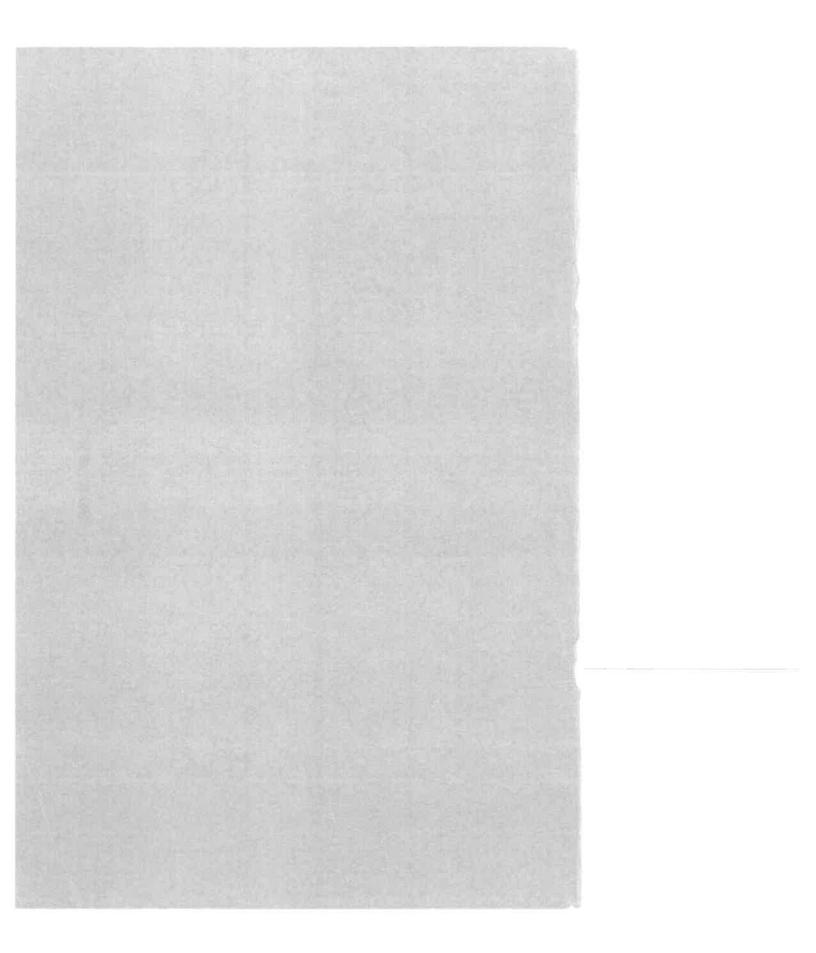
DABNEY S. LANCASTER COMMUNITY COLLEGE

CATALOG 1969-70





CATALOG

DABNEY S. LANCASTER COMMUNITY COLLEGE

CLIFTON FORGE, VIRGINIA 24422

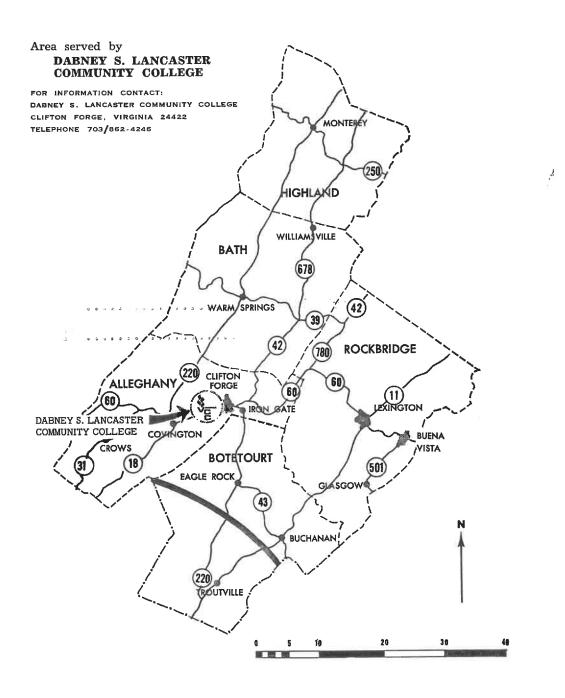


1969-70

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College Calendar

FALL QUARTER—1969 New Student orientation...... September 24 Registration......September 25-26 Classes begin, 8 a.m. September 29 Last day to register, add a course, or change from audit to credit.....October 3 Last day to drop course, or change from credit to audit. October 17 Thanksgiving holiday begins......November 27 Thanksgiving holiday ends, classes start at 8 a.m. December 1 Last day of classes......December 10 Examinations begin...... December 11 WINTER QUARTER—1970 New Student orientation...... January 2 Registration.....January 2-3 Classes begin, 8 a.m.January 5 Last day to register, add a course, or change from audit to credit......January 9 Last day to drop course, or change from credit to audit. January 23 Mid-term grade reports..... February 10 Washington's Birthday—holiday...... February 23 Last day of classes......March 17 SPRING QUARTER—1970 Classes begin, 8 a.m. March 30 Last day to register, add a course, or change from audit to credit......April 3 Last day to drop course, or change from credit to audit. April 17 Final deadline to apply for June Graduation......May 8 Last day of classes.....June 8 Examinations begin......June 9 Examinations, quarter ends......June 11 Graduation.....June 13

SUMMER QUARTER—1970—FULL TEN-WEEK SESSION	
New Student Orientation	
SUMMER QUARTER—1970—FIRST SESSION	
New Student orientation. June 15 Registration. June 15 Classes begin, 8 a.m. June 16 Last day to register, add a course, or change from audit to credit. June 18 Last day to drop course, or change from credit to audit. June 25 Independence Day—holiday. July 3 Mid-term grade reports. July 6 Last day of classes July 21 Final Examinations July 22-23	
SUMMER QUARTER—1970—SECOND SESSION	
New Student orientation July 24 Registration July 24 Classes begin, 8 a.m. July 27 Last day to register, add a course, or change from audit to credit July 29 Saturday Classes (Monday Sections) August 1 Last day to drop course, or change from credit to audit. August 5 Mid-term grade reports August 13 Saturday Classes (Tuesday Sections) August 15 Last day of classes . August 26 Final Examinations August 27-28	
FALL QUARTER—1970	
New Student orientation	ī

Part I

General Information

STATE BOARD FOR COMMUNITY COLLEGES

Eugene B. Sydnor, Jr., Chairman

Mrs. Mary Anne Franklin John D. Meade

Mrs. John Galleher

Benjamin W. Mears, Jr.

William S. Hoofnagle

W. Wirt Shapard

William P. Kanto

Thomas J. Lennon

D. Boyd Thomas

Henry W. Tulloch

Daniel C. Lewis

Gordon C. Willis

S. E. Liles, Jr.

STATE DEPARTMENT OF COMMUNITY COLLEGES

Dana B. Hamel, Director

DABNEY S. LANCASTER COMMUNITY COLLEGE BOARD

Thomas N. Warren (Clifton Forge), Chairman B. C. Moomaw (Alleghany County), Vice Chairman

James L. Clarkson (Bath County)

Marvin L. Eagle (Highland County)

Z. M. K. Fulton, III (Botetourt County)

Milton B. Henson (Buena Vista)

Howard V. Humphries (Covington)

Robert W. H. Mish, Jr. (Rockbridge County) William O. Roberts (Lexington)

DABNEY S. LANCASTER COMMUNITY COLLEGE

ADMINISTRATION

President John F. Backels B.S.F., University of Michigan, 1952 M.F., University of Michigan, 1953 M.B.A., University of Washington, 1958 Ed. D., Florida State University, 1968

Dean of Student Services James E. Guth B.A, Union College, 1961 M.A., Western Michigan University, 1964 Dean of Financial and

Administrative Services Robert M. Drewry B.S., Richmond Professional Institute, 1964 Coordinator of Library Services Elizabeth A. Scott

B.S., George Peabody, 1935 B.S. in L.S., George Peabody, 1936

Professor of English and Coordinator of Humanities Mary A. Thayer B.A., Trinity College, 1925 M.A., Boston University, 1926 Ph.D., Boston College, 1939

Coordinator of Learning Laboratory David P. Moon B.A., Middlebury College, 1962 M.Ed., Virginia Polytechnic Institute, 1968

FACULTY

Claunch, Jon Edward

B.S., Memphis State University, 1962 M.A., East Tennessee State, 1969

Instructor Barnes, John S. A.B., West Virginia University, 1967 M.A., West Virginia University, 1969 Political Science Instructor Art Bell, Carla H. Cert., Wisconsin School of Art, 1923 Instructor Biggs, Michel C. Mathematics B.S., Emory and Henry, 1959 M.S., Radford College, 1967 Instructor English Brazil, James M. B.A., State University College, Oneonta, N.Y., 1968 M.A., State University College, Oneonta, N.Y., 1969 Instructor

Industrial Technology

Dressler, Hollis L.	
Virginia Polytechnic Institute, 1954	Lecturer Landscape Gardening
Fischer, Mary M. B.S., Virginia Polytechnic Institute, 1948	Lecturer Chemistry
Guerra, Paul M. B.A., St. Bernard's Seminary and College, M.S., State University College, Oneonta, N.Y.	Instructor
Hamer, Carol B. B.S., Lambuth College, 1966	Lecturer Interior Decorating
Hamer, Joseph W. B.A., Lambuth College, 1966 M.A., Memphis State, 1967	Guidance Counselor
Hanner, Jack B. B.A., Greensboro College, 1964 M.A., Appalachian State University, 1968	Instructor French
Hefner, Clydie Lucille B.S., Appalachian State University, 1967 M.A., Appalachian State University, 1968	Instructor Mathematics
Hodges, Harriet G. A.B., Randolph-Macon, 1961 M.A., University of Virginia, 1964	Instructor English
Jamison, Doris H. B.S., Berea College, 1956 M.A., Appalachian State University, 1959	Lecturer Steno-Clerical Arts
Keyser, William V. B.A., Emory and Henry, 1965 M.F.A., Richmond Professional Institute, 1967	Instructor Speech and Drama
Knobloch, Fred F. B.S., University of Virginia, 1935 M.S., Virginia Polytechnic Institute, 1952	Assistant Professor Psychology
Luke, Nina R. B.A., New School for Social Research, 1964	Lecturer History
Manner, Jean H. B.S., Madison College, 1948	Instructor Secretarial Science
Moore, Betty L. A.B., Kansas State, 1944 M.A., Columbia University, 1949	Assistant Professor English
Olson, Bruce D. A.B., Elon College, 1964 M.A., Appalachian State Teachers, 1965	Instructor Physical Education
Shelor, Clifford D. B.S., Virginia Polytechnic Institute, 1964 M.S., Virginia Polytechnic Institute, 1968	Lecturer Mechanical Engineering Technology
Singleton, Robert E. A.B., Glenville State, 1959 M.A., West Virginia University, 1965	Guidance Counselor

*Smith, David R. B.S., Virginia Polytechnic Institute, 1963 M.S., Virginia Polytechnic Institute, 1968

Instructor Business Administration

Strong, Edward D. B.S., Bluefield State College, 1961 M.S., Radford College, 1967

Lecturer Mathematics

Sullivan, Micheal A.S., Bluefield Junior College, 1964

Instructor Business Administration

B.A., William and Mary, 1967

Terrell, Christopher P.

Lecturer Law

B.A., Randolph-Macon, 1961 L.L.B., University of Richmond Law School, 1965

Assistant Professor Truett, Mary Lou Business Management and B.S., Radford College, 1952 Secretarial Science

M.S., Radford College, 1969

Instructor

Tuholsky, Joseph M. Drafting and Design

A.A., Paducah, 1958 B.S., Murray State University, 1961 M.A., Murray State University, 1965

Assistant Professor Williamson, Frank D. B.S., West Virginia University, 1955 M.S., West Virginia Polytechnic Institute, 1968 Business Management

RETIRED FACULTY

Bloom, Edgar B. A.B., Hiram, 1923 M.S., Ohio State, 1926 Ph.D., Ohio State, 1928 Professor Emeritus Chemistry

Lawless, Marie C. B.S., Radford, 1952 M.Ed., University of Virginia, 1958 Professor Emeritus English

^{*} Leave of Absence.

LOCATION AND FACILITIES

Dabney S. Lancaster Community College is located near U. S. Route 60 and Interstate 64 approximately one mile west of downtown Clifton Forge. The College serves the cities of Buena Vista, Clifton Forge, Covington and Lexington and the counties of Alleghany, Bath, Rockbridge and Highland as well as the northern portion of Botetourt County.

The principal structure at the College is a new building containing modern laboratories, classrooms, offices and library. One additional classroom and laboratory building is under construction and will be in use during the winter quarter. The campus is located on a 117-acre tract bounded on three sides by the Jackson River.

The College library has a collection of 18,000 volumes with an annual acquisition rate of 4,000. It subscribes to over 200 current periodicals and has extensive holdings in microfilm, slides, records and films.

HISTORY

In September of 1964 students were admitted for the first time to the Clifton Forge-Covington Division of the Virginia Polytechnic Institute. This Branch College offered work in the first two years of programs offered at the parent institution as well as a certificate program in Secretarial Science. Later, in 1965, a pre-college foundations program was added and, in 1966, was expanded into the General Community College Program.

Beginning with the summer quarter, 1967, all programs of this Community College came under the control of the Virginia Department of Community Colleges. The College itself was redesignated Dabney S. Lancaster Community College, honoring the prominent Virginia educator and long-time resident of the area served by the College.

PURPOSE

Dabney S. Lancaster Community College is dedicated to the belief that each individual should be given a continuing opportunity for the development and extension of his skills and knowledge along with an opportunity to increase in awareness of his role and responsibility in society. The College is devoted to serving the educational needs of the local com-

munity and assumes a responsibility to help meet the requirements for trained manpower in its region through a cooperative effort with local industry, business, professions and government.

Educational opportunities are provided for adults as well as college-age youth. This includes high quality instructional programs at the associate degree level and at the preparatory or foundations level. A strong guidance and counseling program along with a number of other student services is also provided to help each student make sound decisions regarding his occupational, educational, and personal-social plans.

Dabney S. Lancaster Community College is a comprehensive institution of higher education, offering programs of instruction generally extending not more than two years beyond the high school level. Programs include:

- 1. Occupational-Technical Education. The occupational and technical education programs are designed to meet the increasing demand for technicians, semiprofessional workers, and skilled craftsmen for employment in industry, business, the professions, and government. The curriculums are planned primarily to meet the needs for workers in the region being served by the College.
- 2. University Parallel-College Transfer Education. The university parallel-college transfer program includes college freshman and sophomore courses in arts and sciences and preprofessional programs meeting standards acceptable for transfer to baccalaureate degree programs in four-year colleges and universities.
- 3. General Education. The programs in general education encompass the common knowledge, skills, and attitudes needed by each individual to be effective as a person, a worker, a consumer, and a citizen.
- 4. Continuing Adult Education. Adult education programs are offered to enable the adults in the region to continue their learning. This work includes both degree credit and non-degree credit work offered during the day and evening hours.
- 5. Special Training Programs. Special training is provided where specific job opportunities are available for new or expanding industries. This special training shall be coordinated with Virginia's economic expansion efforts and with the needs of employers.
 - 6. Preparatory Foundation Programs. Foundations and de-

velopmental programs are offered to help prepare individuals for admission to an occupational-technical curriculum or to a university parallel-college transfer curriculum in the Community College. These programs are designed to help the individual develop the basic skills and understandings necessary to succeed in other Community College programs.

7. Specialized Regional and Community Services. The facilities and personnel of the College are available to provide specialized services to help meet the cultural and educational needs of the region served by the community colleges. This service includes the non-classroom and non-credit programs, cultural events, workshops, meetings, lectures, conferences, seminars, and special community projects which are designed to provide needed cultural and educational opportunities for the citizens of the region.

RECOGNITION

The College is a division of the Virginia Community College System and is approved by the State Board for Community Colleges and by the State Department of Community Colleges in Virginia. The associate degree curriculums of the College have also been approved by the State Council of Higher Education for Virginia. The College has established contact with the Southern Association of Colleges and Schools and is a candidate for full accreditation and membership.

The College is fully accredited by the State Board of Education and is approved for listing in U. S. Office of Education directories.

The College is an institutional member of the American Association of Junior Colleges.

Part II Administrative Information

ADMISSION REQUIREMENTS

General Admission to the College

Any person who has a high school diploma or the equivalent, or who is 18 years of age, and in any case is able to benefit from a program at the College may be admitted to the College as a regular student or as a special student when the following items have been received by the Office of Admissions. The College reserves the right to evaluate special cases and to refuse admission to applicants when considered advisable in the best interest of the College.

For all regular students, the following items are required:

- 1. A completed official application for admission (NOTE: Social Security number is required.);
- 2. A \$5.00 application fee (non-refundable unless the requested program or course is not offered);
- 3. Official transcripts from all high schools, colleges, and universities attended.

For all special students, the following items are required:

- A completed official application for admission (NOTE: Social Security number is required);
- 2. A \$5.00 application fee (non-refundable unless the requested program or course is not offered).

Persons wishing to apply for the non-credit community service programs should contact the college for additional information.

After a person has been admitted to the College, he may be required to meet with one of the College counselors (a) to discuss the applicant's educational interests, (b) to determine what additional tests he may need, and (c) to plan his application for admission to a specific curriculum or program at the

College. He may also be required to submit a health certificate (form to be furnished by the College) and any additional information required by the College for admission to a specific program or curriculum.

This College does not discriminate on the grounds of race, color, or national origin and is in compliance with the Civil Rights Act of 1964.

Admission to Specific Curriculums

In addition to the general admission requirements listed above, specific requirements are usually prescribed for each curriculum of the College. Among the items generally considered in determining the eligibility of a student for admission to a curriculum in the College are his educational and occupational experiences, and other reasonable standards to insure that the student possesses the potential to meet program requirements.

The specific requirements for each curriculum in the College are listed in the Curriculum Offerings section of the College catalog. Persons who do not meet the requirements for a specific curriculum or course may be eligible to enter the curriculum or course after they have completed preparatory course work.

All regular students entering the College will be required to take the ACT test battery of the American College Testing Program. The ACT test battery is administered at the College and other test centers prior to registration.

Persons applying to enter one of the associate degree (Associate in Science, Associate in Arts, or Associate in Applied Science) programs shall be a high school graduate or the equivalent or have completed an approved preparatory program.

In addition, all students who plan to transfer to a four-year college or university which requires the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board will be requested to submit these test scores to the Community College.

Special Admission Requirements for Foreign Students

In addition to the general admission requirements of the College, all foreign students must demonstrate proficiency in both written and oral English.

Residence Requirements

Applicants will be required to submit a residence affidavit to determine state residency eligibility for tuition purposes.

When enrollments must be limited for any curriculum or course, first priority will be given to all qualified students who are residents of the political sub-divisions supporting the College, provided such students apply for admission to the program a reasonable length of time prior to registration. The priority list is as follows: (1) residents of the political subdivisions supporting the College, (2) other Virginia residents, (3) out-of-state and foreign students.

Qualified Applicants shall be accepted by Dabney S. Lancaster Community College in accordance with the following schedule:

- 1. **Prior to 1 April:** District residents and students transferring from other units in the Virginia Community College System to special curricula found only at the College.
- 2. From 1 April to 15 April: All state residents.
- 3. After 15 April: All applicants.

Students Transferring from Other Colleges

Usually, a student transferring from another college who is eligible for re-entrance at the last college shall also be eligible for admission to the College.

It is the role of the College to help each student succeed in a program from which he can benefit. If a transfer student is ineligible to return to a particular curriculum in a previous college, generally he will not be allowed to enroll in the same curriculum in the College until two quarters elapse or until he completes an approved preparatory program at the College. The Admissions Committee of the College shall decide on each case and usually shall impose special conditions for the admittance of such students, including placement or probation.

Each student transferring from another college should consult the Dean of Student Services at the community college for an assessment of credits in order to determine his standing before registering for classes. Generally no credit will be given for subjects with grades lower than "C". A transfer student may be advised to repeat courses if it is clearly to his ad-

vantage to do so in order to make satisfactory progress in his curriculum.

Students Applying for Credit or Waiver of Requirements

Students who have reason to believe that previous educational studies, training programs, or work experience may entitle them to an adjustment in the course work required in a particular curriculum should contact the Dean of Student Services to determine procedures before registering for classes.

Auditing

A student may audit a course to learn about the subject without having to take the course examination. No credit is given for auditing a course. If a person wishes to change his status in a course from audit to credit, he must do this within the first week of the class. In all cases, permission of the instructor and the Dean of Instruction is required to audit a class.

CLASSIFICATION OF STUDENTS

All students are classified according to the following categories:

Regular Student. A student is designated as regular when his file in the Admissions Office contains all of the information required for general admission to the College as a regular student and when he has been admitted to one of the curriculums of the College. A regular student is one of the following:

- A full-time or part-time student working toward completion of an associate degree, diploma, certificate, or foundations program;
- 2) A full-time or part-time student taking credit courses for transfer to another college or university.

Special Student. A special student is one who is permitted to register under special conditions including the following:

- 1) A part-time student taking a credit course(s) as an audit for no credit;
- A high school senior who, with the permission of his high school principal, is concurrently enrolled in a college course;
- 3) A part-time student not enrolled in an associate de-

- gree, diploma, or certificate program who may be taking courses for credit (such students may later apply to the College for admission to a program as a regular student);
- 4) A person who has not yet fulfilled all of the requirements as a regular student but who is admitted under special consideration by the admissions committee of the College. It is expected that such persons would fulfill all requirements prior to the mid term of the quarter or face dismissal from the College.

Full-time Student. A student is considered a full-time student if he is carrying 12 or more credits of course work.

Part-time Student. A student is considered a part-time student if he is carrying less than 12 credits of course work.

Freshman. A student is classified as a freshman until he has completed 45 credits of work in his designated curriculum.

Sophomore. A student is considered a sophomore after he has completed 45 or more credits of course work in his designated curriculum. Transferred credits are included providing they apply toward meeting the requirements of the student's curriculum.

EXPENSES

Application Fee

An application fee of \$5.00 must accompany the application for admission to the College for each student. This fee is not applicable to tuition, nor refundable unless the requested program is not offered.

Tuition

Full-time Student (12 or more credits):

\$ 45.00 per quarter Virginia Resident 150.00 per quarter Out-of-State Resident

Part-time Student:

4.00 per credit Virginia Resident (or equivalent) 12.50 per credit Out-of-State Resident (or equivalent)

A Virginia resident is one who has been domiciled in, and is and has been an actual bona fide legal resident of Virginia, for a period of at least one year prior to the commencement of the term or quarter for which he is enrolling.

Payment of tuition also enables the student to use the library, bookstore, parking lot, student lounge, and other facilities of the College. There are no special laboratory or library fees but students are expected to pay charges for any school property (such as laboratory or shop equipment, supplies, library books and materials) that they damage or lose.

Graduation Fee

A graduation fee of \$10.00 shall be charged each graduating student to cover the cost of the rental of caps and gowns and the cost of the degree, diploma, or certificate, payable at the beginning of the last quarter of instruction.

Books and Materials

Students are expected to obtain their own books, supplies and consumable materials needed in their studies. It has been estimated that the cost for these items will average \$35-\$50 per quarter for the average full-time student.

Refunds

Authorized refunds will be as follows for students with-drawing from the College: (a) within first 15 class days of a quarter, refund will be 2/3 of tuition; (b) within first 16-35 class days of a quarter, refund will be 1/3 of tuition; (c) after 35 class days of a quarter have elapsed, no refund will be made. If a course is cancelled, there will be an automatic refund of tuition for that course. No refunds for tuition will be made after the first week of classes for individual course changes or for an individual class which is dropped. For part-time students, refunds will be pro-rated on the above schedule.

Official resignation for a student shall become effective on the date that written notification of intent to resign is received by the Office of Admissions and Records; and is not the date of the last class attended, unless the two dates coincide.

CREDITS

A credit is equivalent to one collegiate quarter hour credit or two-thirds of a collegiate semester hour credit. Usually, one credit for a course is given for approximately three hours of work weekly by each student as follows:

- a) One hour of lecture plus an average of two hours of outof-class study, or
- b) Two hours of laboratory or shop work plus an average of one hour of out-of-class study, or
- c) Three hours of laboratory or shop work with no out-ofclass assignments.

GRADING SYSTEM

- A = Excellent = Four grade points per credit
- B = Good = Three grade points per credit
- C = Average = Two grade points per credit
- D = Poor = One grade point per credit
- F = Failure = 0 grade points
- S = Satisfactory = No grade point credit (applies only to specialized courses and seminars)
- U = Unsatisfactory = No grade point credit (applies only to specialized courses and seminars)
- W = Withdrawal = No credit (a grade of withdrawal implies that the student was making satisfactory progress in the course at the time of his withdrawal or that the withdrawal was officially made before the deadline date published in the College calendar)
- I = Incomplete—No credit (a grade of incomplete is assigned only in cases of student absence from a limited number of class sessions near the end of a term or grading period and when the absence was for a verifiable unavoidable reason; i.e, sickness verified by medical statement, accident verified by police records, etc., or absence from final examination for a verifiable and unavoidable reason. An "incomplete" must be made up during the next term following its issuance unless special permission for an extension of time is given by the Dean of Instruction.)
- X = Audit—No credit (permission of the instructor and the Dean of Instruction is required to audit a class)

The grade point average (G.P.A.) is determined by dividing the total number of grade points earned in courses in the student's curriculum by the total number of credits attempted in the student's curriculum.

DEGREES, DIPLOMAS AND CERTIFICATES

Dabney S. Lancaster Community College offers the following degrees, diplomas or certificates for students who successfully complete approved programs at the College.

- 1) Associate in Arts degree (A.A.) is awarded to students majoring in the liberal arts and who may plan to transfer to four-year colleges or universities after completing their community college programs.
- 2) Associate in Science degree (A.S.) is awarded to students majoring in specialized curriculums such as business administration, teacher education, pre-engineering, and other pre-professional programs and who may plan to transfer to four-year colleges or universities after completing their community college programs.
- 3) Associate in Applied Science degree (A.A.S.) is awarded to students majoring in one of the occupational-technical curriculums and who may plan to obtain full-time jobs immediately upon graduation from the Community College.
- 4) **Diplomas** are awarded to students who complete one of the two-year diploma occupational curriculums.
- 5) Certificates are awarded to students who complete one of the approved curriculums that are less than two years in length.

GRADUATION REQUIREMENTS

Associate Degree Requirements

To be awarded an Associate Degree from the College, a student must:

- 1) Have fulfilled all of the course requirements of his particular curriculum as outlined in the College catalog;
- 2) Have been recommended for graduation by the appropriate instructional authority in his curriculum;
- 3) Have completed at least 97 credits applicable to an associate degree of which 45 credits must be acquired at the College;
- 4) Have completed the general education requirements (course work in Economics, English, Government, Orientation, and Psychology) for an associate degree;

- 5) Have earned a grade point average of at least 2.0 on all work attempted and which is applicable toward graduation in his particular curriculum;
- 6) Have filed an application for graduation in the Office of Admissions and Records;
- 7) Have resolved all financial obligations to the College and returned all materials, including library books.
- 8) Have attended graduation exercises.

Certificate Requirements

If a student successfully completes a program of instruction which does not lead to an associate degree or diploma, he may be awarded a certificate. Also, if he pursues a degree or diploma program but is unable to complete the degree or diploma requirements, he may, upon the recommendation of the appropriate instructional division and the Dean of Instruction, be issued a certificate provided the portion of study successfully completed is equivalent to an approved certificate program offered at the College.

ACADEMIC REGULATIONS

Attendance

Punctual and regular attendance is expected of all students in all course activities. Any class session missed, regardless of cause, reduces the opportunity for learning and frequently adversely affects the grade the student achieves in a course.

When absence does occur, the student is to present his excuse, verbally or in writing, to the instructors whose classes he misses. When absence from a class becomes excessive, a warning report is sent to the student's home. Any further absence will make the student liable for suspension from the class.

It will be the decision of the instructor as to whether or not the student should be permitted to make up the work missed, and in the case of excessive absences the instructor may recommend to the Dean of Instruction that the student be suspended from class. Should suspension result, the student's readmission to class will be on the recommendation of the instructor in consultation with the Dean of Student Services and Dean of Instruction.

Change of Registration

In all cases students should follow established procedures for making any change in their programs after registration. Failure to do so could place their college record in jeopardy.

1) Withdrawal from a class:

Withdrawal from a class without penalty may be made within the first three weeks after the beginning of a quarter. If the student's work has been passing up to that time, he will receive a grade of "W" for withdrawal. After that time the student must accept a failing grade of "F" if his work has been unsatisfactory up to the time of withdrawal. In all cases the word "Withdrawn" will be written on his permanent academic record.

2) Addition of a course:

In most cases a student may not enter a new class after the first week of a quarter. Any request for entry after that period must be approved by the instructor concerned and the Dean of Instruction.

3) Withdrawal from the College:

A student who wishes to withdraw from the College should contact a counselor to determine the appropriate procedure. Failure to follow established procedures could place the student's college record in doubt and prejudice his return to this or another college.

Academic Warning

Any student who fails to make a grade point average of 2.0 or higher for any one quarter, or who fails any course, will receive an Academic Warning.

Academic Probation

Any student who fails to maintain a cumulative grade point average of 1.5 will be placed on academic probation. The statement "Placed on Academic Probation" will be placed on the student's permanent record.

A student on academic probation is required to consult with his counselor and may be required to take less than the normal academic load in his next quarter following this action.

Academic Suspension

The student on academic probation who fails to make a

grade point average of 1.5 for the next quarter that he is in attendance will be subject to academic suspension. Academic suspension normally will be for two quarters unless the student reapplies, and is accepted, for readmission to another curriculum of the College. The statement, "Placed on Academic Suspension" will be placed on the student's permanent record. The student must apply for readmission under all circumstances of academic suspension.

Academic Dismissal

A student who has been placed on academic suspension and achieved a 2.0 grade point average for the quarter following his reinstatement must maintain at least a 1.5 grade point average in each subsequent quarter of attendance. The student remains on probation until his overall grade point average reaches a minimum of 1.5. Failure to obtain a 1.5 in each subsequent quarter will result in academic dismissal. Academic dismissal normally is permanent unless, with good cause, the student reapplies and is accepted under special consideration for readmission by the Admissions Committee of the College. The statement "Placed on Academic Dismissal" will be placed on the student's permanent record.

Examinations

All students are expected to take their examinations at the regularly scheduled times. No exceptions will be made without the permission of the Dean of Instruction and the instructor of the class.

Normal Academic Load

The normal academic load for students is 15-17 credits. The minimum full-time load is 12 credits and the normal maximum full-time load is 18 credits. A student wishing to carry an academic load of more than 18 credits must have a "B" average or higher and must have the approval of the Dean of Instruction and the student's faculty advisor or counselor.

Part III

Student Services

COUNSELING

As a service to students and to the community, the College maintains a staff of professional counselors, in addition to a system of faculty advisors in each instructional program.

The counseling department functions to assist students in making intelligent decisions regarding their vocational, educational, and personal-social plans. As a part of this assistance, students have available appropriate tests, inventories, occupational and educational information, and information regarding financial assistance or employment.

The counseling service provides individual attention and supplementation to the instructional program of the College.

TESTING

A well-planned testing program for all students is coordinated by the Counseling Department. The test battery of the American College Testing Program (ACT) is required for all new students planning to enter one of the associate degree, diploma, or certificate programs. This ACT test battery is administered at the College and other test centers prior to registration. In addition, all students who plan to transfer to a four-year college or university which requires the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board will be requested to submit these test scores to the Community College.

Tests for students interested in one of the occupationaltechnical programs are available to provide special information for helping students determine their future occupational and educational plans. In addition, other special tests and interest inventories are available at the Counseling Office.

Instructors in each curriculum of the College also have tests established for their courses and programs.

ORIENTATION

An orientation program has been established to acquaint new students with the purposes and programs of the College. The orientation program begins weeks before registration when the student is asked to meet with a counselor at the College for an interview to discuss the student's educational interests, to determine what additional tests he may need, and to plan the student's application for admission to a specific curriculum at the College. The student will also meet with a counselor to plan his program and course of studies.

An orientation is scheduled for all new students prior to the registration period for group orientation to the College and a discussion of student services and activities.

In addition, an orientation class is provided for the first quarter for all students to aid them in their personal and academic adjustment.

FINANCIAL AIDS

It is the desire of the College that no qualified student be denied the privilege of attendance because of financial need. The Student Financial Aids Committee—composed of representatives of the administrative, counseling, and instructional staff—is appointed by the President of the College for the purpose of providing information concerning aid programs, administering funds granted by donors, determining need, assessing applications, and granting awards.

Students wishing to apply for financial aid may secure application blanks from the office of the Counseling Department.

Grants-in-Aid

A number of financial grants-in-aid have been made available through the generosity of certain individuals and organizations. Grants-in-aid are granted on the basis of demonstrated academic ability and financial need.

Part-time Employment

A placement office operates throughout the year to assist students in securing part-time employment. An effort is made to place students in job fields which relate to their college programs. Students who work more than 20 hours per week are advised to adjust their course loads accordingly.

Work-Study Program

Numerous jobs on campus are available each year under the Work-Study Program. Application forms are available in the Counseling Department.

Student Loans

Students who need student loans should contact the Counseling Department for information.

Students who are residents of Virginia are eligible to apply for loans under the State Education Assistance Authority Plan. Loans are made through commercial banks at favorable interest rates and are repayable in monthly installments beginning six months after the student graduates or after he leaves college. For details about the program or a list of participating banks, contact the College or write to State Education Assistance Authority, 1010 State-Planters Bldg., Richmond, Virginia 23219.

Other financial aid plans may be added throughout the year. Interested students may inquire through the Counseling Department.

PLACEMENT SERVICE

The College maintains a placement service in the Counseling Department for students who wish to secure part-time or full-time employment while attending college, during vacations, or after graduation. Occupational information on job requirements and opportunities is provided in the Counseling Department. The College maintains continuous contact with the state employment service, business, industry, the professions, and government for the latest information about jobs.

Students who seek part-time work are encouraged to do so with a view to their future career plans. The experience gained will assist them in finding permanent and satisfying positions.

SNACK BAR

The College maintains a snack bar in temporary facilities immediately behind the Administration Building. Vending machines for soft drinks, candy, pastry, sandwiches, milk and coffee are provided.

PARKING

Ample parking space is provided for the students attending the Dabney S. Lancaster Community College. Students are not to park in the spaces reserved for faculty and visitors.

STUDENT ACTIVITIES

The student activities program is designed to provide a variety of meaningful educational, cultural, and social experiences.

Clubs and organizations are operated under the jurisdiction of the Student Government to provide an opportunity for student participation in areas of special interest and service.

Clubs will be organized to provide educational and recreational opportunities for students. Each club will have an active faculty sponsor. All full-time students are eligible to belong to such clubs and organizations but students on academic probation may not hold office.

STUDENT HANDBOOK

A student handbook is available to provide additional information of interest to students. The handbook describes student activities and organizations and also lists the college rules and regulations.

STUDENT CONDUCT

Each individual is considered a responsible adult, and it is assumed that men and women of college age will maintain standards of conduct appropriate to membership in the college community. Emphasis is placed on standards of student conduct rather than on limits or restrictions of students. Guidelines and regulations governing student conduct usually are developed by representatives of the students, faculty, counseling staff, and administration. The College refrains from imposing a rigid code of discipline but reserves the right to take disciplinary action compatible with its own best interest when it is clearly necessary. The regulations shall become official by administrative statement.

Failure to meet standards of conduct acceptable to the College may result in disciplinary probation or dismissal, depending upon the nature of the offense. A disciplinary probation

period, unless otherwise specified, is for the duration of one quarter. A student who is dismissed must reapply to the College and will normally be required to appear before a special committee before admission can be granted.

The Virginia Community College System guarantees to each student the privilege of exercising his rights of citizenship under the Constitution of the United States without fear of prejudice. Special care is taken to assure due process and to spell out clearly-defined routes of appeal when a student feels his rights have been violated.

Basically, students of the Community Colleges are expected to conduct themselves as ladies and gentlemen, both within the Colleges and elsewhere. For student conduct which tends to discredit or injure the College, the State Director is authorized by the State Board for Community Colleges to impose such penalty as he may deem appropriate, including expulsion from the College. This authority has been delegated by the Director to the Administration of each Community College, subject to review by the Director or his delegated representative. When the penalty for misconduct is suspension or dismissal the student may appeal the decision to the Local Advisory Board. Final appeal may be made to the State Board of Community Colleges.

Any student found guilty of participating in or inciting a riot or an unauthorized or disorderly assembly is subject to suspension or dismissal.

To prevent misunderstanding, the Chancellor has issued the following clarification:

- 1. When an assembly on campus of students not authorized by the College has been requested to disband by the President or other designated officer, those refusing to comply will be subject to immediate suspension and/or dismissal and legal action.
- 2. In the event that an assembly appears to be a demonstration related to grievances, those present should be advised that orderly procedures for the hearing of grievances are available and must be adhered to. College officials will not negotiate with such groups under condition of duress, such as unauthorized occupation of College property.
- 3. Any unauthorized occupation of buildings and/or College property constitutes reason for immediate suspen-

MINIMUM REQUIREMENTS FOR ASSOCIATE DEGREES

Associate in Arts (A.A.)

Associate in Science (A.S.)

Associate in Applied Science (A.A.S.)

Num	nber of credi	ts (Quarter A.S. ^a	Hours) A.A.S.
English Composition Literature (English, American, or World Speech Art, Drama, Music, and/or Philosophy Foreign Language	0-3 5 9	$ \begin{array}{c} 6-9 \\ 3-6 \\ 0-3 \\ 0-3 \end{array} \right\} 12$	6 3 —
Social Sciences History (American or Western Civilization Economics Government Psychology or Human Relations		3-9 0-9 0-9 0-9	 3 3 3
Natural Sciences and Mathematics Natural Science (Laboratory) (Biology, Chemistry, Geology, Physics Mathematics Health, Physical Education, or Recreatic Orientation	9	12-15 9 3-6 1	
Electives and other Major Field Requirements	6-24A	57^	75°
Minimum Total Number of Credits for Degree	97	97	97

- Each student is urged to acquaint himself with the requirements of the major department in the college or university to which transfer is contemplated and further to consult with the Counseling Department of the Community College in planning his program and selecting his electives.
- B. Students who have successfully completed two years of a foreign language in high school may petition for advanced placement to the sophomore level course of this foreign language.
- c. In addition to the history requirements the student shall complete a total of nine quarter-hours credit in the social sciences which may include economics, government, and/or psychology.
- The Associate in Applied Science degree programs generally are organized approximately as follows:

Specialized courses in major field	50%
Supporting technical and theory courses in	
related fields	25-30%
Conoral education courses	20_25%

Liberal Arts

Degree: Associate in Arts

Length: Six-quarter (two-year) program

Purpose: The Associate in Arts degree program in Liberal Arts is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program, usually the Bachelor of Arts degree, in the liberal arts or social sciences. Students in this program may wish to major in the following fields:

Economics
Education
English
Foreign Language
Government (Political Science)
History
Humanities

Journalism
Library Science
Literature
Philosophy
Pre-Law
Psychology
Sociology
Teacher Education

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admission requirements in Part II of this catalog), entry into the Associate in Arts degree program in Liberal Arts requires the satisfactory completion of the following high school units or equivalent as a minimum:

- 4 units of English
- 2 units of mathematics (algebra and geometry)*
- 1 unit of laboratory science
- 1 unit of history

The remaining units are elective subjects, but at least two units of a foreign language are recommended. Students who do not meet these requirements may be permitted to correct their deficiencies in the Preparatory (Foundation) Program before entering the Liberal Arts curriculum.

^{*}Students are urged to check the mathematics requirements of the fouryear college or university to which they plan to transfer to determine the proper mathematics courses to be taken in the community college.

Program Requirements: This curriculum consists of courses in the humanities including a foreign language, natural sciences, and social sciences, usually required in the first two years of a baccalaureate liberal arts curriculum. A minimum of 97 credits is required for the Liberal Arts major in the Associate In Arts degree program. Each student is urged to acquaint himself with the requirements of the major department in the college or university to which transfer is contemplated and also to consult with the Counseling Department of the Community College in planning his program and selecting his electives. In order to help prepare for upper division (junior class) standing at a four-year college or university, the student usually must complete a program at the Community College that is comparable in length and courses to the first two years of the program at the four-year college or university. Upon satisfactory completion of the program, the student will be awarded the Associate in Arts degree with a major in Liberal Arts.

LIBERAL ARTS

Associate in Arts Degree Program

_		Course Title	G
Course Number		FIRST QUARTER	Course Credits
ENGL HIST or	111 101	English Composition I History of Western Civilization I	3
HIST MATH or	111 161	American History I College Mathematics I	3
MATH FREN or	181 101	General College Mathematics I Elementary French I	3
FREN	201	Intermediate French I*	4
GENL	100	Orientation	1 3
		Elective**	3
		m	177
		Total	17

SECOND QUARTER

ENGL HIST	112 102	English Composition II History of Western Civilization III	3
or HIST MATH	$\frac{112}{162}$	American History II College Mathematics II	3
or MATH FREN	182 102	General College Mathematics II Elementary French II	3
or FREN PHED	202	Intermediate French II Physical Education Elective Elective**	4 1 3
		Total	17
		THIRD QUARTER	
		Time Comment	
ENGL HIST	113 103	English Composition III History of Western Civilization III	3
or HIST MATH	113 163	American History III College Mathematics III	3
or MATH FREN	183 103	General College Mathematics III Elementary French III	3
or FREN PHED	203	Intermediate French III Physical Education Elective Elective**	4 1 3
		Total	17
		FOURTH QUARTER	
ENGL BIOL	261 101	English Literature I General Biology I	3
or CHEM FREN	111 201	General Chemistry I Intermediate French I	4 4
PSYC	201	Elective** General Psychology I Humanities Elective**	3 3
PHED		Physical Education Elective	1
		Total	18

FIFTH QUARTER

ENGL BIOL	262 102	English Literature II General Biology II	3
or CHEM FREN or PSYC	112 202 202	General Chemistry II Intermediate French II Elective** General Psychology Elective**	4 4 3 3
		Total	17
		SIXTH QUARTER	
ENGL BIOL	262 103	English Literature III General Biology III	3
or CHEM FREN	113 203	General Chemisty III Intermediate French III Elective	4 4
or PSYC	203	General Psychology III Elective**	3 3
		Total	17

Total Minimum Credits for a Liberal Arts Major 97

^{*}Students who have satisfactorily completed two years of French in high school may petition for advanced placement.

^{**}Students are to consult with their counselor in the choice of all electives.

Business Administration

Degree: Associate in Science

Length: Six-quarter (two-year program)

Purpose: With the rapid development in business and industry in Virginia, there is a great demand for qualified personnel in business administration to help provide leadership for this economic growth.

The Associate in Science degree program in Business Administration is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program in business administration.

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admission requirements in Part II of this catalog), entry into the Associate in Science degree program in Business Administration requires the satisfactory completion of the following high school units or equivalent as a minimum:

- 4 units of English
- 2 units of mathematics (algebra and geometry)*
- 1 unit of laboratory science
- 1 unit of social studies

Students who do not meet these requirements may be permitted to correct their deficiencies in the Preparatory (Foundation) Program before entering the Business Administration curriculum.

Program Requirements: The modern business world demands knowledge in fields over and beyond every-day business technology. Thus, this curriculum requires courses in the humani-

^{*}Students are urged to check the mathematics requirements of the fouryear college or university to which they plan to transfer to determine the proper mathematics courses to be taken in the community college.

ties, natural sciences, and social sciences in addition to the principles of economics and principles of accounting usually required in the first two years of a baccalaureate business administration curriculum. Each student is urged to acquaint himself with the requirements of the major department in the college or university to which transfer is contemplated and also to consult with the Counseling Department of the Community College in planning his program and selecting his electives. In order to help prepare for upper division (junior class) standing at a four-year college or university, the student usually must complete a program at the Community College that is comparable in length and courses to the first two years of the program at a four-year college or university. Upon completion of the program, the student will be awarded the Associate in Science degree with a major in Business Administration.

BUSINESS ADMINISTRATION

Associate in Science Degree Program

		Course Title	
Course Number		FIRST QUARTER	Course Credits
ENGL HIST or	111 101	English Composition I History of Western Civilization I	3
HIST MATH or	111 161	American History I College Mathematics I	3
MATH BIOL or	181 101	General College Mathematics I General Biology I	3
CHEM	111	General Chemistry I Elective*	4 3
GENL	100	Orientation	_1
		Total	17

SECOND QUARTER

ENGL HIST	112 102	English Composition II History of Western Civilization II	3
\mathbf{or}			
HIST	112	American History II	3
MATH	162	College Mathematics II	
or			
MATH	182	General College Mathematics II	3
BIOL	102	General Biology II	•
\mathbf{or}			
CHEM	112	General Chemistry II	4
		Elective*	3
PHED		Physical Education Elective	1
		1 113 Steat Education Execute	-
		Total	17
		Total	14

THIRD QUARTER

ENGL HIST	113 103	English Composition III History of Western Civilization	3
or	103	mistory of Western Civilization	
HIST	113	American History III	3
			9
MATH	163	College Mathematics III	
\mathbf{or}			
MATH	183	General College Mathematics III	3
BIOL	103		3
OL	103	General Biology III	3
CHEM	113	General Chemistry III	4
		Elective*	3
			9
PHED		Physical Education Elective	1
		Total	17

FOURTH QUARTER

ENGL	261	English Literature I	3
BUAD	211	Principles of Accounting I	4
PSYC	201	General Psychology I	3
ECON	211	Principles of Economics I	3
		Elective*	3
PHED		Physical Education Elective	1
			_
		Total	17

FIFTH QUARTER

ENGL BUAD PSYC ECON	262 212 202 212	English Literature II Principles of Accounting II General Psychology II Principles of Economics II Elective*	3 4 3 3 3
		Total	16

SIXTH QUARTER

ENGL	263	English Literature III Principles of Accounting III General Psychology III Principles of Economics III Elective*	3
BUAD	213		4
PSYC	203		3
ECON	213		3
		Total	16

Total Minimum Credits for a Business Administration Major 97

^{*}Students are to consult with their counselor in the choice of all electives.

Science

Degree: Associate in Science

Length: Six-quarter (two-year) program

Purpose: With the tremendous emphasis on scientific discoveries and technological developments in today's society, there is a great demand for scientists and scientifically-oriented persons in business, government, industry, and the professions.

The Associate in Science degree program with a major in Science is designed for persons who are interested in a preprofessional or scientific program and who plan to transfer to a four-year college or university to complete a baccalaureate degree program with a major in one of the following fields:

Agriculture	Forestry	Nursing
Biology	Home Economics	Pharmacy
Chemistry	Mathematics	Physics
Dentistry	Medicine	

Admission Requirements: In addition to the requirements established for the College (as listed in the section on admission requirements in Part II of this catalog), entry into the Associate in Science Degree program with a major in Science requires the satisfactory completion of the following high school units or equivalent as a minimum:

4 units of English
2 units of algebra
1 unit of geometry
1 unit of laboratory science
1 unit of social studies

Students who do not meet these requirements may be permitted to correct their deficiencies in the Preparatory Foundations Program before entering this science curriculum.

Program Requirements: Although the major emphasis in this curriculum is on mathematics, the biological sciences, and the physical sciences, the curriculum also includes courses in the humanities and social sciences. Numerous electives are pro-

vided so that the student can select the appropriate courses for his pre-professional or scientific program as required in the first two years of the four-year college or university. Each student is urged to acquaint himself with the requirements of the major department in the college or university to which transfer is contemplated and also to consult with the Counseling Department of the Community College in planning his program and selecting his electives. In order to help prepare for upper division (junior class) standing at a four-year college or university, the student usually must complete a program at the Community College that is comparable in length and courses to the first two years of the program at the four-year college or university. Upon satisfactory completion of the program, the student will be awarded the Associate in Science degree with a major in science.

SCIENCE
Associate in Science Degree Program

_		Course Title	~
Course Number		FIRST QUARTER	Course Credits
ENGL HIST MATH BIOL or	111 101 161 101	English Composition I History of Western Civilization I College Mathematics I General Biology I	3 3 3
CHEM PSYC GENL	111 201 100	General Chemistry I General Psychology I Orientation	4 3 1
		Total	17
		SECOND QUARTER	
ENGL HIST MATH BIOL or	112 102 162 102	English Composition II History of Western Civilization II College Mathematics II General Biology II	3 3 3
CHEM PSYC PHED	112 202	General Chemistry II General Psychology II Physical Education Elective	4 3 1
		Total	17

		THIRD QUARTER	
ENGL HIST MATH BIOL or	113 103 163 103	English Composition III History of Western Civilization III College Mathematics III General Biology III	3 3 3
CHEM PSYC PHED	113 203	General Chemistry III General Psychology III Physical Education Elective	4 3 1
		Total	17
		FOURTH QUARTER	
ENGL MATH BIOL	261 101	English Literature I Elective* General Biology I	3
or CHEM ECON	111 211	General Chemistry I Principles of Economics I Elective**	4 3 3
		Total	16
		FIFTH QUARTER	
ENGL MATH BIOL	262 102	English Literature II Elective* General Biology II	3 3
or CHEM ECON	112 212	General Chemistry II Principles of Enconomics II Elective**	4 3 3
		Total	16
		SIXTH QUARTER	
ENGL MATH BIOL	263 103	English Literature III Elective* General Biology III	3 3
or CHEM ECON	113 213	General Chemistry III Principles of Economics III Electives**	4 3 3
	,	Total	16
	11		

^{*}Mathematics elective may be either a second science or mathematics sequence.

Total Minimum Credits for a Science Major

^{**}Students are to consult with their counselor in the choice of all electives.

Pre-Teacher Education

Degree: Associate in Science

Length: Six-quarter (two-year) program

Purpose: With the rapid development and emphasis on education in Virginia there is a great demand for qualified teachers and other educational specialists to help provide leadership for the schools.

The Associate in Science degree program in Pre-Teacher Education is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program in Teacher Education.

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admission requirements in Part II of this catalog), entry into the Associate in Science degree program in Pre-Teacher Education requires the satisfactory completion of the following high school units; or equivalent, as a minimum:

- 4 units of English
- 2 units of mathematics (algebra and geometry)*
- 1 unit of laboratory science
- 1 unit of social studies

Students who do not meet these requirements may be permitted to correct their deficiencies in the Preparatory Foundations Program before entering the Pre-Teacher Education curriculum.

Program Requirements: The modern education world demands that its teachers and staff be knowledgeable both in the subjects they plan to teach and in general education. Thus,

^{*}Students are urged to check the mathematics requirements of the fouryear college or university to which they plan to transfer to determine the proper mathematics course to be taken in the community college.

this curriculum requires courses in the humanities, natural sciences, and mathematics, social sciences, and health and physical education in addition to general psychology usually required in the first two years of a baccalaureate teacher education curriculum. The Pre-Teacher Education curriculum is designed to lead the student toward meeting the state teacher certification requirements for a Collegiate Professional Certificate. Eligible students may also qualify for the State Teachers' Scholarships. Each student is urged to acquaint himself with the requirements of the major department in the college or university to which transfer is contemplated and also, to consult with the Counseling Department of the Community College in planning his program and selecting his electives. In order to help prepare for upper division (junior class) standing at a four-year college or university, the student usually must complete a program at the Community College that is comparable in length and courses to the first two years of the program at the four-year college or university. Upon completion of the program, the student will be awarded the Associate in Science degree with a major in Pre-Teacher Education.

PRE-TEACHER EDUCATION

Associate in Science Degree Program

~		Course		
Course Number	FIRST QUARTER			
ENGL HIST MATH or	111 111 161	English Composition I American History I College Mathematics I	3 3	
MATH BIOL or	181 101	General College Mathematics I General Biology I	3	
CHEM	111	General Chemistry I Elective*	4 3	
GENL	100	Orientation Total	$\frac{1}{17}$	
		IUlai	11	

SECOND QUARTER

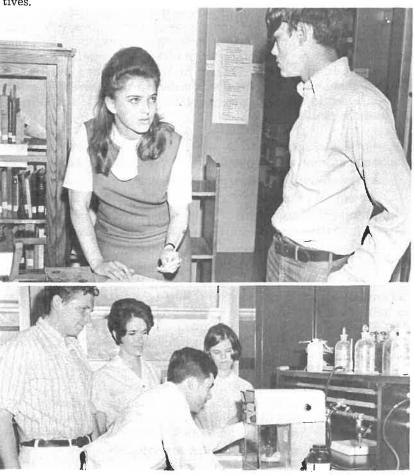
ENGL	112	English Composition II	3
HIST MATH	$\frac{112}{162}$	American History II College Mathematics II	3
or			
MATH BIOL	182 102	General College Mathematics II General Biology II	3
or CHEM	112	General Chemistry II	4
PHED		Elective* Physical Education Elective	3 1
		Total	17
		THIRD QUARTER	
ENGL	113	English Composition III	3
HIST	113	American History III	3
MATH	163	College Mathematics III	
or MATH	183	General College Mathematics III	3
BIOL	103	General Biology III	
Or CITEDA	110	Company Chamisters III	4
CHEM	113	General Chemistry III Elective*	3
		2200170	_
		Total	17.
		FOURTH QUARTER	
ENGL	261	English Literature I	3 3
PSYC	201 281	General Psychology I United States Government I	3
GOVT or	201	Office States Government 1	
ECON	211	Principles of Economics I	3
DIVED		Elective* Physical Education Elective	3 1
PHED		Physical Education Elective	<u> </u>
		Total	16
		FIFTH QUARTER	
ENGL	262	English Literature II	3
PSYC	212	General Psychology II	3
GOVT	282	United States Government II	
or ECON	212	Principles of Economics II	3
HOOM		Elective*	6
	•	m (.)	15
		Total	15

SIXTH QUARTER

ENGL PSYC GOVT or	263 203 283	English Literature III General Psychology III United States Government III	3 3
ECON	213	Principles of Economics III Electives*	3 6
		Total	 15

Total Minimum Credits for a Pre-Teacher Education Major 97

 * Students are to consult with their counselor in the choice of all electives.



Pre-Engineering

Degree: None—This program represents the first year of a four-year baccalaureate degree program

Length: Three quarters

Purpose: The demand for technically trained people is increasing rapidly in Virginia as well as throughout the world. The engineer is a most important member of the technical team, which includes the scientist, technician, and skilled craftsman. Opportunities are unlimited for men and women in the field of engineering. Science is so diversified now that one may enter almost any special field and find employment. The preparation for the engineering profession is based on a vigorous program, especially in mathematics and science.

The Pre-Engineering Program is designed for persons who plan to transfer to a four-year college or university to complete a baccalaureate degree program in one of the following engineering fields:

Aerospace Engineering
Agricultural Engineering
Architectural Engineering
Ceramic Engineering
Chemical Engineering
Civil Engineering
Electrical Engineering

Engineering Mechanics
Industrial Engineering
Mechanical Engineering
Metallurgical Engineering
Mining Engineering
Nuclear Engineering

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admission requirements in Part II of this catalog), entry into the Pre-Engineering Program requires the satisfactory completion of the following high school units or equivalent as a minimum:

- 4 units of English
- 4 units of mathematics (2 units of algebra, 1 unit of plane geometry, 1 unit of advanced math or trigonometry and solid geometry)
- 1 unit of a laboratory science
- 1 unit of social studies

Students who do not have an adequate foundation in English grammar and composition to enroll in ENGL 113 (the beginning English course for pre-engineering majors), as indicated by high school grades and test scores, may first have to complete ENGL 111 and 112. Students who do not meet the requirements listed above may be permitted to correct their deficiencies in the Preparatory Foundations Program before entering the Pre-Engineering Program.

Program Requirements: This program includes the English and humanities, mathematics, science, social science, and introductory engineering courses usually required in the first year of a baccalaureate engineering curriculum. Each student is urged to acquaint himself with the requirements of the major department in the college or university to which he expects to transfer and also to consult with the Counseling Department of the Community College in planning his program and selecting his electives.

PRE-ENGINEERING

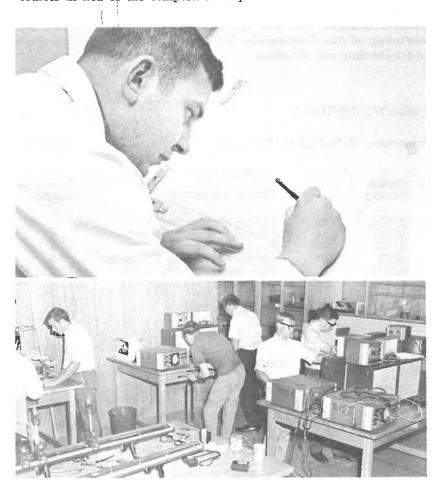
One-year, Non-degree Program

		Course Title	
Course Number		FIRST QUARTER	Course Credits
ENGL CHEM ENGR HIST MATH GENL	111 111 121 101 141 100	English Composition I* General Chemistry I Engineering Graphics I History of Western Civilization I Math Analysis I Orientation Total	3 4 2 3 5 1 —
		SECOND QUARTER	
ENGL CHEM ENGR HIST MATH PHED	112 112 122 102 142	English Composition II General Chemistry II Engineering Graphics II History of Western Civilization I Math Analysis II Physical Education Elective	3 3 2 1 3 5 1
		Total	18

THIRD QUARTER

ENGL CHEM ENGR MATH HIST	113 113 123 143 103	English Composition III General Chemistry III Descriptive Geometry Math Analysis III History of Western Civilization III Total	3 4 3 5 3 —
		Total Minimum Credits	54

*Entering students may petition for advanced placement in English composition. If approved the student will be required to complete literature courses in lieu of the composition requirement.



Business Management

Degree: Associate in Applied Science

Length: Six-quarter (two-year) program

Purpose: With the rapid development of business and industry in Virginia there is a great demand for qualified personnel to assist business management. The Associate in Applied Science degree program in Business Management is designed primarily for persons who seek full-time employment in business management immediately upon completion of the community college program. Both persons who are seeking their first employment in a managerial position or those presently in management who are seeking a promotion may benefit from this program.

Occupational Objectives:

Administrative Assistant Junior Executive

Manager of Business Office

Manager of Small Business Office Assistant Supervisor

Admission Requirements: In addition to the admission requirements established for the college (as listed in the section on admission requirements in Part II of this catalog), entry into the Associate in Applied Science degree program in Business Management requires proficiency in high school English and high school mathematics. Students who are not proficient in English and mathematics will be required to correct their deficiencies in the Preparatory Foundations Program before entering the Business Management curriculum.

Program Requirements: The first three quarter (first year) of the Associate in Applied Science degree program in Business Management is similar to the program in Accounting. However, in the second year each student will pursue his specialty. Approximately one-half of the curriculum will include courses in business management with the remaining courses in related subjects, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success. Each student is urged to consult with the Counseling Department and his faculty advisor in planning his program and selecting his electives. Upon completion of the program the student will be awarded the Associate in Applied Science degree with a major in Business Management.

Advisory Committee in Business Programs:

Mr. Harry K. W	/illiams
Data Processing	and Systems
Manager	
Westvaco	
Covington	

Mr. Paul Sailer Manufacturing Controller Lees Carpets Glasgow

Mrs. Harriet H. Bush Business Education Teacher Alleghany County High School Covington Mr. William Wagner Personnel Manager Modine Manufacturing Company Buena Vista

Mrs. Rorer E. Clift Business Education Teacher Clifton Forge High School Clifton Forge Mr. W. Pembroke Hall Chief Clerk C & O Railway Company Clifton Forge

Mr. Ralph E. Helmintoller Personnel Director

Mr. Donald Byrd Office Superintendent Hercules Covington

Personnel Director The Homestead Hot Springs

BUSINESS MANAGEMENT

Associate in Applied Science Degree Program

Course Title				
Course Number		FIRST QUARTER	Course Credits	
SECR	111	Typewriting*	3	
BUAD	111	Accounting I	4	
BUAD	156	Office Machines	2	
ENGL	101	Communication Skills I	3	
MATH	151	Business Mathematics I	3	
GENL	100	Orientation	1	
		Total	16	

SECOND QUARTER

	BUAD BUAD ECON ENGL MATH PHED	112 100 160 102 152	Accounting II Introduction to Business American Economics Communication Skills II Business Mathematics II Health, Physical Ed. or Recreation Total	4 3 3 1 — 17
			THIRD QUARTER	
	BUAD BUAD ECON NASC BUAD PHED	106 113 100 170	Office Procedures Accounting III Economics Electives** Survey of Science Business Organization & Management Health, Physical Ed. or Recreation	_1
			Total	17
			FOURTH QUARTER	
-	BUAD BUAD DAPR ENGL PSYC	241 294 106 136 128	Business Law I Introduction to Business Statics Principles of Data Processing Speech Communications Human Relations	3 3 3 - 15
			Total	19
			FIFTH QUARTER	
	BUAD BUAD BUAD GOVT PSYC PHED	240 242 180 226	Business Finance Business Law II BUAD Elective** American Constitutional Government Psych. Aspects of Management Health, Physical Ed. or Recreation	3 3 3 3 1
			Total	16
			59	

SIXTH QUARTER

BUAD BUAD BUAD BUAD	246 286 299	BUAD Elective** Money and Banking Personnel Management Seminar & Project in	3 3 3
ENGL		Business Management Business English Elective	2 3 2- 3
		Total	16-17
		Total Minimum Credits for Degree	97

*Waiver may be granted for the student who has satisfactorily completed one year of typing in high school or who demonstrates equivalent competence.

**The student is to consult with his counselor on his choice of all electives.



Drafting and Design Technology

Degree: Associate in Applied Science

Length: Six-quarter (two-year) program

Purpose: There is a need for qualified draftsmen to work with engineers, industry, and civil service agencies. The Associate in Applied Science degree curriculum in Drafting and Design Technology is designed to train persons for full-time employment immediately upon completion of the community college program. A student who completes the program is capable of skilled, neat, rapid lettering and line work, as well as making the complete and accurate detail and assembly drawings expected of a beginning draftsman.

Occupational Objectives:

Drafting Supervisor Draftsman

Fixture Design Draftsman Machine Design Draftsman

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admissions requirements in Part II of this catalog), entry into the Associate in Applied Science curriculum in Drafting and Design Technology requires proficiency in high school English, mathematics and science including one unit of algebra. Students who are not proficient in these subject areas will be required to correct their deficiencies in a Preparatory Foundations Program before entering the curriculum.

Program Requirements: Approximately one-half of the curriculum will include courses in drafting and design technology with the remaining courses in related subjects, general education, and electives. Instruction will include both theoretical concepts and practical applications needed for future success in drafting and design technology. Each student is advised to consult with his faculty advisor and the Counseling Department in planning his program and selecting his electives. Upon completion of the program, the student will be awarded the Associate in Applied Science degree with a major in Drafting and Design Technology.

Advisory Committee for Drafting Programs:

Mr. John H. Dobbins Engineer C & O Railway Company Clifton Forge	Mr. Ashton L. Trice District Engineer Virginia Electric and Power Co. Clifton Forge
Mr. Sheldon G. Mader Engineer Westvaco Covington	Mr. F. W. Person Plant Manager Modine Manufacturing Company Buena Vista
Mr. Thomas V. McClure General Manager Lees Carpets Glasgow	Mr. Otto Rantz Engineer H. O. Canfield Co., Inc. Clifton Forge

Mr. Jean Anderson Industrial Arts Teacher Alleghany High School Covington

DRAFTING AND DESIGN TECHNOLOGY

Associate in Applied Science Degree Program

Course Number		-	Course Credits
DRFT MATH DRFT INDT ENGL GENL PHED	111 111 171 111 101 100	Drafting I Technical Mathematics I Blueprint Reading I Materials & Process of Industry I Communication Skills I Orientation Health, Physical Ed., and Recreation	2 3 2 3 1 n 1
		Total	10
		SECOND QUARTER	
DRFT MATH PHYS INDT ENGL PHED	112 112 101 112 102	Drafting II Technical Mathematics II Introductory Physics I Materials & Process of Industry II Communication Skills II Health, Physical Ed. and Recreation	3
		Total	16

THIRD QUARTER

DRFT MATH PHYS INDT GOVT ECON	113 113 102 176 180 160	Drafting III Technical Mathematics III Introductory Physics II Industrial Safety American Constitutional Governmen American Economics Total	$ \begin{array}{c} 2 \\ 3 \\ 4 \\ 2 \\ 17 \end{array} $
		FOURTH QUARTER	
DRFT PHYS DRFT ENGL PSYC PHED	211 103 136 128	Drafting IV Introductory Physics III Drafting Elective Speech Communications Human Relations Health, Physical Ed. and Recreation Total	$ \begin{array}{r} 3 \\ 4 \\ 2 \\ 3 \\ \hline 1 \\ \hline 16 \end{array} $
		FIFTH QUARTER	
DRFT ENGR MECH PSYC	212 151 218 226	Drafting V Mechanics I (Statics) Jig & Fixture Design Psychological Aspects of Managemen Elective Total	3 3 3 4 3 15
		SIXTH QUARTER	
DRFT ENGR INDT INDT DRFT	213 152 226 270 299	Drafting IV Mechanics II (Strength of Materials) Plant Layout Industrial Management Seminar and Project in Drafting and Design Technology Elective* Total	$ \begin{array}{c} 3 \\ 4 \\ 3 \\ 3 \\ \hline $
		Total Minimum Credits for Degree	97

^{*}The student is to consult with his counselor in his choice of all electives.

Electronics Technology

Degree: Associate in Applied Science

Length: Six-quarter (two-year) program

Purpose: With the rapid growth of the electronics and manufacturing industries in Virginia, and steady demand for qualified electronic technicians in the local area, there is a need for trained personnel to meet these requirements. The Associate in Applied Science degree curriculum in Electronics Technology is designed to train persons for full-time employment immediately upon completion of the Community College curriculum offering.

Occupational Objectives:

Communications Technician
Electronics Technician
Industrial Electronics Technician
Instrument Technician
Radio and Television Technician
Laboratory Technician

Admission Requirements: In addition to the admission requirements established for the College (as listed in the section on admissions requirements in Part II of this catalog), entry into the Associate in Applied Science curriculum in Electronic Technology requires proficiency in high school English, mathematics and science including one unit of algebra. Students who are not proficient in these subject areas will be required to correct their deficiencies in a Preparatory Foundations Program before entering the curriculum.

Program Requirements: The curriculum in Electronics is a two-year program combining instruction in the many subject areas required for competence as a Technician in industry. The first year of the Electronics Technology curriculum is designed to establish a general base in mathematics and electronic circuits and networks. The second year develops this

base in a number of important areas of electronics, such as computers, control circuits, measurements, and communications. The graduate should have sufficient background, both in depth and diversity, to allow him employment in any area of the electronics field as a technician. Approximately one-half of the curriculum will include courses in electronics technology with the remaining courses in related subjects, general education, and electives. Instruction will include both the theoretical concepts and practical applications needed for future success in Electronics Technology. Students are permitted a choice of electives in the second year. These electives should be carefully chosen to develop further skill and competence in either communication networks or specialized Industrial Controls. Each student is advised to consult with his faculty advisor and the Counseling Department in planning his program and selecting his electives. Upon completion of the program the student will be awarded the Associate in Applied Science degree with a major in Electronics Technology.

Advisory Committee for Electronics Programs:

Mr. Roger J. Jensen Electrical Engineer Hercules Inc. Covington, Va. Mr. R. L. Loving, Jr. Industrial Arts Teacher Covington High School Covington, Va.

Mr. J. A. Johnson
Assistant Supervisor,
Communications
C & O Railway Company
Clifton Forge, Va.

Mr. Richard K. Keith Instrument Engineer Westvaco Covington, Va.

ELECTRONICS TECHNOLOGY

Associate in Applied Science Degree Program

~		Course Title	
Course Number		FIRST QUARTER	Course Credits
DRFT DRFT ELEC ENGL MATH GENL PHED	111 171 114 101 111 100	Drafting I Blueprint Reading I Fundamentals of Direct Current Communications Skills I Technical Mathematics I Orientation Physical Education Elective* Total	3 2 4 3 3 1 1 7
		SECOND QUARTER	
ECON ELEC ENGL MATH PHYS	160 115 102 112 101	American Economics Fundamentals of Alternating Curr Communications Skills II Technical Mathematics II Introductory Physics I Total	3 3 3 4 — 17
		THIRD QUARTER	
ELEC ELEC MATH PHYS PHED	120 124 113 102	Tubes and Transistors Electronics I Technical Mathematics III Introductory Physics II Physical Education Elective Total	4 5 3 1 1 16
		FOURTH QUARTER	
ELEC ELEC GOVT SPDR	116 126 180 136	Circuit Analysis Amplifiers American Constitutional Governm Speech Communications Electives*	3 3
		Total	17

FIFTH QUARTER

ELEC ELEC ELEC PSYC DRFT PHED	227 241 276 128 256	Pulse and Switching Circuits Communications I Instruments and Measurements Human Relations Electronics Drafting Physical Education Elective*	3 4 4 3 2 1
		Total	17
		SIXTH QUARTER	
ELEC	242	Communications II	4
ELEC ELEC	287 299	Advanced Circuits & New Devices Seminar & Project in Electrical	2
		Technology	2
		Electives*	7
		Total	15

Total Minimum Credits for an Electronics Major 9

*The student is to consult with his counselor on his choice of all electives.



Forest Technology

Degree: Associate in Applied Science

Length: Seven-quarter (two-year program)

Purpose: Forestry and forestry-related industries are vital to the economy of the State. This, combined with the rapid increase in forest utilization has resulted in the need for formally trained forest technicians. The Associate in Applied Science degree program in Forest Technology is designed for persons who seek full-time employment in forestry immediately upon completion of the two-year program. Graduates from the program will be qualified to assist professional foresters in the implementation of forest management plans in both public and private forests.

Occupational Objectives:

Forestry Technician Forestry Aids Forest Surveying Aide Foreman Scaler

Admission Requirements: In addition to the general admission requirements for the College, entry into the program requires proficiency in high school English, mathematics, and science. The applicant should have completed mathematics through geometry as well as one laboratory science while in high school. High school record and standard test scores should have placed him above the 25th percentile on national norms. Students who do not meet these standards may be required to correct their deficiencies in the Preparatory Foundations Program before entering this curriculum.

Program Requirements: The first three quarters of the program can be taken at any of the community colleges in the state. Courses to be completed during this period provide both general education subjects as well as the supporting technologies of business and drafting. Beginning the summer following the first year, the student will be required to be in residence at Dabney S. Lancaster Community College for a full calendar year. During this time the student will receive

instruction in technical forestry subjects. In addition to field trips to forestry activities in the immediate area of the College, the student will take two extended trips to other forest type areas of the state. Upon completion of the program, the student will be awarded the Associate in Applied Science degree with a major in Forest Technology.

Advisory Committee for Forest Technology:

Mr. Frank Atchley, Executive Director Lumber Manufacturers' Association of Virginia, Inc. 220 East Williamsburg Road Sandston, Virginia 23150

Mr. Julian M. Campbell, Supervisor of Agriculture Division of Education 1322 E. Grace Street Richmond, Virginia 23219

Mr. William Cooper, Executive Director Virginia Forests, Inc. 301 East Franklin Street Richmond, Virginia 23219

Mr. G. W. Dean, State Forester State of Virginia McCormick Road Charlottesville, Virginia 22901

Dr. John Hosner, Head of Department Forestry and Wildlife Management Virginia Polytechnic Institute Blacksburg, Virginia 24060

Mr. Ed Matics, Wood Procurement Superintendent West Virginia Pulp and Paper Company Covington, Virginia 24426

Mr Ralph Moyle, Supervisor Jefferson National Forest Roanoke, Virginia 24000

Mr. James O'Keefe, Supervisor George Washington National Forest Harrisonburg, Virginia 22801

Mr. Billy Paige, District Ranger James River District George Washington National Forest Covington, Virginia 24426

FOREST TECHNOLOGY

Associate in Applied Science Degree Program

		Course Title	_
Course Number		FIRST QUARTER	Course Credits
ENGL MATH BUAD DRFT BIOL GENL PHED	101 111 156 111 101 100	Communication Skills I Technical Mathematics I Office Machines Drafting I (or DRFT Elective)* General Biology I (or BIOL Election Electives**	3 3 2 2 2 2 1 1
		Total	16
		SECOND QUARTER	
ENGL MATH BUAD BUAD ECON PHED	102 112 100 121 160	Communication Skills II Technical Mathematics II Introduction to Business Record Keeping American Economics Electives**	3 3 3 3 1
		Total	16
		THIRD QUARTER	
ENGL MATH DAPR PSYC GOVT PHED	136 113 106 128 180	Speech Communications Technical Mathematics III Principles of Data Processing Human Relations American Government Electives**	3 3 3 3 1
		Total	16
		SUMMER QUARTER	
CIVL FORE FORE FORE	184 100 117 121 197	Land Surveying Introduction to Forestry Dendrology Forest Fire Control Forest Practicum Total	5 4 4 3 1 —
		TOTAL	

FIFTH QUARTER

280 201 118 131	Advanced Surveying Forest Mensuration I Applied Silviculture Wildlife and Fisheries Management Total	4 4 4 4 ——————————————————————————————
	SIXTH QUARTER	
202 207 247 241 122	Forest Mensuration II Aerial Photo Interpretation Timber Harvesting Forest Products I Forest Protection Total	4 3 4 3 3
	SEVENTH QUARTER	
230 132 242	Forest Management Forest Recreation Forest Products II Electives** Total	4 4 4 4 16
	201 118 131 202 207 247 241 122	201 Forest Mensuration I 118 Applied Silviculture 131 Wildlife and Fisheries Management Total SIXTH QUARTER 202 Forest Mensuration II 207 Aerial Photo Interpretation 247 Timber Harvesting 241 Forest Products I 122 Forest Protection Total SEVENTH QUARTER 230 Forest Management 132 Forest Recreation 242 Forest Products II Electives**

Total Minimum Credits for Degree 110

^{*}The Biology requirement may be waived if the student has successfully completed one year of high school biology.

^{**}The student is to consult with his counselor on the choice of all electives

Secretarial Science

Degree: Associate in Applied Science

Length: Six-quarter (two-year) program

Purpose: There is a steady demand for qualified secretaries, stenographers, typists, and office machine operators in Virginia. The Associate in Applied Science degree curriculum in Secretarial Science is designed to prepare persons for fultime employment immediately upon completion of the community college curriculum offerings:

Occupational Objectives:

Executive Secretary
Legal Secretary
Legal Stenographer
Office Machine Operator
Technical Secretary in
Industry
Technical Stenographer

General Secretary
Legal Office Manager
Medical Secretary
Stenographer
Technical Secretary in
Research

Admission Requirements: In addition to the general admission requirements for the College, entry into the program requires proficiency in high school English and mathematics. Students who are not proficient in these subject areas will be required to correct their deficiencies in a Preparatory Foundation Program before entering the curriculum. In addition, students who have had some training in shorthand and typewriting may be granted advanced placement upon acceptance into the department. The student's achievement record in the prior courses will be the major basis upon which advanced standing may be granted.

Program Requirements: The curriculum in Secretarial Science is a two-year curriculum combining instruction in the many subject areas required for competence as a secretary in business, government, industry, law offices, and other organizations. Approximately one-half of the curriculum will include courses in secretarial science with the remaining courses in related subjects, general education and electives. Students

who receive a grade lower than "C" in any shorthand or typewriting will be required to repeat the course and earn a grade of "C" or higher before registering for the next course in sequence. Upon completion of the curriculum the student will be awarded the Associate in Applied Science degree with a major in Secretarial Science

Advisory Committee in Business Programs:

Mrs. Harriet H. Bush Business Education Teacher Alleghany County High School Covington

Mr. Harry K. Williams
Data Processing and Systems
Manager
Westvaco
Covington

Mrs. Rorer E. Clift Business Education Teacher Clifton Forge High School Clifton Forge

Mr. Ralph E. Helmintoller Personnel Director The Homestead Hot Springs Mr. Paul Sailer Manufacturing Controller Lees Carpets Glasgow

Mr. W. Pembroke Hall Chief Clerk C & O Railway Company Clifton Forge

Mr. Donald Byrd Office Superintendent Hercules Covington

SECRETARIAL SCIENCE

Associate in Applied Science Degree Program

First Year

Completion of the curriculum in Steno-Clerical Arts and Recommendation of Business Department

Course Title				
Course Credits				
3				
3				
2				
3				
3				
3				
17				

FIFTH QUARTER

SECR SECR SECR BUAD BUAD PHED	222 242 266 100 242	Shorthand Transcription II Secretarial Procedures II Machine Transcription Introduction to Business Business Law II Physical Education Elective	3 3 3 3 1- 2
		Total	16-17

SIXTH QUARTER

SECR SECR	223 243	Shorthand Transcription (General) Secretarial Procedures III	3
SECR	217	Typewriting Skill Building	2
SECR	299	Seminar & Project in Secretarial	
		Science	2
BUAD	170	Business Organization & Managemen	ıt 3
ENGL	280	Business English	3
PHED		Physical Education Elective	1
		Total	17

Total Minimum Credits for Degree 101

^{*}Students are to consult with their counselor in the choice of all electives.

Drafting

Certificate: Certificate in Drafting

Length: One year program

Purpose: With the rapid growth of industry in Virginia, and the steady demand for qualified draftsmen in the local area, there is a need for training personnel to meet these requirements. The curriculum in Drafting is designed to train persons for full-time employment immediately upon completion of the community college curriculum offering.

Occupational Objectives: Draftsmen

Admission Requirements: Admission to the program, in addition to the requirements for general admission to the College, require that the student show satisfactory aptitude for drawing as measured by appropriate tests administered by the College counseling department.

Program Requirements: The Drafting Program is designed to prepare students to work as draftsmen and to provide the student with an introduction to the basic problems associated with design and manufacturing of mechanical devices. The curriculum includes basic courses in the humanities (English, government and psychology) to assist the student in social and business communications and to prepare the student to meet the obligations of the citizen in our democratic society.

Students successfully completing the program in Drafting receive a Certificate of Completion. Job opportunities for draftsmen exist in many areas, primarily in the manufacturing industries.

Advisory Committee for Drafting Programs:

Mr. John H. Dobbins Engineer Chespeake and Ohio Clifton Forge, Va.

Mr. Sheldon G. Mader Engineer Westvaco Covington, Va. Mr. Ashton L. Trice District Engineer Virginia Electric and Power Co. Clifton Forge, Va.

Mr. F. W. Person Plant Manager Modine Manufacturing Company Buena Vista, Va. Mr. Thomas V. McClure Lees Carpet Glasgow, Va. Mr. Otto Rantz H. O. Canfield Company, Inc. Clifton Forge, Va.

Mr. Jean Anderson Alleghany County High School Covington, Va.

DRAFTING

Certificate Curriculum

		Course Title	
Course Number		FIRST QUARTER	Course Credits
DRFT DRFT INDT MATH GENL ENGL	111 171 111 111 100 101	Drafting I Blueprint Reading I Materials and Processes of Industr Technical Math I Orientation Communication Skills I	2 2 ry I 3 3 1 3
		Total	14
		SECOND QUARTER	
DRFT INDT MATH ENGL ECON	112 112 112 102 160	Drafting II Materials and Processes of Indust Technical Math II Communication Skills II American Economics	ry II 3 3 3 3
		Total	14
		THIRD QUARTER	
DRFT GOVT	113 180	Drafting III American Constitutional Governm Approved Electives*	2 nent 3 10
		Total	15
		FOURTH QUARTER	
DRFT PSYC	211 128	Advanced Drafting IV Human Relations Total	3 6
	T	otal Minimum Credits for Certificate	49

^{*}The student is to consult with his counselor on the choice of all electives.

Electronics

Certificate: Certificate in Electronics

Length: Four quarter program

Purpose: Modern manufacturing methods and techniques require extensive use of electronics equipment. This electronic equipment is used both for control and other purposes. The Certificate in Electronics curriculum is designed to train individuals to service and maintain the electronics equipment. Graduates from the program will be qualified for full employment in this field upon completion of the curriculum.

Occupational Objectives:

Electronics Repairman Electronics Installer Electronics Machine Operator

Admission Requirements: In addition to the regular college admission requirements, the student is expected to have a degree of competence in mathematics and science. Students who are not proficient in these areas will be required to correct their deficiencies in the Preparatory Foundation Program before entering the curriculum.

Curriculum Requirements: The Certificate in Electronics curriculum includes the basic courses in humanities (English, government, economics, and psychology), in addition to specialty courses. The program of studies is designed to assist the student in meeting both the skilled requirements of the job and in meeting his obligations as a citizen in our democratic society.

Upon completion of the program, the student will receive a Certificate. Job opportunities for the graduates exist in many areas.

Advisory Committee for Electronics Programs:

Mr. Roger J. Jensen Electrical Engineer Hercules Inc. Covington, Va. Mr. R. L. Loving, Jr. Industrial Arts Teacher Covington, Va. Covington High School Mr. J. A. Johnson
Assistant Supervisor,
Communications
C & O Railway Company
Clifton Forge, Va.

Mr. Richard K. Keith Instrument Engineer Westvaco Covington, Va.

ELECTRONICS

Certificate Curriculum

Course Title				
Course Number		FIRST QUARTER	Course Credits	
DRFT ELEC ENGL GENL INDT MATH	111 011 101 100 111 001	Drafting I Basic Electricity Communication Skills I Orientation Materials and Processes of Industry Developmental Mathematics I	2 4 3 1 y I 3 3	
		Total	18	
		SECOND QUARTER		
DRFT ECON ELEC ENGL MATH PHED	171 160 012 102 111	Blueprint Reading I American Economics Basic Electricity Communication Skills II Technical Math I Physical Education Elective* Total	2 3 4 3 3 1 —	
		THIRD QUARTER		
INDT ELEC GOVT ENGL MATH PHED	176 021 180 136 112	Plant Safety Basic Electronics American Constitutional Governme Public Speaking Technical Mathematics II Physical Education Elective*	2 4 ent 3 3 3	
		Total	16	
FOURTH QUARTER				
ELEC PSYC ELEC	120 128	Introduction to Tubes and Transist Human Relations Electronic Electives	ors 4 3 8	
		Total	15	
10	T	otal Minimum Credits for Certificate	65	

^{*}The student is to consult with his counselor on his choice of all electives.

Office Management

Certificate: Certificate in Office Management

Length: Three-quarter program

Purpose: There is a steady demand from industry for general office personnel. The Office Management Curriculum is designed to train individuals for these positions. Graduates from the program will be qualified for full-time employment upon completion of the curriculum.

Occupational Objectives:

Bookkeeper Administrative Assistant Office Assistant

Admission Requirements: Admission to the program, in addition to the general admission requirements of the College, requires that the student show satisfactory aptitude for general office work.

Curriculum Requirements: The Office Management Program is designed to prepare students to work as office assistants and to provide them with an introduction to typical procedures of the modern office. The curriculum includes basic courses in the humanities (English, government, economics, and psychology) to assist the student in social and business communications and to prepare the student to meet the obligations of the citizen in our democratic society.

Upon satisfactory completion of the program, the student will be awarded a Certificate of Completion.

Advisory Committee in Business Programs:

Mr. Harry K. Williams
Data Processing and Systems
Manager
Westvaco
Covington

Mr. Paul Sailer Manufacturing Controller Lees Carpets Glasgow

Mrs. Harriet H. Bush Business Education Teacher Alleghany County High School Covington Mr. William Wagner Personnel Manager Modine Manufacturing Company Buena Vista Mrs. Rorer E. Clift Business Education Teacher Clifton Forge High School Clifton Forge

Mr. Ralph E. Helmintoller Personnel Director The Homestead Hot Springs Mr. W. Pembroke Hall Chief Clerk C & O Railway Company Clifton Forge

Mr. Donald Byrd Office Superintendent Hercules Covington

OFFICE MANAGEMENT

Certificate Curriculum

		Course Title	
Course Number		Course Credits	
BUAD BUAD MATH GENL ENGL	111 156 151 100 101	Accounting I Office Machines Business Mathematics Orientation Communication Skills I Approved Electives*	4 2 3 1 3 3
		Total	16
		SECOND QUARTER	
BUAD BUAD MATH	112 100 152	Accounting II Introduction to Business Business Mathematics (or BUAD elect.)	4 3
ECON ENGL	160 102	American Economics Communication Skills II	3 3 3
		Total	16
		THIRD QUARTER	
ENGL BUAD GOVT PSYC	102 113 180 128	Accounting III American Constitutional Govern Human Relations Approved Electives*	nment 3 3 7
		Total	17

Total Minimum Credits for Certificate 49

^{*}Approved electives are generally restricted to BUAD and SECR courses. The student is to consult with his counselor on his choice of all electives.

Steno-Clerical Arts

Certificate: Certificate in Steno-Clerical Arts

Length: Three quarter (one year) program

Purpose: With the rapid growth of industry and business in Virginia, and the steady demand for qualified clerk-stenogrophers in the area, there is a need for training personnel to meet these requirements. The Steno-Clerical Curriculum is designed to train persons for full-time employment upon completion of the community college curriculum.

Occupational Objectives:

Stenographer Office Clerk
Typist Office Assistant

Admission Requirements: In addition to the general admission requirements of the College, entry into the Steno-Clerical Curriculum requires proficiency in high school English and mathematics. Students who are not proficient in these subject areas will be required to achieve the necessary background in the Preparatory Foundation Program. In addition, students who have had some training in shorthand and typwriting may be granted advanced placement upon acceptance in the department.

Curriculum Requirements: The curriculum in Steno-Clercial Arts is a one-year curriculum combining instruction in the many subject areas required for competence as a secretary in business, Government, industry, and other organizations. Approximately one-half of the curriculum will include courses in secretarial science with the remaining courses in related subjects, general education, and electives. Students who receive a grade lower than "C" in any shorthand or typewriting class will be required to repeat the course and to earn a grade of "C" or higher before registering for the next course in the sequence. The Curriculum is similar to the first three quarters in the Secretarial Science Program. Upon completion of the curriculum the student will receive a Certificate of Completion.

Advisory Committee in Business Programs:

Mr. Harry K. Williams
Data Processing and Systems
Manager
Westvaco
Covington

Mr. Paul Sailer Lees Carpets Manufacturing Controller Glasgow

Mrs. Harriet H. Bush Business Education Teacher Alleghany County High School Covington

Mr. William Wagner Personnel Manager Modine Manufacturing Company Buena Vista

Mrs. Rorer E. Clift Business Education Teacher Clifton Forge High School Clifton Forge

Mr. W. Pembroke Hall Chief Clerk C & O Railway Company Clifton Forge

Mr. Ralph E. Helmintoller Personnel Director The Homestead Hot Springs

Mr. Donald Byrd Office Superintendent Hercules Covington

STENO-CLERICAL ARTS

Certificate Curriculum

Comme			
Course Number		Course Credits	
SECR SECR BUAD MATH ENGL GENL	111 121 156 151 101 100	Typewriting I* Shorthand I* Office Machines Business Mathematics Communications Skills I Orientation Total	$ \begin{array}{c} 3 \\ 4 \\ 2 \\ 3 \\ 3 \\ 1 \\ \hline 16 \end{array} $
GROD		SECOND QUARTER	
SECR SECR BUAD ENGL GOVT PHED	112 122 121 102 180	Typewriting II* Shorthand II* Record Keeping Communications Skills II American Government Physical Education Elective	3 4 3 3 1
		Total	17

THIRD QUARTER

SECR	113	Typewriting III Shorthand III Personal Development** Filing and Record Management American Economics Human Relations	3
SECR	123		4
SECR	156		3
SECR	136		2
ECON	160		3
PSYC	128		3
		Total	-

Total Minimum Credits for Certificate 51

- *Students with previous training in these skills can waive one or more of these courses.
- **Required of female students only. Male students will substitute an approved elective.



Preparatory Foundations Program

Foundations and developmental programs are offered to help prepare individuals for admission to the occupational-technical program and to the university parallel-college transfer program in the Community College. These programs are designed to help the individual develop the basic skills and understandings necessary to succeed in other programs of the College.

The foundations program provides an opportunity to obtain needed knowledges and skills for an individual who is not fully prepared for entry into an associate degree program. Perhaps he has not had an opportunity to complete an appropriate educational course or program, or he has low achievement in his previous education. A student is placed in the foundations program after a close analysis of his high school transcript test scores, and other data available on his achievement level.

Through the use of specialized teaching methods and modern equipment with an extensive concentration upon laboratory experiences, the student may, through concentrated effort in the areas of his weakness, progress at his own rate. The student will be tested frequently for the purpose of showing him the progress he is making.

The student may use either of two approaches to improve his knowledge and skills in the foundations program. In one approach, he may enroll in the regular foundations courses scheduled each quarter at the Community College. In the other approach the student may utilize the materials and equipment in the Learning Laboratory for individual study of appropriate units or course materials in the areas of his deficiencies. Personnel in the Learning Laboratory or other faculty members of the College would be available to provide individualized assistance for the student. Progressing at his own rate, the student may complete the unit of study at any time that he demonstrates sufficient mastery of the subject to meet the minimum requirements for the unit or course.

A student in the foundation program may be taking all of his work at the foundation level or he may be taking some associate degree level courses for which he is qualified in addition to one or more foundation courses. Many of the foundation courses will provide credit applicable to the requirements of a diploma or certificate program. In addition, if the student takes any associate degree courses while in the foundation program, the credit earned in these courses may be transferred to an associate degree curriculum when the student is admitted to the associate degree curriculum and if the courses are applicable to the curriculum.

The student is urged to consult with the Counseling office of the College in planning his program and selecting his courses.

Co-operative Nursing Program

The Dabney S. Lancaster Community College cooperates with the Chesapeake and Ohio Hospital School of Nursing.

Students at the School of Nursing take one year of basic sciences and humanities at the college.

Students interested in nursing should contact the Associate Director, School of Nursing, Chesapeake and Ohio Hospital, Clifton Forge, Virginia 24422.

Police Science

Dabney S. Lancaster Community College gives instruction in Police Science in the evening program. The College does not grant degrees, diplomas, or certificates in this area. However, those courses which are taught can be transferred to institutions where the Associate in Applied Science degree with a major in Police Science is offered.

Special Training Programs

An important part of the community college philosophy centers around the concept of serving the community. Any community served by the college, if job opportunities warrant it, may apply for a special training program to be conducted by the College. These programs, which are usually of a short term nature, shall be tailored to fit the exact needs of a company and shall terminate when the immediate needs are met. The special training programs may be carried out at the College, or the individual company may request that a college instructor come to the industry to conduct the program.

Community Service Programs

The College considers community service programs an integral part of its function. These programs may include degree credit, non-degree credit courses, and special programs which are taken primarily for cultural enrichment. The community service programs are aimed at both adults and full-time students, and they help fulfill the belief that the College is to serve the entire community. Some examples of community service programs are:

Special short term courses which develop various skills

Non-credit art courses for adults and students

A cinema series featuring classic motion pictures

An annual arts festival which features local, state, national and international talent.

Part V

Description of Courses

Course Numbers

Courses numbered 000-099 are freshman level courses for the preparatory foundations program and for the occupational programs. The credits earned in these courses are applicable toward diploma and certificate programs but are not applicable toward an associate degree.

Courses numbered 100-199 are freshman level courses applicable toward an associate degree. They may also be used in certificate and diploma programs.

Courses numbered 200-299 are sophomore level courses applicable toward an associate degree. They may also be used in certificate and diploma programs.

Course Credits

The credit for each course is indicated after the title in the course description. One credit is equivalent to one collegiate quarter hour credit or two-thirds of a collegiate semester hour credit.

Course Hours

The number of lecture hours in class each week (including lecture, seminar, and discussion hours) and/or the number of laboratory hours in class each week (including laboratory, shop, supervised practice, and cooperative work experiences) are indicated for each course in the course description. The number of lecture and laboratory hours in class each week are also called "contact" hours because the time is spent under the direct supervision of a faculty member. In addition to the lecture and laboratory hours in class each week as listed in the course description, each student also must spend some time on out-of-class assignments under his own direction. Usually each credit per course requires an average of three hours of in-class and out-of-class work each week.

Prerequisites

If any prerequisites are required before enrolling in a course, these prerequisites will be identified in the course description. Courses in special sequences (usually identified by the numerals I-II-III) require that prior courses or their equivalent be completed before enrolling in the advanced courses in the sequence. When corequisites are required for a course, usually the corequisites must be taken at the same time. The prerequisites or their equivalent must be completed satisfactorily before enrolling in a course unless special permission is obtained from the Dean of Instruction and the instructor of the course.

AGRICULTURE

AGRI 018 LANDSCAPE GARDENING (3 cr.)—Introduction to landscape gardening including design, construction, planting, and maintenance of home gardens. The use of native materials in landscape design will be emphasized. Lectures 3 hours per week.

ARTS AND CRAFTS

ARTS 111-112-113 HISTORY AND APPRECIATION OF ART I-II-III (3 cr.) (3 cr.) (3 cr.)—The history and interpretation of architecture, sculpture and painting. The course begins with prehistoric art and follows the main stream of western civilization to the present. Lectures 3 hours per week.

ARTS 126 FREE-HAND SKETCHING (2 cr.)—Basic principles and practice in free-hand sketching. Laboratory 6 hours per week.

ARTS 196 ART WORKSHOP (2 cr.)—A workshop for individual special projects in arts and crafts. Laboratory 6 hours per week.

BIOLOGY

BIOL 101-102-103 GENERAL BIOLOGY I-II-III (4 cr.) (4 cr.) (4 cr.)—Fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Diversity of plant and animal life; evolutionary processes; adaptation of organisms to their environments. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

BIOL 154-155 HUMAN ANATOMY AND PHYSIOLOGY I-II (4 cr.) (4 cr.)—Structure and functioning of the normal human body, as a basis for understanding nursing theory and practice. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

BIOL 166 MICROBIOLOGY—(4 cr.)—The characteristics and activities of microorganisms, showing their essential relation to diagnosis, treatment and prevention of disease. Fundamentals of bacteriology, mycology and parasitology, emphasizing relationship to individual and community health. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

BUSINESS ADMINISTRATION

BUAD 100 INTRODUCTION TO BUSINESS (3 cr.)—Prerequisite ENGL 101 must have been taken previously or must be taken concurrently. An orientation course designed to give the student a general acquaintance with all types of business, organization, structure, legal aspects, and management operations. The various phases of business are studied from an operational point of view. Lectures 3 hours per week.

BUAD 106 OFFICE PROCEDURES (2 cr.)—This course is designed to enable the student to understand general office routines such as work flow, time scheduling, filing, and communications. Lectures 2 hours per week.

BUAD 111-112-113 ACCOUNTING I-II-III (4 cr.) (4 cr.) (4 cr.)—A course designed to provide an understanding of the fundamentals of accounting. Content includes the accounting cycle, journals, ledgers, work-

ing papers, and the preparation of financial statements under the various forms of business ownership. Lectures 3 hours, Laboratory 2 hours, Total 5 hours per week.

BUAD 121-122 RECORD KEEPING I-II (3 cr.) (3 cr.)—A course designed to concentrate on the keeping of financial, personnel, inventory, and other records in the office. Lectures 2 hours, Laboratory 2 hours, Total 4 hours per week.

BUAD 130 MARKETING PRINCIPLES AND PRACTICES (3 cr.)—A course in the principles, methods, and problems involved in the distribution and marketing of goods and services. It includes a study of the various marketing agents: wholesaler, broker, agent, cooperative, and trade association. Discussions of present day problems and policies connected with the distribution and sale of commodities, pricing, advertising and promotion, and buyer motivation. Lectures 3 hours per week.

BUAD 156 OFFICE MACHINES (2 cr.)—A course to develop proficiency in the use of office machines such as calculators and adding machines. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

BUAD 160 SURVEY OF INSURANCE (3 cr.)—A course in insurance principles and practices. Includes an examination of risks and applications in the principal fields of insurance, including life, accident and health, fire, liability, surety, and property. Lectures 3 hours per week.

BUAD 170 BUSINESS ORGANIZATION AND MANAGEMENT (3 cr.) —Prerequisite BUAD 100. This course deals with the basis of management and the management functions: planning, organizing, staffing, directing, and controlling. Management is examined as both a science and an art, with emphasis on both the formal body of knowledge and the personal abilities required of the successful manager. Lectures 3 hours per week.

BUAD 211-212-213 PRINCIPLES OF ACCOUNTING I-II-III (4 cr.) (4 cr.)—The fundamental principles and elements of accounting. Lectures 3 hours, Laboratory 2 hours, Total 5 hours per week.

BUAD 214-215 INTERMEDIATE ACCOUNTING I-II (4 cr.) (4 cr.)—Prerequisite BUAD 111-112-113. Extensive analysis of the principal elements of accounting systems and statements. Lectures 4 hours per week.

BUAD 218 PAYROLL ACCOUNTING (3 cr.)—Basic payroll systems and accounting methods used in computing wages. Lectures 3 hours per week.

BUAD 220 COST ACCOUNTING (3 cr.)—Prerequisite BUAD 111-112-113. Studies in accounting systems, methods and statements involved in process and job cost accounting, with attention to the use of standards and controls. Lectures 3 hours per week.

BUAD 227 AUDITING (3 cr.)—Prerequisite BUAD 111-112-113. Purposes of audit, relationships of auditor and client, kinds of audits, working papers, internal controls and examination of accounting systems, audit reports. Lectures 3 hours per week.

BUAD 240 BUSINESS FINANCE (3 cr.)—An introduction to the problems involved in the acquisition and use of funds necessary to the conduct of business. The course covers sources and instruments of capital and finance, financial organization, and financing of operations and adjustments. Lectures 3 hours per week.

BUAD 241-242-243 BUSINESS LAW I-II-III (3 cr.) (3 cr.)—The application of rules of law to the operation of a business. It covers the legal aspects of the principal instruments of business activity, rights and liabilities of business principals and agents, formation and dissolution of ownership forms, and the legal aspects of negotiable instruments and securities. Lectures 3 hours per week.

BUAD 246 MONEY AND BANKING (3 cr.)—A review of the history of American banking institutions; banking theories, principles and practices; emphasis is placed on relationship of finances to business structure, operation and organization; present day financial structures, agents, problems and institutions are examined in depth. Lectures 3 hours per week.

BUAD 286 PERSONNEL MANAGEMENT (3 cr.)—A course in the problems and issues involved in the administration of personnel actions. Includes organization and tasks of personnel development, significant personnel considerations, and an appraisal of the position of labor in business today. Lectures 3 hours per week.

BUAD 294 INTRODUCTION TO BUSINESS STATISTICS I (3 cr.)—This course covers the collection, tabulation, and graphic presentation of data concerning business activity, economic trends and cycles, and similar fields, and the application of these techniques in solving practical business problems. Lectures 3 hours per week.

BUAD 295 BUSINESS STATISTICS II (3 cr.)—Prerequisite BUAD 294. A study of statistical and probability techniques and their use. Specific topics include the principal statistical concepts and techniques and their practical applications, including analysis, and the use of graphic presentation and solutions. Lectures 3 hours per week.

BUAD 299 BUSINESS ADMINISTRATION SEMINAR AND PROJECT (2 cr.)—A selection and completion of an individual project related to the student's occupational objective and designed to combine theoretical concepts with practical applications by cooperative arrangements with business and industry. Also includes discussions of professional topics in general and a study of approaches to selection and pursuit of employment and career opportunities in business administration.

CHEMISTRY

CHEM 006 BASIC CHEMISTRY (4 cr.)—A foundations course in general chemistry designed to develop a basic understanding of inorganic and organic chemistry. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

CHEM 111-112-113 GENERAL INORGANIC CHEMISTRY I-II-III (4 cr.) (4 cr.) (4 cr.)—Fundamental principles and laws underlying chemical action with special emphasis on the non-metals and their compounds, and theories and problems concerning them. The laboratory work for the first two quarters of the course deals chiefly with the non-metallic elements and their compounds. The last quarter deals with the theories of qualitative analysis. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

CHEM 151-152-153 HEALTH SCIENCE CHEMISTRY I-II-III (4 cr.) (4 cr.) (4 cr.)—This is primarily an introductory course in chemistry for students in the health sciences. It deals with the basic principles on inorganic, organic and biological chemistry. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

CIVIL TECHNOLOGY

CIVL 184 LAND SURVEYING (5 cr.)—Prerequisite MATH 112. Plain surveying. The topics covered include distance measurements, note keeping, compass, surveying, leveling, angle measurement, stadia, topography, coordinates, area and computation, and mapping. Lectures 3 hours, Laboratory 6 hours, Total 9 hours per week.

CIVL 280 ADVANCED SURVEYING (4 cr.)—Prerequisite CIVL 184. Closure and area computations, United States system of land surveys, stadia, contours, building layouts, lines and grades. Field topographic survey and city surveys. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

DATA PROCESSING TECHNOLOGY

DAPR 106 PRINCIPLES OF DATA PROCESSING (3 cr.)—Prerequisite one year of high school algebra. An introduction to basic methods, techniques, and systems of manual, mechanical, and electronic data processing. Covers the history and development of punch card data processing, and electronic or automatic data processing. Monitors and controls digital computers to process predefined business or other data according to operating instructions. Lectures 3 hours per week.

DECORATING

DECO 011 BASIC INTERIOR DECORATING I (3 cr.)—This course covers the fundamental principles involved in good interior decorating. Lectures 3 hours per week.

DECO 012 BASIC INTERIOR DECORATING II (3 cr.)—Application of fundamental decorating principles of house furnishings and interior design. Lecture 3 hours per week.

DRAFTING AND DESIGN

DRFT 111 DRAFTING I (2 cr.)—Introduction to the techniques and instruments required for success as a draftsman in industry. Content will include use of instruments, orthographic projection, auxiliary views, lettering, dimensions, tolerance, conventions and symbols, simple descriptive and analytic geometry principles as applied to drafting; preparation of simple drawings, progression to complicated drawings. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 112 DRAFTING II (2 cr.)—Prerequisite DRFT 111. New materials introduced will include sections and conventions, fasteners, freehand sketching as required; introduces principles of isometrics; additional drawing skill is developed through more complicated drawings. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 113 DRAFTING III (2 cr.)—Prerequisite DRFT 112. Special emphasis on assembly drawings, working from the simple to the complex. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 126 INTRODUCTION TO GRAPHIC PRESENTATION (3 cr.)—Basic course in drawing, introduction to the use of instruments, lettering, sketching, and elementary drawing conventions. The importance of neat, legible drawings and the value of visual presentations in technology are discussed. Lectures 2 hours, Laboratory 3 hours, Total 5 hours per week.

DRFT 171 BLUEPRINT READING I (2 cr.)—This course will include the purpose of blueprints, designing of the product and its production, review and application of basic principles, visualization, orthographic projection, detail of drafting shop process and terminology, assembly drawings, and exploded views. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 172 BLUEPRINT READING II (2 cr.)—Prerequisite DRFT 171. This course will include dimensioning, review and application techniques, changes and corrections, classes of fits, tolerances and allowances, sections, and convention in blueprint reading, auxiliary views, pictorial drawings, and simplified drafting procedures and practices. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 173 BLUEPRINT READING III (2 cr.)—Prerequisite DRFT 172. Industrial prints will be used in this course. The difference between production drawings or operation sheets and tool drawings will be presented. Assembly drawings as the piece fits into place will be broken down into each detail print required. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 211 DRAFTING IV (3 cr.)—Prerequisite DRFT 113. Use of drafting machines, and emphasis is placed on knowledge and skill required in typical industrial drawing. Content is introduced to acquaint the student with electrical and electronic symbols and drawings, piping, complicated gearing drawings, sections, and layout; skill in lettering of all types is developed. Lecture 1 hour, Laboratory 6 hours, Total 7 hours per week.

DRFT 212 DRAFTING V (3 cr.)—Prerequisite DRFT 211. Emphasis on electronic and electromechanical drawings, sheet metal fabrication, radii, fillets, and tolerances. Additional skill is developed in the use of ink in lettering and ruling. Lecture 1 hour, Laboratory 6 hours, Total 7 hours per week.

DRFT 213 DRAFTING VI (3 cr.)—Prerequisite DRFT 212. Emphasis on design drafting in all aspects, and with use of drafting as a means of communication. Lecture 1 hour, Laboratory 6 hours, Total 7 hours per week.

DRFT 256 ELECTRONICS DRAFTING (2 cr.)—Fundamental principles, practices, and methods of presenting electromechanical information through the graphic language. Principles of projection, fastening, materials and finishes, chassis design and fabrication, electronic symbology, diagrammatic drawings, printed circuit drawings, and checking of electronic drawings. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

DRFT 260 ARCHITECTURAL DRAWING (3 cr.)—Basic standard building details are studied and drawn. One point and two point perspective line drawings are included. Working drawings for a small building are made, including floor and foundation plans, elevations, wall sections and details. Lecture 1 hour, Laboratory 6 hours, Total 7 hours per week.

DRFT 299 SEMINAR AND PROJECT IN DRAFTING AND DESIGN TECHNOLOGY (2 cr.)—A selection and completion of an individual project related to the student's occupational objective and designed to combine theoretical concepts with practical applications by cooperative arrangements with industry. Also includes discussions of professional topics in general and a study of approaches to selection and pursuit of employment and career opportunities in drafting and design technology.

ECONOMICS

ECON 160 AMERICAN ECONOMICS (3 cr.)—A survey of the history, principles, and policies of the American economic system. Some comparison with alternative economic system. Lectures 3 hours per week.

ECON 211-212-213 PRINCIPLES OF ECONOMICS I-II-III (3 cr.) (3 cr.)—The principles of economics and the bearing of these principles on present American conditions; structural and functional aspects of the economy. Analysis, problems and issues relating to organization of business, labor, and government institutions, and economic stability and growth. Measurements of economics activity. Private enterprise, economic growth and stabilization policies, monetary and fiscal policy. Lectures 3 hours per week.

ECON 214-215 PRINCIPLES OF ECONOMICS I-II (5 cr.) (4 cr.)—An introductory course covering the structure, organization, and operation of the United States economy. Analysis, problems, and issues relating to organization of business, labor, and government institutions, and economic stability and growth. Measurements of economic activity. Private enterprise, economic growth and stabilization policies, monetary and fiscal policy. International economic relationships, alternative economic systems. Lectures 5 hours per week in ECON 214 and Lectures 4 hours per week in ECON 215.

ELECTRICAL ENGINEERING TECHNOLOGY

ELEC 011-012-013 BASIC ELECTRICITY (4 cr.) (4 cr.) (4 cr.)—This is a three-quarter course which assumes no background in DC or AC theory. Principles of electricity are taught covering resistance, current, and voltage in both DC and AC states. An elementary knowledge of algebra is assumed. The course is designed to lead into the Basic Electronics course ELEC 021, 022, 023. Laboratory experiments will be performed to supplement the classroom work. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 021-022-023 BASIC ELECTRONICS (4 cr.) (4 cr.) (4 cr.)—This course builds on the background of the basic electricity course and covers an introduction to vacuum tube and semiconductor principles and circuitry. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 114 FUNDAMENTALS OF DIRECT CURRENT (4 cr.)—MATH 111 must have been taken previously or must be taken concurrently. A study of current flow and direct current circuits. The course presents work with magnetic circuits. This course utilizes mathematical tools as they are developed in the mathematics course. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 115 FUNDAMENTALS OF ALTERNATING CURRENT (4 cr.)—Prerequisite ELEC 114, MATH 112 must have been taken previously or must be taken concurrently. The study of time varying currents. The student will use complex numbers and vector concepts in dealing with A.C. impedances. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 116 CIRCUIT ANALYSIS (4 cr.)—Prerequisites ELEC 115. MATH 113. A course emphasizing A.C. circuit theory and both A.C. and D.C. network theorems. Course provides a continuation of study of background information needed to analyze networks with both active and passive elements present. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 120 INTRODUCTION TO TUBES AND TRANSISTORS (4 cr.)—Prerequisites ELEC 114 and MATH 111 must have been taken previously or must be taken concurrently. A course concerned with how electronic devices work and the characteristics of these devices. Both tube and solid state device characteristics are covered. This course utilizes the mathematical tools as they become available and the ideas of electronic flow and circuit analysis as they are developed in the fundamentals of electricity course. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 121 ELECTRONICS (4 cr.)—Theory and application of transistors; transistor construction, germanium characteristic, transistor types, point contact, junction P-N-P, N-P-N, symmetrical; circuit properties; application to electronics. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 124 ELECTRONICS I (5 cr.)—Prerequisite ELEC 114 and ELEC 120. A course dealing with special electronic devices and power supplies. Lectures 4 hours, Laboratory 3 hours, Total 7 hours per week.

ELEC 126 AMPLIFIERS (4 cr.)—Prerequisites ELEC 115 and ELEC 124. A continuation of electronic devices, in that many of the devices previously studied are used in forming amplifier circuits. Amplifiers, both transistor and tube types, are covered with emphasis on methods of analysis and design procedures. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 127 AMPLIFIERS AND OSCILLATORS (4 cr.)—Study of applied circuits such as clippers, clampers, pulse formers, multi-vibrators, blocking, oscillators, logic circuits, sweep circuits. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 227 PULSE AND SWITCHING CIRCUITS (3 cr.)—Prerequisites ELEC 116, ELEC 126, MATH 112. A course dealing with both linear and non-linear wave shaping. This course supplies a base for further study in the areas of computers and automatic controls. Lectures 2 hours, Laboratory 3 hours, Total 5 hours per week.

ELEC 241 COMMUNICATIONS I (4 cr.)—Prerequisite ELEC 116, ELEC 126. An introduction to modulation and power in modulated waves. Topics included are sinusoidal oscillations and oscillators, RF amplifiers and detectors, and AM receivers. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 242 COMMUNICATIONS II (4 cr.)—Prerequisite ELEC 241. A study of transmitters and receivers. Topics included are FM receivers, RF power amplification, AM, SSB, and FM transmitters, and an introduction to transmission lines and antennas. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 276 INSTRUMENTS AND MEASUREMENTS (4 cr.)—Prerequisite ELEC 116 and ELEC 126. A study of basic circuits used in electronic measurements and application of these circuits in test instruments such as oscilloscopes, vacuum tube voltmeters, and bridges. Further study concerned with the accuracy of measurements, how instruments work, proper use of instruments, and calibration technique. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ELEC 287 ADVANCED CIRCUITS AND NEW DEVICES (2 cr.)—This is a unique course, since it depends so heavily on the judgment of the teaching staff. It is composed of lectures and demonstrations concerned with the latest developments in electronics. Lectures 2 hours per week.

ELEC 299 SEMINAR AND PROJECT IN ELECTRICAL ENGINEER-ING TECHNOLOGY (2 cr.)—A selection and completion of an individual project related to the student's occupational objective and designed to combine theoretical concepts with practical applications by cooperative arrangements with industry. Also includes discussions of professional topics in general and a study of approaches to selection and pursuit of employment and career opportunities in electrical and electronics technology.

ENGINEERING TECHNOLOGY

ENGR 100 INTRODUCTION TO ENGINEERING (1 cr.)—Professional fields of engineering; the work of the engineer, requirements of training and character, professional ethics, the division of industrial practice and competition. Pure and simple problems from the various schools of engineering are used with slide-rule applications. Laboratory 3 hours per week.

ENGR 121 ENGINEERING GRAPHICS I (2 cr.)—A basic course in drawing and theories of projection. Multiview drawings, pictorial drawings and sketching, geometrical construction, sectioning, lettering, dimensioning, auxiliary views, revolutions, assembly drawings. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

ENGR 122 ENGINEERING GRAPHICS II (2 cr.)—Prerequisite ENGR 121, MATH 141. Graphical methods used in engineering design, layout and calculation. Properties and types of graphs for engineering and scientific purposes. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

ENGR 123 DESCRIPTIVE GEOMETRY (3 cr.)—Prerequisite ENGR 122. A study of the analysis and graphic presentation of the space relationship of fundamental geometric figures: point, line, plane, curved surfaces,

development and vectors. Lectures 2 hours, Laboratory 3 hours, Total 5 hours per week.

ENGR 151 MECHANICS I (STATICS) (3 cr.)—Prerequisite MATH 122 or MATH 112. Subject matter includes principles and applications of free body diagrams for force systems, shear and moment diagrams, deflection of beams by numerical integration, and determination of section properties. Lectures 3 hours per week.

ENGR 152 MECHANICS II (STRENGTH OF MATERIALS) (4 cr.)—Prerequisite ENGR 151, MATH 123 or MATH 113. A discussion of strength of material concepts with laboratory demonstrations and experiments. Subject matter includes stress and strain analysis, both elastic and plastic, with emphasis on elastic analysis of axially loaded members, connectors, beams, and columns. Lectures 3 hours, Laboratory 3 hours, Total 6 hours per week.

ENGR 153 MECHANICS III (3 cr.)—Prerequisite ENGR 152 and MATH 123 or equivalent. Additional topics in the study of rigid body mechanics, including kinetics, kinematics, and advanced strength of materials. Lectures 2 hours, Laboratory 3 hours, Total 5 hours per week.

ENGLISH

ENGL 001 VERBAL STUDIES LABORATORY I (5 cr.)—An intensive course in the minimum essentials of vocabulary, spelling, grammar, standard usage, and writing skills. Emphasis on words, phrases, and effective sentences. Individual and group instruction. Lectures 5 hours, Laboratory variable.

ENGL 002 VERBAL STUDIES LABORATORY II (5 cr.)—An intensive course in English grammar and composition with major emphasis on exercises in the basic structure of the English language and in the writing of paragraphs and themes. Individual and group instruction. Lectures 5 hours, Laboratory variable.

ENGL 003 VERBAL STUDIES LABORATORY III (5 cr.)—A more advanced course in the study of types of expository writing with weekly exercises based on students' needs. Lectures 5 hours, Laboratory variable.

ENGL 040 READING IMPROVEMENT (3 cr.)—A course designed with the use of modern techniques, equipment, and materials to increase the student's comprehension, skill, and speed in reading. Lectures 2 hours, Laboratory 3 hours, Total 5 hours per week.

ENGL 101 COMMUNICATION SKILLS I (3 cr.)—Prerequisite satisfactory score on English Expression portion of American College Test or ENGL 003 or equivalent. An introductory course in using the English language appropriately and precisely. Designed to improve the student's ability to write effectively. Emphasis on vocabulary, spelling, and reading comprehension. Lectures 3 hours per week.

ENGL 102 COMMUNICATION SKILLS II (3 cr.)—Prerequisite ENGL 101. Designed to help students increase their competence in thinking critically, expressing their thoughts clearly, writing effectively, and appreciating the creative activity of others, by considering selected examples of communication in all mediums. Literature serves as both model and subject for students in achieving these goals. Includes basic

research methods, outlining, and technical report writing. Lectures 3 hours per week.

ENGL 103 COMMUNICATION SKILLS III (3 cr.)—Prerequisite ENGL 102. This course puts into practice the skills learned in ENGL 101-102. The student will do research, outline, and some creative and technical writing. Lectures 3 hours per week.

ENGL 111-112-113 ENGLISH COMPOSITION I-II-III (3 cr.) (3 cr.) (3 cr.)—Prerequisite successful completion of 4 units of high school English and a satisfactory score on the English Expression portion of the American College Test or equivalent. Expository writing, ranging from single paragraphs to essays of some length and complexity. Study of the logical, rhetorical, and linguistic structures of expository prose; the methods and conventions of preparing research papers; and the practical criticism of major literary types. Lectures 3 hours per week.

ENGL 120 INTRODUCTION TO JOURNALISM (3 cr.)—Mass communication media which have reporting functions are surveyed as preparation for study in specific areas. Contributions of newspapers, magazines, radio, and television to journalistic techniques are shown and special news gathering organizations are examined. Beginning instruction and practice in news writing is included. Lectures 3 hours per week.

ENGL 121-122-123 JOURNALISM I-II-III (2 cr.) (2 cr.)—Instruction and classroom practice in gathering, evaluating, and writing news. Techniques of page layout, newspaper make-up, rewriting, and editing. Lecture 1 hour, Laboratory 3 hours, Total 4 hours per week.

ENGL 140 DEVELOPMENTAL READING (2 cr.)—A 24-hour course designed to increase eye span and reading speed. Particular emphasis will be placed on comprehension and understanding. Lecture 2 hours per week.

ENGL 251-252-253 AMERICAN LITERATURE I-II-III (3 cr.) (3 cr.) (3 cr.)—Prerequisite satisfactory completion of freshman English. The cultural history of America as revealed through its major literary works and historical events. Emphasis on the ideas, themes and characteristics of an emerging national literature. I: Colonial period to 1860; II: 1860 to 1914; III: 1914 to present. Lectures 3 hours per week.

ENGL 261-262-263 ENGLISH LITERATURE I-II-III (3 cr.) (3 cr.)—Prerequisite satisfactory completion of freshman English. Historical survey of English literature, to include the novel, tragedy, drama, comedy, and poetry. Emphasis upon development of critical judgment and taste in reading superior literature with appreciation, and in writing about it. Lectures 3 hours per week.

ENGL 271-272-273 INTRODUCTION TO WORLD LITERATURE I-II-III (4 cr.) (4 cr.) (4 cr.)—Prerequisite completion of freshman English. A first course in a one-year sequence designed to develop an historical survey of world literature including all types and forms; used to complement the sequence of English Composition through selected examples and analysis, and theme writing; emphasis will be placed on development of more critical judgment and development of taste in selecting and reading good literature; development of values in selecting, appreciating, and analyzing literature. Lectures 4 hours per week.

ENGL 280 BUSINESS ENGLISH (3 cr.)—Prerequisite ENGL 102. An intensive study of the qualities and techniques required in the preparation of business correspondence, reports, articiles, and memoranda. A practical course in the reading and writing of business-related materials with emphasis on comprehension, analysis, and organization of ideas in a logical pattern. Lectures 3 hours per week.

FOREST TECHNOLOGY

FORE 100 INTRODUCTORY TO FORESTRY (4 cr.)—A study of the general concepts of forestry, including its history and development in the United States. Laboratory sessions will introduce the student to the use of basic forestry hand tools. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 117 DENDROLOGY (4 cr.)—Prerequisite BIOL 101 or equivalent. A brief survey of the plant kingdom followed by a study of the commercially important trees of the United States. Emphasis is placed upon the field characteristics and environment of the trees of the Southeast. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 118 APPLIED SILVICULTURE (4 cr.)—Prerequisite FORE 100-117. An introduction to artificial reforestration and silvicultural practices in the United States. Improvement of forest stands employing basic silivicultural practices of weeding, thinning, pruning, cutting practices and marking of stands prior to harvest. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 121 FOREST FIRE CONTROL (3 cr.)—A study of forest fire behavior. Included are factors influencing and causing ignition and spread, methods of fire prevention and presuppression, and forest control organizations. Lectures 3 hours per week.

FORE 122 FOREST PROTECTION (3 cr.)—A study of destructive biotic and abiotic agencies in the forest. Methods of control are emphasized. Forest fires are not covered. Lectures 2 hours. Laboratory 2 hours.

FORE 131 WILDLIFE AND FISHERIES MANAGEMENT (4 cr.)—Prerequisite FORE 100. An introduction to the principles of wildlife and fisheries management. Emphasis is placed upon practices in the Southeastern United States. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 132 FOREST RECREATION (4 cr.)—Prerequisite FORE 131. A study of recreational use of forest resources, including an understanding of the psychology of recreation. Planning and design of forest recreation areas. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 197 FOREST PRACTICUM (1 cr.)—Prerequisite FORE 100-121. A one-week field trip to other areas of the State. Visits will be made to various forestry related activities including controlled burns. A one-week field trip.

FORE 201 FOREST MENSURATION I (4 cr.)—Prerequisite FORE 100-117 CIVL 184 BUAD 156. The basic techniques of log and pulpwood scaling, tree measurement, form class, and mapping techniques. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 202 FOREST MENSURATION II (4 cr.)—Prerequisite FORE 201.

Latest techniques of timber cruising including field problems in both fixed and variable size plot techniques. Basic statistical procedures are included. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 207 AERIAL PHOTO INTERPRETATION (3 cr.)—Prerequisite concurrent registration in FORE 202. Principles and practices of photogrametry with emphasis on use in forestry. Included are forest-type mapping, road location, projection and inventory techniques. Lectures 2 hours. Laboratory 2 hours, Total 4 hours per week.

FORE 230 FOREST MANAGEMENT (4 cr.)—Prerequisite completion of 30 hours in technical forestry subjects. A study of the management and administration of forest properties including a brief summary on finance and taxation. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 241 FOREST PRODUCTS I (3 cr.)—An introduction to the products of the forest. Lectures 3 hours per week.

FORE 242 FOREST PRODUCTS II (4 cr.)—Prerequisite FORE 241. A study of sawmilling and lumber marketing practices. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FORE 247 TIMBÉR HARVESTING (4 cr.)—Prerequisite concurrent registration in FORE 302. Harvesting methods including physical layout, economic, silvicultural, water management, and protection considerations. Emphasis is placed on woods safety. Lectures 3 hours. Laboratory 3 hours. Total 6 hours per week.

FRENCH

FREN 101-102-103 ELEMENTARY FRENCH I-II-III (4 cr.) (4 cr.) (4 cr.)—Introductory training in the understanding, speaking, reading, and writing of French with emphasis on manipulation of the structure of the language. Lectures 3 hours, Laboratory and drill 2 hours, Total 5 hours per week.

FREN 201-202-203 INTERMEDIATE FRENCH I-II-III (4 cr.) (4 cr.) (4 cr.)—Prerequisite FREN 103 or successful completion of two years of high school French and permission of instructor. Advanced training in the understanding, speaking, reading, and writing of French. French used in the classroom. Lectures 3 hours, Laboratory and drill 2 hours, Total 5 hours per week.

GENERAL

GENL 100 ORIENTATION (1 cr.)—This course, required of all beginning college students, is designed essentially as an instrument of group guidance and deals with such problems as adjustment to college, purposes and functions of the college planning for the future, and making the most of the college years and what the college has to offer. Particular emphasis is placed on experiences designed to improve study habits and skills such as reading, listening, and library activities. Lectures 1 hour, Laboratory or seminar 1 hour, Total 2 hours per week.

GOVERNMENT

GOVT 180 AMERICAN CONSTITUTIONAL GOVERNMENT (3 cr.)—An introductory course in American government, including fundamental concepts and principles of our constitutional system at the national, state, and local levels. Lectures 3 hours per week.

GOVT 281-282-283 UNITED STATES GOVERNMENT I-II-III (3 cr.) (3 cr.) (3 cr.)—Elements of political science, powers, organization, and functions of the legislative, executive, and judicial branches of the national, state and local governments in the United States; Democracy, federalism, the Constitution, and civil liberties. Lectures 3 hours per week.

HEALTH

HLTH 107 CONCEPTS OF PERSONAL AND COMMUNITY HEALTH (3 cr.)—An introductory course in the maintenance of health and prevention of illness at the personal and community level. Lectures 3 hours per week.

HLTH 154 FIRST AID I (2 cr.)—A standard first aid course with the principles and techniques of safety and first aid. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

HLTH 155 FIRST AID II (2 cr.)—Prerequisite HLTH 154. An advanced first aid course on the principles and techniques of safety and first aid. Safety projects and problems. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

HLTH 226 ELEMENTS OF NUTRITION (3 cr.)—Elements of nutrition and practice influencing the ability of the individual and the family to secure and maintain good nutritional status. Lectures 3 hours per week.

HISTORY

HIST 101-102-103 HISTORY OF WESTERN CIVILIZATION I-II-III (3 cr.) (3 cr.) (3 cr.)—The development of western civilization from ancient times to the present. The last two quarters deal with a survey of the period since the close of the Reformation. Lectures 3 hours per week.

HIST 111-112-113 AMERICAN HISTORY I-II-III (3 cr.) (3 cr.) (3 cr.) —A survey of United States history from its beginning in early colonial times to the present. Lectures 3 hours per week.

INDUSTRIAL TECHNOLOGY

INDT 111-112 MATERIALS AND PROCESSES OF INDUSTRY I-II (3 cr.)—The objective of this course is to familiarize the student with the materials and processes of modern industry from the drafting and design point of view. The physical properties of industrial materials such as ferrous, non-ferrous metals, woods, plastics and clay products will be studied in terms of design application, processing and fabricating methods. Students will be introduced to cutting, cold forming, hot work-

ing, welding, foundry and chipless manufacturing processes which are widely employed in contemporary industry. In addition, the science of precision measurement as applied to inspection practices will be studied. Lectures 3 hours per week.

INDT 176 PLANT SAFETY (2 cr.)—Principles and practices of accident prevention, analysis of accident causes, mechanical safeguards, fire prevention, housekeeping, occupational diseases, first aid, safety organization, protection equipment and general safety principles and promotion of same. Lectures 2 hours per week.

INDT 226 PLANT LAYOUT (3 cr.)—Arrangement and layout of physical facilities for maximum efficiency of production, including stock arrangement, machines, layout of aisles, use of space and techniques of model construction. Lectures 2 hours, Laboratory 2 hours, Total of 4 hours per week.

INDT 270 INDUSTRIAL MANAGEMENT (3 cr.)—Detailed study of organizational structure; operational, financial, accounting and marketing activities; management responsibilities; planning, control, personnel, safety, labor relationships, and factors essential to effective management. Lectures 3 hours per week.

INDT 299 SEMINAR AND PROJECT IN INDUSTRIAL TECHNOLOGY (2 cr.)—A selection and completion of an individual project related to the student's occupational objective and designed to combine theoretical concepts with practical applications by cooperative arrangements with industry. Also includes discussions of professional topics in general and a study of approaches to selection and pursuit of employment and career opportunities in industrial technology.

MATHEMATICS

MATH 001-002-003 DEVELOPMENTAL MATHEMATICS I-II-III (5 cr.) (5 cr.) (5 cr.)—This practical course bridges the gap between a weak mathematical foundation and the knowledge necessary for the study of advanced mathematical courses in technical and professional programs. It presupposes little knowledge of secondary school mathematics. Arithmetic, algebra, and geometry will be covered. Lectures 5 hours, Laboratory variable.

MATH 006 FOUNDATIONS OF MATHEMATICS (2 cr.)—A continuing course in foundations of mathematics using programmed learning materials. Available in this continuing series are algebra, plane geometry, solid geometry, and trigonometry. Certificate of completion given at the successful conclusion of each programmed course. Lecture 1 hour, Individual Learning Laboratory 2 hours, Total 3 hours per week.

MATH 016 HEALTH SCIENCE MATHEMATICS (2 cr.)—A review of arithmetic and algebra with special emphasis on calculations involving dosages of drugs and concentration of solutions. Lectures 2 hours per week.

MATH 011-012-013 ELEMENTS OF MATHEMATICS I-II-III (3 cr.) (3 cr.) (3 cr.)—Designed for the occupational student. This course involves practical applications of elementary mathematics, including algebra, geometry, and trigonometry, to the common everyday problems in the

manufacturing and trade world. The instructional material meets the full requirements for elementary mathematics in the machinist, drafting, toolmaking, and auto mechanic trades. Lectures 2 hours, Laboratory 2 hours, Total 4 hours per week.

MATH 031-032 BASIC ALGEBRA I-II (5 cr.) (5 cr.)—Fundamentals of algebraic calculations for students who need a survey of the basic principles of algebra. MATH 031 covers introductory algebra and MATH 032 surveys the second year of high school algebra. Lectures 5 hours per week.

MATH 036 BASIC PLANE GEOMETRY (5 cr.)—Fundamentals of plane geometry for students who want an introductory review of plane geometry. The course will provide the necessary proficiency in plane geometry required for entry in an associate degree program. Lectures 5 hours per week.

MATH 038 BASIC TRIGONOMETRY (5 cr.)—Fundamentals of trigonometry for students who want an introductory review of trigonometry. Lectures 5 hours per week.

MATH 111 TECHNICAL MATHEMATICS I (3 cr.)—Prerequisite satisfactory mathematics score on the ACT test and one unit of high school algebra or equivalent. Designed for the technical student. Slide rule and review of geometry, basic algebra and analytic geometry of the straight line, advanced algebra and logarithms. Lectures 3 hours per week.

MATH 112 TECHNICAL MATHEMATICS II (3 cr.)—Prerequisite MATH 111. Curve sketching, nonlinear empirical equations, numerical trigonometry of the right triangle, and introduction to analytical trigonometry. Lectures 3 hours per week.

MATH 113 TECHNICAL MATHEMATICS III (3 cr.)—Prerequisite MATH 112. Oblique triangles and applications of numerical trigonometry, analytical trigonometry, introduction to calculus. The intention of the calculus at this point is to introduce those techniques of calculus which will be useful to the engineering student in the pursuit of his major subjects. Lectures 3 hours per week.

MATH 141-142-143 INTRODUCTORY MATHEMATICAL ANALYSIS I-II-III (5 cr.) (5 cr.) (5 cr.)—Prerequisite satisfactory mathematics score on the ACT test and four units of high school mathematics including two units of algebra, one unit of geometry, and one-half unit of trigonometry, or equivalent. A modern unified course in algebra, trigonometry, analytic geometry, and calculus designed primarily for engineering and science students. Lectures 5 hours per week.

MATH 151-152 BUSINESS MATHEMATICS I-II (3 cr.) (3 cr.)—Prerequisite: Strong background in the basic arithmetic operation or MATH 001 or equivalent. Instruction, review and drill in percentage, cash and trade discounts, markup, payroll, sales, property and other taxes, simple and compound interest, bank discounts, interest, investments and annuities. Lectures 3 hours per week.

MATH 161-162-163 COLLEGE MATHEMATICS I-II-III (3 cr.) (3 cr.)—Prerequisite: Satisfactory mathematics score on the ACT test and three units of high school mathematics including two units of algebra and one unit of geometry or equivalent. A modern unified course in

algebra, trigonometry, analytic geometry, and calculus for students other than those in engineering. Lectures 3 hours per week.

MATH 181-182-183 GENERAL COLLEGE MATHEMATICS I-II-III (3 cr.) (3 cr.) —This course is intended for students with majors other than mathematics, science or engineering. Prerequisite algebra I and either algebra II or geometry and a satisfactory mathematics score on the ACT test. Topics including sets; the logic of algebra; the real number system; algebraic and trancendental functions, relations and graphs will be covered the first two quarters. The third quarter will include permutations, combinations, probability and elementary statistics.

MATH 264-265 ADVANCED COLLEGE MATHEMATICS I-II (5 cr.) (4 cr.)—Prerequisite MATH 163 or equivalent. A continuation of the unified course in algebra, trigonometry, analytic geometry and calculus for students other than those in engineering and science. Lectures 5 hours per week in MATH 264 and Lectures 4 hours per week in MATH 265.

MECHANICAL ENGINEERING TECHNOLOGY

MECH 117 MACHINE TOOL DESIGN (3 cr.)—This course includes tool drafting, standards, tolerances, dimensions, checking catalogues, manufacturing processes, primary and secondary operations. Lectures 3 hours per week.

MECH 218 JIGS AND FIXTURE DESIGN (3 cr.) Designed to give the student a thorough knowledge of the principles, practices, tools, and commercial standards of jig and fixture design. Through lectures, visual aids, and individual project and design work, the student becomes well acquainted with the many types of jigs and fixtures and their design. Lectures 2 hours, Laboratory 3 hours, Total 5 hours per week.

NATURAL SCIENCE

NASC 100 SURVEY OF SCIENCE (4 cr.)—A general survey course designed to familiarize the student with the basic principles of biological and physical sciences. Lectures 3 hours, Laboratory 2 hours, Total 5 hours per week.

PHYSICAL EDUCATION

PHED 101-102-103 PHYSICAL EDUCATION I-II-III (1 cr.) (1 cr.)—An introductory study of recreational activities that will have value for the individual in adult life in developing physical skills for more effective use of leisure time. The development of skills and methods in archery, badminton, bowling, golf, tennis and volleyball are stressed. Lecture 1 hour, Clinic 1 hour, Total 2 hours per week.

PHED 107 PHYSICAL PERFORMANCE (1 cr.)—Group and individual work in the development and understanding of strength, balance, agility, and cardio-vascular function. Clinic 2 hours per week.

PHED 111 TEAM SPORTS I (1 cr.)—The skills and techniques of volleyball and basketball. Lecture 1 hour, Clinic 1 hour, Total 2 hours per week.

PHED 112 TEAM SPORTS II (1 cr.)—The theory and practice of soccer and softball. Lecture 1 hour, Clinic 1 hour, Total 2 hours per week.

PHED 117 SOFTBALL AND AERIAL TENNIS (1 cr.)—Course designed to instill and develop values of team play and partner activities. Emhasis placed on individual responsibility, cooperation, sportsmanship, self-control, and recreation. Idea of "play for fun" will be stressed. Laboratory 3 hours per week.

PHED 121 DUAL SPORTS I (1 cr.)—An introduction to dual sports such as table tennis, horseshoes, golf, and tennis. Lecture 1 hour, Clinic 1 hour, Total 2 hours per week.

PHED 126 TENNIS (1 cr.)—Course designed for emphasis on theory, fundamental skills, practice, strategy, rules, recreational leisure time approach, court courtesies, sportsmanship, and the "play for fun" elements. Group and individual instruction; objective to enable student to make tennis an adult recreative and leisure time sport. Laboratory 3 hours per week.

PHED 138 GOLF (1 cr.)—Course designed for emphasis on theory, fundamental skills, class practice, and independent study, golf etiquette, rules and strategy. Individual and group instruction; objective to enable student to make golf an adult recreative and leisure time activity. Laboratory 3 hours per week.

PHED 139 BOWLING (1 cr.)—Course designed for emphasis on fundamental skills, practice, bowling etiquette, sportsmanship, and basic rules. Group and individual instruction; objective to enable student to make bowling an adult recreative and leisure time activity. Laboratory 3 hours per week.

PHED 246 RULES AND OFFICIATING (2 cr.)—Study of rules and officiating techniques of selected sports. Supervised practice in officiating. Lecture 1 hour, Clinic 1 hour, Total 2 hours per week.

PHYSICS

PHYS 101-102-103 INTRODUCTORY PHYSICS I-II-III (4 cr.) (4 cr.) (4 cr.)—A survey of general physics treating briefly the fundamentals of mechanics, properties of matter, heat, magnetism, electricity, sound, light, and radiation. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

PHYS 201-202-203 GENERAL COLLEGE PHYSICS I-II-III (4 cr.) (4 cr.) (4 cr.)—Prerequisite MATH 183 or equivalent. General college physics for curricula not requiring calculs. Lecture 3 hours, Laboratory 3 hours, Total 6 hours per week.

POLICE SCIENCE

PLCE 130 CRIMINAL LAW (3 cr.)—Major crimes; their classification, elements of proof, intent, conspiracy, responsibility, parties, and defenses. Emphasis on the common law and Virginia adaptations. Lecture 3 hours per week.

PLCE 136 LEGAL EVIDENCE (3 cr.)—Kinds, degrees, and admissibility of evidence; methods and techniques of its acquisition, and use in criminal proceedings. Moot court activities are included. Lectures 3 hours per week.

PSYCHOLOGY

PSYC 119 PSYCHOLOGY OF PERSONALITY (3 cr.)—Introduction to the psychology of self-understanding and the attainment of personal efficiency. Lectures 3 hours per week.

PSYC 128 HUMAN RELATIONS (3 cr.)—Introduction to the study of human personality and its reaction upon other personalities. The application of psychology to problems in industry and private life. Some introduction to such matters as selection, training and placement of employees. Lectures 3 hours per week.

PSYC 201-202-203 GENERAL PSYCHOLOGY I-II-III (3 cr.) (3 cr.) (3 cr.)—An introduction of human behavior with a relating of experimental data to practical problems: the measurement of ability, sensory and perceptive processes, organic basis of behavior, hereditary, maturation, learning and thinking, motivation, emotion, personality and social factors in behavior. Lectures 3 hours per week.

PSYC 204-205 GENERAL PSYCHOLOGY I-II (5 cr.) (4 cr.)—The principles of behavior with a relating of experimental data to practical problems: the measurement of ability, sensory and perceptive processes, organic basis of behavior, hereditary, maturation, learning and thinking, motivation, emotion, personality and social factors in behavior. Lectures 5 hours per week in PSYC 204; Lectures 4 hours per week in PSYC 205.

PSYC 246 EDUCATIONAL PSYCHOLOGY (5 cr.)—Prerequisite PSYC 202 or equivalent. Human behavior and learning treated in the context of educational processes. The nature of various mental characteristics (intelligence, interest, knowledge, etc.) is examined, with special consideration given to their measurement and appraisal and their significance for educational goals. Lectures 5 hours per week.

PSYC 226 PSYCHOLOGICAL ASPECTS OF MANAGEMENT (3 cr.)— Prerequisite PSYC 128. Psychological principles applied to business. Supervision, communication, employee relations, group dynamics, employee selection. Lectures 3 hours per week.

SECRETARIAL SCIENCE

SECR 111 TYPEWRITING I (3 cr.)-Introduction to keyboard with emphasis on good technique and machine mastery; letter format and styles; tabulation and centering; manuscript typing. Lecture 1 hour, Laboratory 4 hours, Total 5 hours per week.

SECR 112 TYPEWRITING II (3 cr.)—Prerequisite SECR 111 or placement test. Continuation of skill building with increased emphasis on standards required to meet job requirement in production typing. Lecture 1 hour, Laboratory 4 hours, Total 5 hours per week.

SECR 113 TYPEWRITING III (3 cr.)—Prerequisite SECR 112 or placement test. An advanced course in skill development with high standards required to meet job requirements in production typing. Lecture 1 hour, Laboratory 4 hours, Total 5 hours per week.

SECR 121 SHORTHAND I (4 cr.)—ENGL 101 must have been taken previously or must be taken concurrently. Presentation of shorthand principles in Gregg, Diamond Jubilee Series with emphasis on basic reading and writing skills, emphasizing associated vocabulary and grammar. Lectures 3 hours, Laboratory 2 hours, Total 5 hours per week.

SECR 122 SHORTHAND II (4 cr.)—Prerequisite SECR 121 or placement test. Reinforcement of shorthand principles, further development of general business vocabularies and English usage. General business dictation. Lectures 3 hours, Laboratory 2 hours, Total 5 hours per week.

SECR 123 SHORTHAND III (4 cr.)—Prerequisite SECR 122 or placement test. Increased speed in general business dictation. Introduction of specialized business dictation with emphasis on vocabularies. Lectures hours, Laboratory 2 hours, Total 5 hours per week.

SECR 136 FILING AND RECORDS MANAGEMENT (2 cr.)—A comprehensive course covering indexing principles, filing procedures and techniques as applied to basic systems of filing; establishment of filing systems; selection of equipment and supplies; survey of systems using electronics and microfilm; solution of records management problems. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

SECR 156 PERSONAL DEVELOPMENT (3 cr.)—A course designed to develop the personality, appearance, and values necessary to make a favorable impression on the job. Lectures 3 hours per week.

SECR 214 ADVANCED TYPEWRITING I (2 cr.)—Continued development of speed and accuracy on production typing. Problems in centering, aligning, duplicating, tabulating, typing letters and reports. Lecture 1 hour, Laboratory 2 hours, Total 3 hours per week.

SECR 221 SHORTHAND TRANSCRIPTION I (3 cr.)—Prerequisite SECR 113 and SECR 123. Rapid review of fundamental principles of Gregg Shorthand, Diamond Jubilee Series, development of vocabulary and phrases. Speed building on general business dictation and transcription. Lecture I hour, Laboratory 4 hours, Total 5 hours per week.

SECR 222 SHORTHAND TRANSCRIPTION II (3 cr.)—Prerequisite SECR 221 or placement test. Continuation of speed building with emphasis on particular areas of general business, developing special vocabularies, phrases, and shortcuts. Emphasis on spelling, grammar, and other transcription skills. Lecture 1 hour, Laboratory 4 hours, Total 5 hours per week.

SECR 223 SHORTHAND TRANSCRIPTION (GENERAL) (3 cr.)—Prerequisite SECR 222 or placement test. Speed building in typical business dictation with a high degree of speed with accuracy in transcription from shorthand notes. Preparation for employer's secretarial placement examinations. Lecture 1 hour, Laboratory 4 hours, Total 5 hours per week.

SECR 241 SECRETARIAL PROCEDURES I (3 cr.)—Corequisite SECR 214. Development of skills in operation of stencil and spirit duplicating machines. Preparation of copy for reproduction by offset, stencil, and spirit process. Criteria for selecting a duplicating process. In-depth study

of type styles, paper, typewriter ribbons, and carbon paper. Lecture 2 hours, Laboratory 2 hours, Total 4 hours per week.

SECR 242 SECRETARIAL PROCEDURES II (3 cr.)—Prerequisite SECR 241. Emphasis on the secretary's routine office responsibilities, including mail handling, communication services, telephone techniques, and the use of reference materials. Emphasis is placed on application of skills gained in typewriting and shorthand. Lectures 2 hours, Laboratory 2 hours, Total 4 hours per week.

SECR 243 SECRETARIAL PROCEDURES III (3 cr.)—Prerequisite SECR 242. Continued emphasis on the secretary's office responsibilities, including handling of banking transactions, maintaining of office layouts, and personnel policies. Lectures 2 hours, Laboratory 2 hours, Total 4 hours per week.

SECR 266 MACHINE TRANSCRIPTION (3 cr.)—Prerequisite SECR 214 or permission of department chairman. Introduction to machine transcription, incorporating good listening techniques, grammar, punctuation, and correct business English. Emphasis is placed on mailability of copy with good production rates. Lectures 2 hours, Laboratory 2 hours, Total 4 hours per week.

SECR 299 SEMINAR AND PROJECT IN SECRETARIAL SCIENCE (2 cr.)—A selection and completion of an individual project related to the student's occupational objective and designed to combine theoretical concepts with practical applications by co-operative arrangements with industry and business offices. Also includes discussions of professional topics in general and a study of approaches to selection and pursuit of employment and career opportunities in secretarial science.

SOCIOLOGY

SOCI 106 GENERAL SOCIOLOGY (3 cr.)—An introduction to the study of various forms of human association, their structure, processes and products in terms of culture systems, human nature and personality. Lectures 3 hours per week.

SPEECH AND DRAMA

SPDR 106 INTRODUCTION TO THE THEATRE (3 cr.)—The basic principles of theatre. The background of modern drama, play analysis, types of theatrical production, and a comparison of the stage with motion pictures, radio and television as dramatic media. Lecture 3 hours, Total 3 hours per week.

SPDR 108 HISTORY OF THE THEATRE (3 cr.)—The history of the theatre as an art form in relation to the development of Western culture from ancient times to the present. Lectures 3 hours per week.

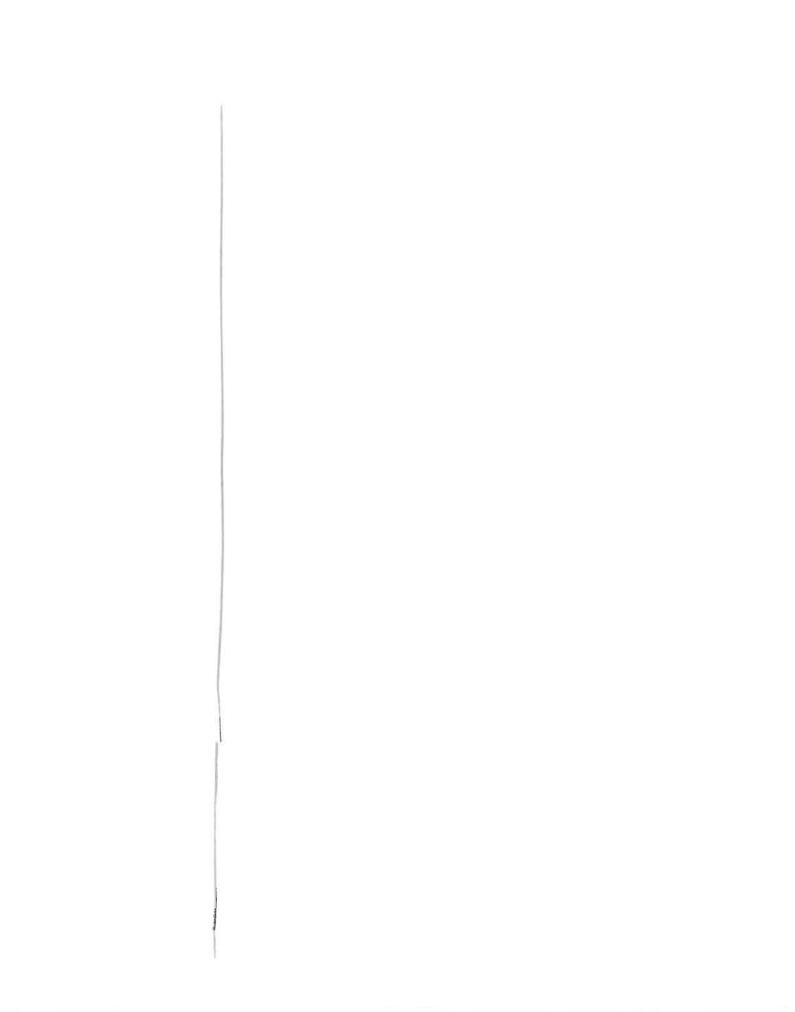
SPDR 117 FUNDAMENTALS OF PLAY PRODUCTION (3 cr.)—The materials and techniques of play production with particular reference to the stage, but including a consideration of the methods of dramatic production involved in motion pictures, radio, and television. Lectures 3 hours per week.

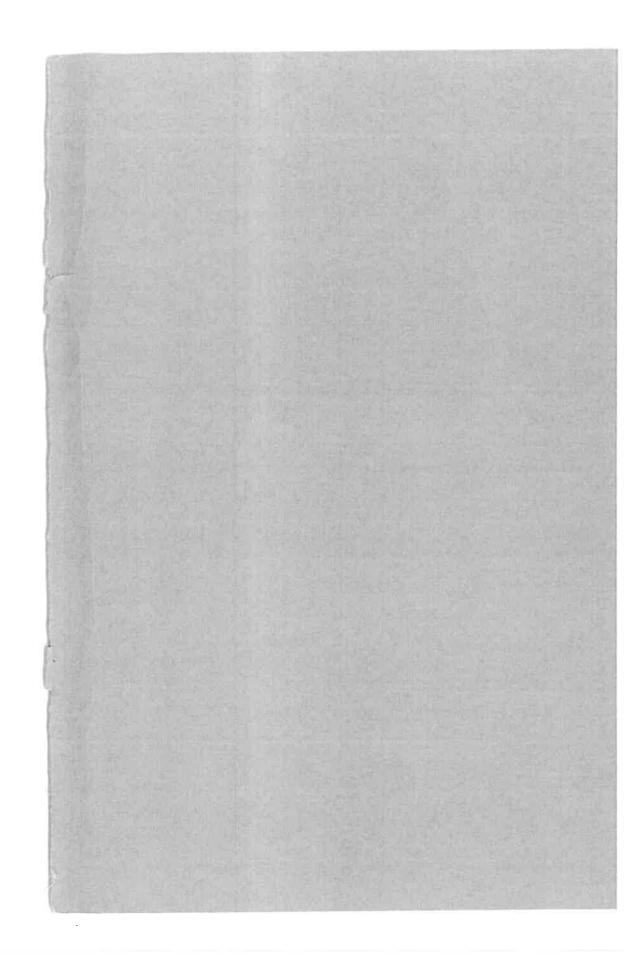
SPDR 136 SPEECH COMMUNICATIONS (3 cr.)—Proficiency in oral communication is developed through the learning of the basic forms,

uses, and techniques of speech. Emphasis on the practical aspects of speech writing, listening, and oral presentation. Lectures 3 hours per week.

SPDR 231 ADVANCED PUBLIC SPEAKING (3 cr.)—Advanced techniques in the preparation and delivery of the major types of speeches with emphasis on the speech to persuade. Attention will be given to the introduction, eulogy, acceptance speech, demonstration, and other speeches for special occasions. Lectures 3 hours per week.

SPDR 266 THE ART OF THE FILM (3 cr.)—Prerequisite ENGL 102 or department approval. An introduction to the art of the film: a survey of the history of the film; the viewing, discussion, and analysis of selected films, past and present; introduction to film techniques—composition, shot sequence, lighting, visual symbolism, sound effects, pace of editing. Lecture 3 hours per week.







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