0]

Prerequisite: Political Science 331 or consent of instructor. Taught fall semester. Investigation of the range of legal tools for land use planning and of the various political and administrative levels of planning. Includes a brief consideration of

types of planning administration. Special attention is given to zoning as a land use control.

442. Planning of Open Space and Recreation Areas [3-3-0]

Prerequisite: Physical Education 190, or Biology 306, or Political Science 331, or consent of instructor. Taught fall semester, alternate years.

Principles of planning for open space and recreation areas. The course examines the principles employed in serving suburban and rural populations and those emerging principles proposed for serving inner city populations. It includes the identification of goals, needs and resources; the standards of space and location design; and the laws and financing methods available for plan implementation. Attention is given also to the range of public administrative agencies responsible for recreation area planning. The course concludes with some discussion of site design.

451. Urban Government and Politics [3-3-0]

Taught fall semester.

Examination of modern urban governments, including urban reform movements, community control, regionalism, city-suburban conflicts, super-cities, major urban problems, and the future of urban areas.

461. The Politics of Urban Planning [3-3-0]

Taught spring semester.

The emergence of urban planning, its theoretical base; analysis of the planning process as a part of the urban political milieu; the range and form of urban planning, including pollution control, new towns, comprehensive planning and advocacy planning, and the problems and potential of planning in democratic political systems.

468. Criminal Justice Planning [3-3-0]

Prerequisite: Political Science 346 or consent of instructor.

Analysis of the impact of federal aid to state and local criminal justice agencies and the responses of the American states and localities to this aid. Focus is on the systems approach to planning in accordance

with state and federal procedures and guidelines. Program evaluation is dealt with.

490. Senior Seminar in Political Science [3-3-0]

Prerequisite: Senior standing; Departmental Major. Taught each spring semester. A seminar course in which each student is expected to master research skills, present a formal paper, and participate in the discussion and analysis of presentations by other members of the seminar.

491. Practicum in Governmental Administration [3-3-0]

Prerequisite: Senior standing or consent of instructor. Taught both semesters. Part-time internship with a governmental agency in law enforcement, corrections, planning, or general administration. Periodic conferences, written evaluations, and research project. A maximum of six credits may be counted toward a degree.

495. Advanced Topics in Political Science [3-3-0]

Prerequisite: Senior standing or consent of instructor. Taught both semesters. An examination at an advanced level of problems, issues, practices or recent developments in Political Science and Governmental Administration. A maximum of nine credits may be counted toward a degree.

499. Independent Studies in Political Science [3-3-0]

Prerequisite: Senior standing or consent of instructor. Taught both semesters. Individual study on an approved project with discussion and critique on methods of research. A formal paper is required.

Psychology

Professor: Squires

Associate Professors: Bauer, Herrmann, Holberg, Wildblood (Chairman), Windsor
Assistant Professors: Doerries, Dooley, Lopater, Slocumb, Tseng

The aims of the psychology program are to enable students to learn facts, principles, theories, and methods in psychology and how to apply this knowledge usefully and responsibly. The department is organized so that the major student may survey the entire field of psychology and learn to use the tools of psychological research.

Some students majoring in psychology will go on to graduate study; others will find opportunities to work in other areas such as personnel, as case workers in welfare departments, as probation officers, as teachers in the areas of early childhood education, or in special education. To satisfy the general requirements for the B.S. and B.A. degrees, all psychology majors will be asked to complete at least thirty-six credits in psychology.

Included among these hours, the student must have the following:

Psychology 201, *Principles of Psychology*

Psychology 321, *Statistical Applications in Social Science Research*

Psychology 301-302, *Experimental Psychology*

and two enrollments in Psychology 490, *Senior Seminar*.

Of the remaining hours, twelve must be at the 300 or 400 level, including at least six hours in 400-level courses.

Special requirements for the B.S. degree include one additional semester course in a laboratory science in the student's field of interest beyond the requirements already listed for the B.S. degree in the section of Distribution Requirements. Psychology 404, *Physiological Psychology*, will fulfill this special requirement.

A minor in psychology requires eighteen hours including Psychology 201, one senior seminar taken in the senior year, and one 400-level course. Psychology 321, *Statistics*, is recommended.

Options for Psychology Majors

1. With the increased emphasis on para-professional training in the field of mental health, the Psychology Department has instituted a concentration for students interested in becoming psychological technicians. In addition to the requirements for the major, the core courses required for the concentration are:

Psychology 304, *Social Psychology*

Psychology 307, *Developmental Psychology*

Psychology 316, *Principles of Interviewing*

Psychology 410, *Introduction to Tests and Measurement*

Psychology 440, *Group Processes*

Psychology 491, *Field Placement*

Recommended courses include the following:

Sociology 220, *Social Problems*

Sociology 225, *Racial and Cultural Minorities*

Sociology 322, *Sociology of Crime*

Sociology 324, *Sociology of Juvenile Delinquency*

It is recommended that Psychology 303, *Industrial & Organizational Psychology*, be included among the elective courses.

2. An interdisciplinary effort by the Education and Psychology departments permits an additional group of courses to be offered in the field of learning disabilities. The concentration will permit teachers to be endorsed to teach learning-disabled children. The student must consult both departments in order to be sure of meeting certification requirements. Courses offered in psychology are:

Psychology 408, *Psychology of the Exceptional Child--the Learning Disabled and Emotionally Disturbed* (three hours with one hour optional lab);

Psychology 415, *Psycho-Educational Diagnosis for Teachers*;

Psychology 417, *Behavioral Management of the Exceptional Child*

3. For students planning to attend graduate school, the Department considers Psychology 305, *Learning*, and Psychology 401, *History*, as necessary courses in the student's preparation. In addition, it is recommended that at least two of the following courses be taken:

Psychology 400, *Advanced General Psychology*

Psychology 404, *Physiological Psychology*

Psychology 405, *Psychology of Motivation*

Psychology 406, *Psychology of Sensation and Perception*

4. Psychology majors who elect to earn certification in Social Welfare should refer to the description of the program by the Sociology Department. The student must coordinate his or her program with the Social Welfare adviser in that department as well as with the major adviser.

It should be pointed out that, with the increasing demands for certification in Social Work, a combination of a Psychology major and Social Work certification is an extremely rigorous and demanding program. Careful coordination with both advisers must be exercised.

5. A major who wishes to develop a specialty in Criminal Justice (Corrections) should coordinate his or her program with the Criminal Justice program director in the Political Science Department as well as with the major adviser. Refer to the description of the program in the Political Science Department listings.

Sample Program for Psychology Majors [B.A.]

Course	Hours
Freshman Year	
English 101-102 or 103-104	6
Foreign Language	8
Lab. Science (Bio. or Chem. recommended)	8
Math	4-6
Physical Education	4
	30-32
Sophomore Year	
Foreign Language	6
Humanities	6
Psychology 201-202	6
Psychology 321	3
Social Science (Sociology recommended)	6
Electives	3
	30
Junior Year	
Psychology 301-302	8
Psychology Electives	3



Electives	18-20
Psychology 305	3
	32-34
Senior Year	
Psychology 490	6
Psychology Electives	6
Electives	17
Psychology 401	3
	30
Sample Program for Psychology Majors [B.S.]	
Course	Hours
Freshman Year	
English 101-102	6
Foreign Language	8
Laboratory Science (Biology or Chemistry recommended)	8-10
Math	4-6
Physical Education	4
	30-34
Sophomore Year	
Foreign Language	6
Humanities	6
Psychology 201-202	6
Psychology 231	3
Social Science (Sociology recommended)	3
Electives	3
	30
Junior Year	
Psychology 301-302	8
Psychology Electives	3
Electives	10-12
Laboratory Science	8
Psychology 305	3
	32-34
Senior Year	
Psychology 490, 490	6
Psychology Electives	6
Electives	12
Fifth Semester of Lab Science	4
Psychology 401	3
	31

Basic principles of behavior according to the categories of general psychology: motivation, learning, maturation, emotion, thinking, perception, intelligence, and the organization of personality.

295. Topics in Contemporary Psychology

Prerequisite: Psychology 201.

This course will offer topics of special interest in areas of contemporary psychology. These topics may be suggested by students or by faculty. Only one 295 may be offered toward a degree in Psychology.

301-302. Experimental Psychology [4-5-4]

Prerequisite: Psychology 201 and 231.

A comprehensive study of the scientific method and different approaches to behavioral research. Collateral readings and experiments, emphasizing experimental analysis of behavior principles, will be assigned. Each student is responsible for designing and conducting research under the direction of the instructor. Use of standard psychological methods of reporting scientific research will be emphasized.

303. Industrial and Organizational Psychology [3-3-0]

Prerequisite: 201.

A survey of how the psychologist functions in areas of recruitment, selection training, placement, evaluation, management, supervision, human relations, and human engineering, as well as the knowledge and methods currently available related to human behavior in organizational settings.

304. Social Psychology [3-3-0]

Prerequisite: Psychology 201.

A study of the individual in group situations and the interaction of the individual and his environment in a great variety of circumstances. Emphasis on psychology of prejudice, attitudes, and groups.

305. Psychology of Learning [3-3-0]

Prerequisite: Psychology 201.

A study of the principles of human and animal learning, retention, and problem-solving with consideration also given to methods of investigation and recent theories of learning.

307. Developmental Psychology [3-3-0]

Prerequisite: Psychology 201.

A study of data and theory concerning the development of the individual through the life span, including mental, physical, and emotional processes. Students may take only two of the following four courses for credit: 307, 308, 309, and 311.

308. Child Psychology [3-3-0]

Prerequisite: Psychology 201.

The biological, social, and emotional factors influencing the normal growth and development of the child from birth to adolescence. Students may take only two of the following four courses for credit: 307, 308, 309, and 311.

309. Psychology of Adolescence [3-3-0]

Prerequisite: Psychology 201.

The development of the child from pre-adolescence through adulthood, presenting theories of adolescence in light of experimental data. Students may take only two of the following four courses for credit: 307, 308, 309, and 311.

311. Psychology of Early Childhood [3-3-0]

Prerequisite: Psychology 201.

General principles of early childhood development; factors influencing pre-natal development of motor abilities, emotion, intelligence, and social interaction; covers changes in behavior that occur between conception and entrance to school. Students may take only two of the following four courses for credit: 307, 308, 309, and 311.

312. Educational Psychology [3-3-0]

Prerequisite: Psychology 201. Same as Education 201.

The application of psychological facts, principles, and methods to learning in the classroom, including skill development in evaluation of student performance as an aid to learning and teaching.

313. Human Relations in Organizations [3-3-0]

Prerequisite: Psychology 201.

A survey of the basic facts, principles, theories, techniques, and methods current-

ly available about the behavior of people in organizations. Motivation and communications are particularly emphasized. The major course objectives involve providing opportunities to apply facts, principles, and theories; to develop skills in current techniques and their applications to reaching organizational objectives; and to develop more awareness of the effects of our behavior on others and the effects of the behavior of others on ourselves. May only be taken as pass/fail.

314. Introduction to Personality [3-3-0]

Prerequisite: Psychology 201.

Individual differences in personality dynamics and various interpretations of personality development.

316. Principles of Interviewing [3-3-0]

Prerequisite: Psychology 201, 306, 304, or 340.

Principles and methods of interviewing, observing, recording, summarizing, and communicating human reactions (both verbal and non-verbal communication). Use of techniques such as role play, behavioral techniques, and environmental change to assist the individual in his or her daily experiences.

321. Statistical Application in Social Science Research [3-3-0]

Prerequisite: A minimum of three hours of college mathematics and Psychology 201. Descriptive and inferential statistics, including a brief introduction to probability theory, parametric tests, correlation, analysis of variance, and the use of distribution free measures. The number of laboratory hours will be announced.

395. Elementary Topics [3-3-0]

Prerequisite: Psychology 201.

This course will present from time to time topics of special interest to the students and faculty of the department. Students who are interested in having a topics course in a certain area should make their suggestion to the Department Chairman. Students should also check the current list of courses taught to determine what topics will be offered in any given semester. Only one

Elementary Topics course may be offered toward a degree in psychology.

400. Advanced General Psychology [3-3-0]
Prerequisite: Psychology 201, completion of all required 300-level courses, and senior standing.

A detailed presentation of the major areas of psychology, emphasizing principles and theories. Critical issues are identified and discussed. The purpose of the course is to provide senior majors with a systematic review of the discipline prior to entering graduate school or taking qualifying examinations. The course content is primarily determined in accordance with professional criteria at the national level and thus provides the student with a standard against which he may judge his performance and knowledge.

401. History of Psychology [3-3-0]
Prerequisite: Psychology 201 and completion of required 300-level courses.
A survey from Aristotle to the present with special emphasis on the nineteenth and twentieth centuries.

403. Abnormal Psychology [3-3-0]
Prerequisite: Psychology 201 and Psychology 307 and completion of all required 300-level courses.
A survey of behavior pathology emphasizing the neuroses and the functional psychoses and their relationship to current conceptions of normal personality functioning.

404. Physiological Psychology [4-3-4]
Prerequisite: Psychology 201 and completion of all required 300-level courses.
A critical analysis of the physiological mechanisms controlling behavior. Lecture topics include neuroanatomy, the biochemical bases of behavior, homeostatic control mechanisms, emotion, and the neurophysiology of learning. The laboratory work centers around the techniques of brain stimulation, ablation, and electrical recording.

405. Psychology of Motivation [3-3-0]
Prerequisite: Psychology 201 and comple-

tion of all required 300-level courses.
A study of the energizing factors in behavior, including such concepts as instincts, drives, homeostatically regulated systems, the emotions, stress, anxiety, and aggression. Both theoretical and experimental arguments are considered.

406. Psychology of Sensation and Perception [3-3-0]
Prerequisite: Psychology 201 and completion of all required 300-level courses.
Sensory and perceptual processes presented in the framework of both theoretical and experimental issues.

407, 408. Psychology of the Exceptional Child [3-3-0]
Prerequisite: Psychology 201 and 307 (or its equivalent).
The psychological development of children with physical, emotional, educational, social and intellectual deviation, and communication problems. During the first semester, emphasis will be on psychological aspects of giftedness, physical disability, and mental retardation. During the second semester, learning disabilities and the problem of the emotionally disturbed child will be stressed. The laboratory section is optional.

407A, 408A. Psychology of the Exceptional Child
The laboratory experience enables the student to gain practical knowledge in the real-life experience, either in a school, home, or recreational setting. Placement will be made in community agencies working with exceptional children. This laboratory section is optional.

410. Introduction to Tests and Measurements [4-3-2]
Prerequisite: Psychology 201 and 321.
Theory and history of the most widely used tests of achievement, personality, and intelligence. Practice in test construction and interpretation will be part of the class experience.

415. Psycho-Educational Diagnosis for Teachers [3-3-0]

Prerequisite: Psychology 201, 306, 408, and teacher certification or majors in education seeking a second endorsement.
This course is designed to help teachers to develop skills of informal diagnostic evaluation which can be used in the classroom to individualize instruction and to design classroom programs for the individual student.

417. Behavioral Management of the Exceptional Child [3-3-0]
Prerequisite: Psychology 201 and 408.
A comprehensive presentation of innovative behavioral treatment techniques, instructive results of systematic research, and usable intervention strategies for individuals who work or plan to work with exceptional children.

420. Human Sexuality [3-3-0]
Prerequisite: Psychology 201 or consent of instructor.
Biological, psychological, and social aspects of human sexual behavior throughout the life span.

440. Group Processes [3-3-0]
Prerequisite: Psychology 201 and consent of instructor. Psychology 304 and 313 are recommended. This course is primarily for those who are in the Psychological Technician tract of the Psychology major. Others will be admitted on a space available basis. Personal and interpersonal learnings constitute the central objectives of this experience-based course. Theoretical information will be presented by the major approach used in a modified human relations laboratory. This method relies heavily upon the involvement of each member of the group in the learning process. Since the purpose of this class is to allow the potential mental health worker to understand how he/she affects and is affected by others, the primary content of the course is the ideas, concerns, and feelings of each member. May only be taken as pass/fail.

490. Senior Seminar [3-3-0]
Prerequisite: Psychology 201 and completion of all required 300-level courses.

Topical seminars to cover a variety of areas. These seminars are limited to senior students. One seminar is required for a minor, two for a major.

495. Advanced Topics [3-3-0]
This course will present from time to time advanced topics of special interest to the students and faculty of the department. Interdepartmental topics courses will be offered under this course number. Students should suggest possible topics to the Department Chairman and should check the current list of courses offered to determine what topics will be offered in any given semester. This course does not count as one of the required 400-level courses, and a student may not count for credit more than two Advanced Topics courses toward graduation in psychology.

499. Research
Prerequisite: Senior Psychology majors.
Independent study which may consist of bibliographic or experimental research.

brain (brān), n. [ME. *brayn*, *brēin*, AF. *brayne*, *brayen*; akin to L. *brayn*, *brayne*, D. *brayn*, and prob. to Gr. *braynē*, the upper part of the head.] 1. In vertebrate animals, the large mass of nerve tissue enclosed in the skull or cranium, in which the anterior end of the spinal cord terminates.

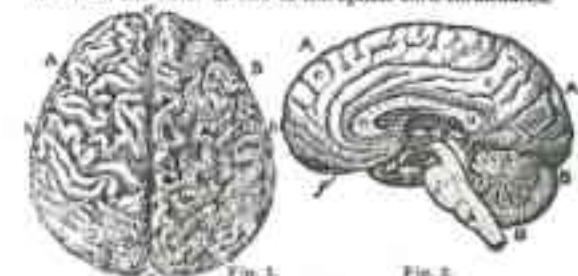


Fig. 1. Upper surface, showing Right and Left Cerebral Hemispheres, A, separated by the Longitudinal Fissure; B, Fissure of Sylvius; C, Cerebellum; D, Brainstem; E, Pons; F, Medulla Oblongata. Fig. 2. Right half, shown by vertical section through the Longitudinal Fissure; A, Cerebrum; B, Cerebellum; C, Corpus Callosum; D, Fornix; E, Corpus Callosum; F, Third Ventricle; G, Pineal Body; H, Optic Chiasm; I, Optic Nerve; J, Pons; K, Medulla Oblongata, which continues the brain with the spinal cord.

The brain consists of gray matter made up largely of

Sociology and Social Work

Associate Professor: Kernodle
Assistant Professors: C. Chang, Healey,
Durel (Chairman), Hill, Pellett
Instructors: Caviness, Morrison

The Department of Sociology and Social Work provides an educational program which integrates a theoretical orientation and its application with various social issues and community problems. Sociology students are encouraged to develop a broad background in the social and behavioral sciences in a liberal education setting. The Department seeks: to teach students to examine and analyze society and social institutions from a sociological perspective; to prepare students for effective community participation as citizens and/or professionals; to enable students to specialize by providing professional options; and to provide a background for those who wish further training at the graduate level.

Programs

The Department of Sociology and Social Work offers a curriculum leading to a B.A. in Sociology and/or a Certificate Concentration in Social Work.

The Sociology Major

The major in sociology requires thirty-three hours in sociology including twenty-four hours above the 200 level with at least 6 hours at the 400 level. Included in these courses must be: Sociology 200, *Introduction to Sociology*; Sociology 310, *Social Theory*; Sociology 391-392, *Methods and Tools of Social Research*; and either Sociology 490, *Senior Seminar* (Social Work 490, *Senior Seminar* may be substituted by the students in the Social Work Concentration) or Sociology 499, *Independent Research or Research Internship*.

The Sociology Minor

The minor in Sociology requires eighteen hours in Sociology (including: twelve hours above the 200 level with 3 hours at the 400 level). Included in these courses must be: Sociology 200, *Introduction to Sociology*; Sociology 310, *Social Theory*; and some proficiency with research methods or statistics. A student seeking a minor in Sociology must complete a form provided by the

Department of Sociology and Social Work. The Social Work Concentration

The Certificate Concentration in Social Work requires thirty-three hours in Sociology/Social Work and three hours in Political Science. Included in these courses must be: Social Work 300, *Introduction to Social Work*; Sociology/Social Work 367, *The Social Welfare Institution*; Sociology/Social Work 391-392, *Methods and Tools of Social Research*; Social Work 399-400, *Social Work Practice I - II*; Social Work 401-402, *Social Work Field Placement I - II*; Social Work 490, *Senior Seminar*; Social Work 405-406, *Human Behavior in the Social Environment*; and Political Science 363, *Law and Public Policy*. (Other courses emphasizing Social Policy may be substituted with the approval of the Director of Social Work).

A student majoring in Sociology or in another discipline can receive the Certificate in Social Work by meeting the certificate requirements. Students interested in fulfilling the requirements for the Social Work Concentration must submit an application to the Director of Social Work after the completion of Social Work 300, *Introduction to Social Work*.

Other Concentrations

The Department of Sociology and Social Work also offers two concentrations of courses for students majoring or minoring in Sociology: 1) Research and Program Evaluation and 2) Criminology. Upon completion of the requirements for a concentration, the proper notation will be made on the student's transcript.

The Research and Program Evaluation Concentration is designed for students interested in a career as a research assistant in social research and/or program evaluation in areas of health, mental health, social welfare, corrections and social planning. The requirements for this concentration include: Sociology 361, *Population and Society*; Sociology 391-392, *Methods and Tools of Social Research*; Sociology 461, *Social Indicators and Evaluation Research*;

Sociology 499, *Independent Research or Research Internship*; one of the following two courses: Sociology 331, *Urban Sociology* or Sociology/Social Work 404, *Community Organization*; and one of the following two courses: Political Science 391, *Governmental Budgeting* or Economics 351, *Urban Development Economics*. Additional courses in quantitative analysis and Computer Science are recommended.

The Criminology Concentration is designed for students interested in the general area of criminology, primarily from a general and theoretical perspective. The requirements for this concentration include: Sociology 321, *Sociology of Crime*; Sociology 324, *Juvenile Delinquency*; Sociology 411, *Sociology of Corrections*; one of the following three courses: Sociology 319, *Deviant Behavior*; Sociology 491, *Practicum in Sociology*, or Sociology 499, *Independent Research or Research Internship*; and one of the following two courses: Political Science 342, *Crime Control and Community Relations* or Political Science 346, *Politics of Criminal Justice Administration*. Additional courses in Political Science are recommended.

Sample Program for Sociology Major

Course	Hours
Freshman Year	
English 101-102	6
College Distribution Requirements (e.g., Natural Science, Social Science, Physical Education, Foreign Language)	18
Sociology 200	3
Electives	6
	33
Sophomore Year	
College Distribution Requirements (e.g., Social Science, Humanities*, Mathematics*, Foreign Language)	18
Sociology Electives	9
Electives	6
	33
Junior Year	
Sociology 310	3
Sociology 391-392	6
Sociology Electives	6
Social Science Electives	9

Other Electives	6
	30
Senior Year	
Sociology 490	3
Sociology Electives	9
Social Science Electives	9
Other Electives	9
	30

* Philosophy 201-202, Mathematics 125 are recommended

Sample Program for Social Work Concentration

Course	Hours
Freshman Year	
English 101-102	6
Biology 101-102	8
Psychology 201-202	6
Physical Education Distribution Electives	4
	9
	33
Sophomore Year	
Sociology 200 plus another 200 level course	6
Humanities Distribution	6
Mathematics Distribution	6
Sociology/Social Work 300	3
Electives	9
	30
Junior Year	
Sociology/Social Work 367	3
Sociology/Social Work 391-392	6
Psychology 307	3
Sociology 304	3
Political Science 363	3
Social Work 399	3
Electives	12
	33
Senior Year	
Social Work 400	3
Social Work 401-402	8
Social Work 405-406	4
Social Work 490	3
Electives	12
	30

Sociology

200. *Introduction to Sociology* [3-3-0]
Taught both semesters.
An introduction to the study of human society, including concepts of culture, socialization, role and status, stratification,

social organization, institutions, and social change.

210. Social Organization [3-3-0]

Prerequisite: Sociology 200. Taught spring semester.

An analysis of social organization at the various levels of group interaction, including small groups, social institutions, and bureaucracies. Course will include fundamental concepts, theories, and research as appropriate.

220. Social Problems [3-3-0]

Prerequisite: Sociology 200. Taught both semesters.

A survey of such social problems as race, crime, urban conditions, poverty, and social consequences of rapid technological change. The analytical perspective is sociological, stressing concepts and theories such as social pathology, value conflict, social disorganization, and deviant behavior.

225. Minorities in Society [3-3-0]

Prerequisite: Sociology 200. Taught spring semester.

A comprehensive analysis of a variety of minority groups including American Indians, women, Spanish-speaking and Asian minorities, European immigrants, homosexuals, and blacks. The course will concentrate on the problems of prejudice and discrimination, integration and conflict, and trends of change.

303. Marriage and the Family [3-3-0]

Prerequisite: Sociology 200. Taught fall semester.

Study of the American family structure in comparison with other selected cultures. Interrelation of the family institution to other parts of the social structure.

304. Socialization and Society [3-3-0]

Prerequisite: Sociology 200. Taught spring semester.

Emphasis will be on the generic process by which individuals become members of society. Consideration of the impact of family, sex, race, socio-economic class on socialization and personality. Will include cross-cultural comparisons.

305. The Sociology of Aging

Prerequisite: Sociology 200.

Aging as a social process and its relation to biological and psychological processes. Analysis of role loss, changing roles as a result of aging. Problems associated with the social aspects of aging. Social programs for the aging.

307. Sociology of Education [3-3-0]

Prerequisite: Sociology 200. Taught in alternate years.

A sociological analysis of education and educational systems in America. Major topics of study include an analysis of the purposes and functions of educational programs, the differential impact of social class, family, race, and residence on educational opportunity, the school as a bureaucratic organization, educational reform, and contemporary problems of higher education.

310. Social Theory [3-3-0]

Prerequisite or Co-requisite: Nine hours of sociology and junior or senior standing.

An examination of the development of sociological thought with a special emphasis on major classical and contemporary sociological theorists. Includes an analysis of the basic philosophical and sociological assumptions concerning man and society, their political and social implications, and the historical setting in which the sociologist is writing.

315. Medical Sociology

Prerequisite: Sociology 200.

The analysis of the socio-cultural context of disease and the health-care system. The course focuses upon the social and cultural aspects of disease etiology, illness behaviors, the formal and informal organization of the health professions and the system of health care delivery.

319. Deviant Behavior [3-3-0]

Prerequisite: Sociology 200. Taught fall semester.

An analysis of deviant behavior, including such areas as mental illness, suicide, alcohol and drug addiction, and sexual deviancy.

321. Sociology of Crime [3-3-0]

Prerequisite: Sociology 200. Taught fall semester.

A sociological examination of the nature and extent of crime with a critical examination and interpretation of official records of crime. Special emphasis on sociological theories of crime and criminal behavior.

324. Sociology of Juvenile Delinquency [3-3-0]

Prerequisite: Sociology 200.

A sociological examination of the nature and extent of juvenile delinquency with special emphasis on sociological theories of juvenile gangs and delinquent behavior. Some emphasis will be placed on juvenile courts and agencies. Includes field trips to appropriate agencies and institutions.

326. Black-White Relations [3-3-0]

Prerequisite: Sociology 200.

Institutional and demographic variations among black and white Americans examined in a context of ideological and structural change; consequences of racial prejudice and discrimination for black personality and social structure. Special attention will be devoted to the patterns of urbanization among black Americans.

331. Urban Sociology [3-3-0]

Prerequisite: Sociology 200. Taught fall semester.

An ecological and social analysis of the urban community. Topics include the classification of cities and urban sub-areas, urban life styles, and planned community change.

332. Industrial Sociology [3-3-0]

Prerequisite: Sociology 200.

A sociological study of industrialization with emphasis on industrial bureaucracy, major industrial work roles, the work group, and union-management relations.

361. Population and Society [3-3-0]

A study of population history and current findings concerning social factors affecting fertility, mortality, and migration and the effects of population change upon social relationships. Method of measurement and

basic techniques of analysis.

Soc./SW 367. The Social Welfare Institution [3-3-0]

Prerequisite: Sociology 200. Taught fall semester.

History, philosophy, and issues of the social welfare system. Study of the relationship of welfare to industrialization, urbanization, and to other institutions of the society.

Soc./SW 369. Child Welfare Services

Prerequisite: SW 300.

The analysis of the services and programs developed to deal with the problems of children, relative to dependency, neglect, and abuse. Focus is on the social and family problems which create a need for children's services and societal reactions to these needs. A study will also be made of the service network generally available in a community and the agencies which make up the network.

Soc./SW 391-392. Methods and Tools of Social Research [3-2-1] [3-2-1]

Prerequisite: Sociology 200. Taught both semesters.

391. Examination of the methodological problems of social research. Selection and definition of problems of investigation, research designs, data gathering techniques, and sampling.

392. Data-analysis techniques, including statistical analysis, measurement, scaling, multivariate analysis, and quantitative measures of association.

393. Social Science Statistics Lab [1-0-1]

Prerequisite: Junior or senior standing or consent of instructor. Taught each semester.

A statistics lab focused upon the use of computerized data processing through programs already developed. Laboratory includes instructions in setting up, using and interpreting such programs. Statistics used are descriptive statistics, cross tabulations, break-downs by variable classification, correlation coefficient, multiple regression, factor analysis and analysis of variance.

Soc./SW 395. Elementary Topics
Prerequisite: Sociology 200. Taught both semesters.
Topics will vary and may be interdisciplinary. Credits will vary.

Soc./SW 404. Community Organization [3-3-0]
Prerequisite: Sociology 200. Sociology 387 is recommended. Taught spring semester. The content of community organization and the processes of directing change therein. Course will emphasize interorganizational analysis, community problem solving, roles of professional change agents, and community-level social problems.

410. Sociology of Mental Disorders [3-3-0]
Prerequisite: Sociology 200, junior or senior status, six hours in sociology, and six hours in psychology.
An analysis of the socio-cultural factors related to mental illness and mental health, including definitions of illness and health, types, distribution with the social structure, and treatment modalities. Community psychiatry as a social movement will be examined as it relates to changing social values and definitions of illness and health.

411. Sociology of Corrections [3-3-0]
Prerequisite: Sociology 200, Sociology 321 and junior or senior status.
Sociological analysis of the social structure of agencies of control of crime, such as the police, the courts, prisons and other correctional institutions, and the probation and parole systems. Emphasis will be placed upon the interrelationship of the differential power of the various social classes and the differential application of criminal definitions and disposition of cases. Includes field trips to appropriate agencies and institutions.

413. Sociology of Religion [3-3-0]
Prerequisite: Nine hours of sociology and junior or senior status. Courses in Psychology and Philosophy are recommended.
A sociological analysis of religion as a social institution with emphasis on the interrela-

tionship between religion, society, and the individual. Topics covered include theoretical perspectives, empirical measurement of religiosity, and trends in secularization and religious pluralism.

414. Case Studies and Decision-Making Simulations in Organizations [3-3-0]
Prerequisite: Junior or senior standing.
Students will analyze cases describing complex problems of human and group interactions in organizations. Students will interact for decision-making in two computer simulated games and Sim-Soc (a simulated society). Students will receive feedback of the effects of their decisions. The only grade given will be pass/fail.

422. Sociology of Inequality [3-3-0]
Prerequisite or Co-requisite: Nine hours in sociology, junior or senior status.
The sociological analysis of inequality in the social structure and stratification systems of society. Emphasis is placed on the bases, dimensions, and consequences of stratification.

430. Social Movements [3-3-0]
Prerequisite: Nine hours of sociology and junior or senior standing. Taught fall semester.
A comprehensive survey of current sociological perspectives on the causes, structures, and careers of social movements. Special emphasis on contemporary theory, methodological problems, and data sources. Case studies of several major (and many minor) contemporary movements. Movements as responses to modernization.

461. Social Indicators and Evaluation Research [3-3-0]
Prerequisite: Sociology 391-392 and junior or senior standing.
The techniques and methods of "social reporting" and measuring social change and the "evaluation" of social action problems that effect change. The course focuses on the use of "social indicators" as guides to decision-making and on the conceptual, methodological, and administrative aspects of evaluation.

Soc./SW 490. Senior Seminar in Sociology or Social Work [3-3-0]
Prerequisite: Twelve hours in sociology, senior standing.
Topical seminars to cover a variety of areas.

491. Practicum in Sociology [3-3-0]
Prerequisite: Sociology 310, Sociology 391-392, and senior standing.
Part-time internship in appropriate agency/organization. Periodic conferences, written evaluations, and internship project. Students must apply for internship through the department chairman at least 30 days prior to the semester. Check departmental policy statement on additional standards and prerequisites.

492. Readings in Sociology [3-3-0]
Prerequisite: Twelve hours in sociology, senior status, and consent of instructor. Taught both semesters.
Extensive reading in a chosen subject under the direction of a staff member. Subject must be decided upon and permission of instructor secured before registration.

Soc./SW 495. Advanced Topics in Sociology [3-3-0]
Prerequisite: Nine hours in sociology, junior or senior status, or consent of instructor. Taught both semesters.
Topics will vary and may be interdisciplinary.

499. Independent Research or Research Internship [3-3-0]
Prerequisite: Sociology 391-392, senior status (Sociology 461 for Research Internship), and consent of instructor. Taught both semesters.
Independent Research allows the student to do a research project on a chosen subject under the direction of a staff member. The research topic must be decided upon and permission of staff member secured before registration. The Research Internship provides the student with the opportunity of doing research in an agency or program setting. Students interested in the internship must receive permission from the department chairman prior to registration.

Social Work

SW 300. Introduction to Social Work [2-2-0]
Prerequisite: Completion of six hours of Social Science or consent of instructor. Taught fall semester.
An examination of the profession of social work and the setting in which it is practiced. Emphasis will be on describing social work; describing social work practice; reviewing the types of agencies in which social workers practice.

Soc./SW 367. The Social Welfare Institution [3-3-0]
Prerequisite: Sociology 200. Taught fall semester.
History, philosophy, and issues of the social welfare system. Study of the relationship of welfare to industrialization, urbanization, and to the other institutions of the society.

Soc./SW 369. Child Welfare Services
Prerequisite: SW 200.
The analysis of the services and programs developed to deal with the problems of children relative to dependency, neglect, and abuse. Focus is on the social and family problems which create a need for children's services and societal reactions to these needs. A study will also be made of the service network generally available in a community and the agencies which make up the network.

Soc./SW 391-392. Methods and Tools of Social Research [3-3-1] [3-3-1]
Prerequisite: Sociology 200. Taught both semesters.
391. Examination of the methodological problems of social research. Selection and definition of problems of investigation, research designs, data gathering techniques, and sampling.
392. Data-analysis techniques, including statistical analysis, measurement, scaling, multivariate analysis, and quantitative measures of association.

Soc./SW 395. Elementary Topics
Prerequisite: Sociology 200. Taught both semesters.

Topics will vary and may be interdisciplinary. Credits will vary.

399/400. Social Work Practice

[3-3-0] [3-3-0]

Prerequisite: Sociology 200; Sociology 367 is recommended. Taught both semesters. 399. Develops beginning professional skills. Objectives include the understanding of self in a helping role; understanding the helping process; skill in interviewing; skill in preparing social studies; the development of assessment skills; listening skills; case conference participation; developing professional values; and understanding the concept of agency. 400. Develops professional skills in assessment and treatment using the problem-solving process. Continues to emphasize the development of self-understanding, professional values, and skills in working with people.

401-402. Field Placement I and II

[3-3-0] [3-3-0]

Prerequisite: Sociology 200, Social Work 399, and consent of instructor. Taught both semesters.

Field experience with directed engagement in social work activities. Student may choose from a variety of settings in which social work modalities are applied to solve problems. Placement may be for a single block or may be spread through two semesters. Students must apply for field work at least thirty days before they expect to register for the course. The application consists of submitting a biographical statement and a statement of objectives to the Director of Social Work and arranging for an interview with the Director of Social Work. Check departmental policy statement on additional standards and prerequisites.

Soc./SW 404. Community Organization

Course includes review of underlying sociological concepts regarding the community, ideal typical models and strategies for community organization practice, techniques for assessing problems, examining resource base and implementing appropriate interventive programs at the community level.

405-406. Human Behavior in the Social Environment I and II

Prerequisite: SW 399.

A two semester sequence course designed to help the social work student build upon the theoretical knowledge gained from the applied and social sciences a technological base for social work. Behavior, as a dynamic process involving a person's interaction with his environment during life experiences, is studied. A holistic framework will be used presenting human behavior as an adaptive process for dealing with one's environment.

Soc./SW 490. Senior Seminar in Sociology or Social Work [3-3-0]

Prerequisite: Twelve hours in sociology, senior status. Taught both semesters. Topical seminars to cover a variety of areas.

Soc./SW 495. Advanced Topics in Sociology [3-3-0]

Prerequisite: Nine hours in sociology, junior or senior standing, or consent of instructor. Taught both semesters. Topics will vary and may be interdisciplinary.



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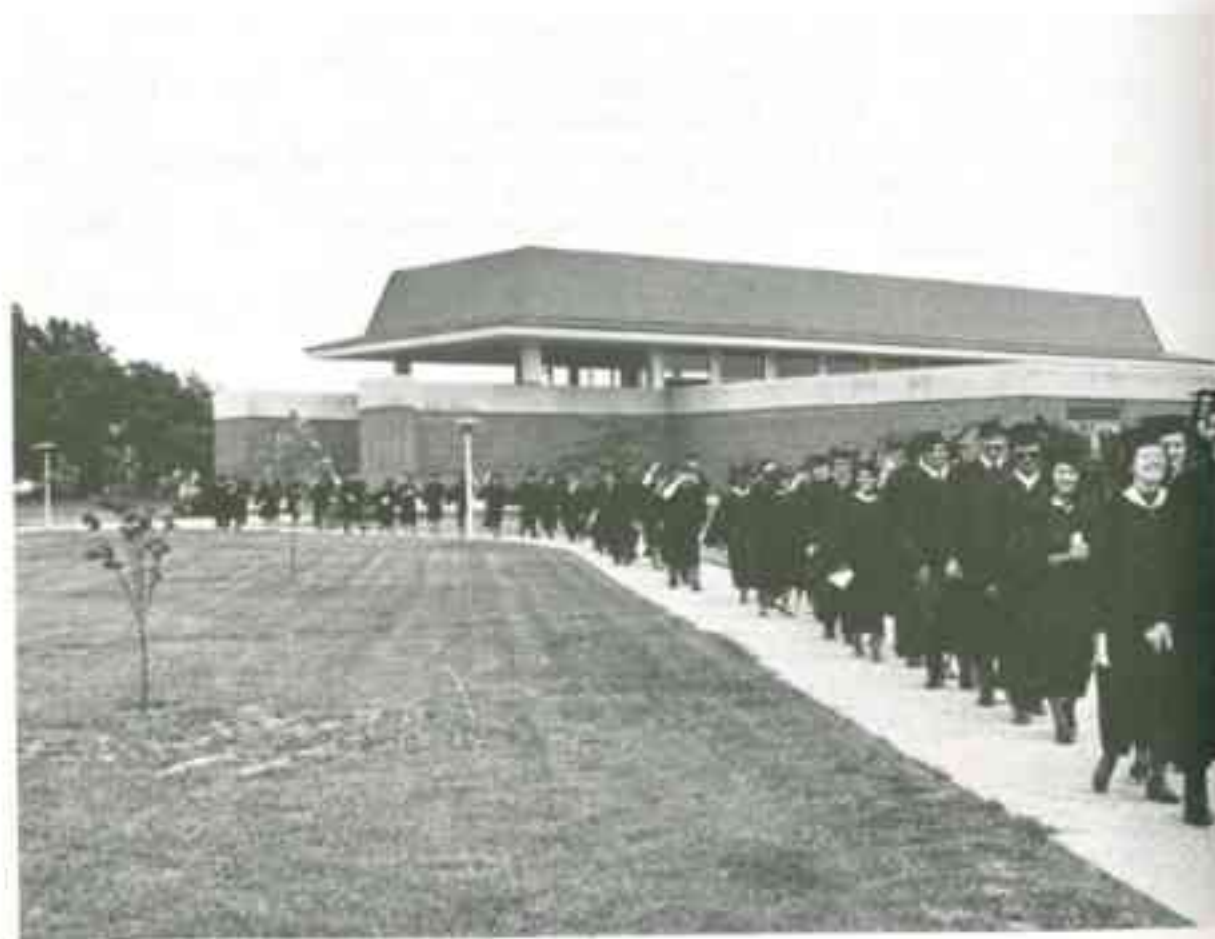
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LATE NEWS

1. *P.E. Credit for Veterans* - Any veteran with 180 or more consecutive days of active duty in the U.S. Armed Forces will receive four hours of physical education activities credit toward his/her degree, thereby fulfilling the College's P.E. requirements.
2. *Senior Citizens Act Revised* - Any citizen 60 years of age or older is eligible for free tuition at any Virginia Public College, regardless of income.
3. *Nursing Program Revisions Considered* - Old Dominion University is considering revising the CNC/ODU affiliated Nursing Program described on page 48 of this catalog. For further information contact the CNC Admissions Office.
4. *National Guard Tuition Aid* - Any member of the Virginia National Guard may attend any Virginia public college with a 50% reduction in the cost of tuition.
5. *Associate Arts in Retailing* - Degree program cancelled.

HONORS

Students will graduate with honors upon completion of their work if certain conditions are met:

Overall Quality Point Average

3.25 *Cum Laude*

3.50 *Magna Cum Laude*

3.75 *Summa Cum Laude*

Further requirements for honors are: a minimum of 60 semester hours residence in academic work at Christopher Newport College; and the entire record, including grades earned at other institutions, will be used to determine the grade point average.

GERONTOLOGY

The College is planning a multi-disciplinary minor in gerontology consisting of 18 credit hours, including three hours of field experience. This minor is designed for the following possible student needs:

1. To provide a body of knowledge about older persons to be combined with a major such as governmental administration, sociology, social work, and psychology. This could provide career options in gerontology-related areas such as nursing home administration; planning and administra-

tion in area agencies on aging; social work in social agencies, nursing homes, senior centers; counseling in various settings where services to the elderly are delivered; recreation services, etc.

2. As a minor for the student with an academic interest in gerontology but no career objectives in the area.

3. As a certificate program for gerontology practitioners in the community who could profit from academic work in gerontology.

The minor will consist of 15 hours of core courses required of everyone:

Sociology of Aging

Psychology of Adulthood and Aging

Physiological Aging and Health

Problems

Social Policy and Programs in Health and Aging

Practicum in Gerontology

Proposed elective courses are:

Economics of Health Resources and Aging

The Older Adult Learner

Recreation for the Senior Citizen

The following courses will be offered during the 1978-79 academic year: Sociology of Aging, Psychology of Adulthood and Aging, Economics of Health Resources and Aging, and Social Policy and Programs in Health and Aging. The remaining courses are proposed for the 1979-80 academic year.

For information about this program, contact Ruth Kernodle, Coordinator of Gerontology (599-7114).