

Programs of Study and Graduation Requirements

Degrees and Certificates

The college offers the following degrees, certificates, or career studies certificates for students who successfully complete approved programs at the college.

Degree Program

A planned program of study composed of a minimum of 60 semester hours at the 100 and 200 course levels which culminate in a degree.

Degree An award at the associate level that represents completion of the requirements of a degree program.

Major A collection of courses that are necessary to meet the requirements of the degree program under which the major is classified. Some majors provide specializations, which give students alternative ways of completing the major requirements for the degree. Only the name of the major is identified in the degree award.

Specialization A collection of courses that vary by 9–15 credit hours from the major requirements of the degree program under which the parent major is classified. Both the name of the major and the name of the specialization are identified in the degree award.

Associate of Arts degree (AA) is awarded to students majoring in the Liberal Arts. Students receiving an AA degree generally transfer to four-year colleges or universities.

Associate of Science degree (AS) is awarded to students majoring in such specialized curricula as business administration, engineering, science, and social sciences. Students receiving an AS degree generally transfer to four-year colleges or universities.

Associate of Applied Science degree (AAS) is awarded to students majoring in an occupational technical curriculum. Students receiving an AAS degree may elect to pursue immediate employment or transfer to selected four-year colleges or universities.

Certificate Program

A program of study of fewer than two years in length with a major in an occupational area with a minimum of 30 credit hours that may include courses numbered 10–299.

Career Studies Program

A program of study of less than one year in length in an occupational area (fewer than 30 credit hours) that may include courses numbered 10–299.

List of Programs

Associate of Arts (AA)

Liberal Arts major
Fine Arts specialization

Associate of Science (AS)

Business Administration major
Engineering major
 Computer Science specialization
General Studies major
Science major
 Health Sciences specialization
 Integrated Environmental Studies specialization
 Mathematics specialization
 Medical Technology specialization
Social Sciences major
 Education specialization

Associate of Applied Science (AAS)

Accounting major
Administration of Justice major
Administrative Management Technology major
 Legal Administrative Management specialization
 Medical Administrative Management specialization
Architectural/Civil Engineering Technology major
 Geographic Information Systems specialization
Communication Design major
Culinary Arts major
Dental Hygiene major
Early Childhood Development major
Electrical Engineering Technology major
Horticulture Technology major
Human Services major
Information Systems Technology major
Management major
 Human Resource Management specialization
 Marketing specialization
Mechanical Engineering Technology major
Nursing major
Paralegal Studies major
Radiography major

Technical Studies major
 Mechatronics Technology specialization
 Veterinary Technology major

Certificate Programs

Administrative Management Technology
 AMT: Administrative Professional
 Exercise Science and Personal Training
 General Education
 Geographical Information Systems
 Health Information Management
 HIM: Electronic Medical Records Management
 Practical Nursing
 Radiation Oncology
 Surgical Technology

Career Studies Programs

Accounting
 Administrative Management Technology
 AMT: Executive Assistant
 Advanced Technology in Mechatronics
 Advanced Technology in Mechatronics - Fundamentals
 Air Conditioning and Refrigeration
 Architectural/Civil Engineering Aide
 Automotive Analysis and Repair
 Business Industrial Supervision
 Cisco™ CCNA Networking
 Computer Aided Drafting Career Exploration
 Culinary Arts
 Culinary Arts: Baking and Pastry
 Early Childhood Development
 Electrical Wiring
 Emergency Medical Services - Basic Technician
 Energy Management Systems Introduction
 Energy Management Systems Technician
 Energy Management Systems Installer
 Engineering
 Firefighting and Prevention
 Geographical Information Systems: Career Exploration
 Health Information Management
 HIM: Health Records Coding
 HIM: Medical Office Specialist
 Health Technology
 Pre-Dental Hygiene option
 Pre-Nursing option
 Pre-Radiography option
 Pre-Practical Nursing option
 Pre-Radiation Oncology option
 Pre-Surgical Technology option
 Pre-Veterinary Technology option

Horticulture
 Greenhouse Management
 Landscaping
 Viticulture
 Information Technology
 IT: Database and Program Developer
 IT: Network and Database Administrator
 IT: Web Programmer
 Interior Design
 Maintenance Technology
 Management
 Entrepreneurship Plus
 Human Resource Development
 Organizational Leadership
 Microcomputer Systems Technology
 Water and Wastewater Technology
 Welding: Intensive Welding Training
 Welding: Welding and Metal Processing
 Wellness

Graduation Requirements

The college shall ensure that students who receive associate degrees or certificates shall have completed the established graduation requirements that follow:

Associate Degree

To be eligible for graduation with an associate degree from the college, students must have:

1. Fulfilled all of the course and credit hour requirements of the degree curriculum with at least twenty-five percent of the total semester hours acquired at Virginia Western;
2. Been certified by an appropriate college official for graduation;
3. Earned a grade point average of at least 2.0 in all studies attempted that are applicable toward graduation in their curriculum;
4. Filed an application for graduation in the Records Office;
5. Resolved all financial obligations to the college and returned all library and college materials.

Certificate and Career Studies

To be eligible for graduation with a certificate from the college, students must have:

1. Fulfilled all of the course and credit hour requirements of the curriculum as specified in the college catalog with 25% of the credits acquired at Virginia Western;

2. Been certified by an appropriate college official for graduation;
3. Earned a grade point average of 2.0 in all studies attempted that are applicable toward graduation in their curricula;
4. Filed an application for graduation in the Records Office;
5. Resolved all financial obligations to the college and returned all library and other college materials.

Requirement Term (Catalog Year) for Graduation

The Requirement Term (Catalog Year) used to determine graduation requirements is the one in effect at the time of the student's entry into the college, or any catalog thereafter, as long as the student has maintained continuous enrollment. In cases where students do not maintain continuous enrollment (i.e., non-enrolled for two or more consecutive semesters, excluding the summer semester), graduation requirements are determined by the catalog in effect at the time of their re-entry into the curriculum, or any catalog thereafter, as long as enrollment remains continuous. The catalog to be used in certifying graduation shall not have been in effect more than five years.

Multiple Degrees

Students may be eligible to graduate with multiple degrees and certificates if the content of the curricula differ from one another by at least 25 percent. Questions regarding the awarding of multiple degrees should be directed to the appropriate Academic Dean or to the Registrar.

Students are not eligible to earn more than one degree in the same curriculum. For example, students who earn degrees in a curriculum with a specialization (i.e., an A.S. in Social Sciences with a specialization in Education) will not be eligible to receive a second degree in the same curriculum (i.e., an A.S. in Social Sciences).

Students may not receive multiple degrees in the following curricula:

- AS: Business Administration and General Studies
- AS: Business Administration and Science
- AS: General Studies and Social Sciences
- AS: General Studies and Science
- AS/AA: General Studies and Liberal Arts

- AS/AA: Social Sciences and Liberal Arts
- AS: Social Sciences and Science
- AAS: Accounting and Management

Participation in Commencement

All graduating students are expected to participate in the annual commencement ceremony held at the end of the spring semester. Summer graduates may participate and be recognized in the spring semester commencement ceremony. Students who wish to be excused from commencement must submit a written request (as part of their graduation application) to the Admissions and Records Coordinator/Registrar stating the reason why they will be unable to attend.

Outcomes Assessment Requirement

Students may be required to take one or more tests designed to measure general education achievement and/or achievement in selected major areas prior to graduation for the purpose of evaluation of academic programs. No minimum score or level of achievement is required for graduation. Test results will remain confidential and will be used for the sole purpose of improvement of the college.

General Education Goals and Student Learning Outcomes

The importance of providing every graduate with a strong background in general education is reflected in both the structure and content of the associate degree programs at Virginia Western Community College. Programs typically devote twenty-five percent or more of the credits required for graduation to the study of general education courses, including at least one course from each of the following areas: Humanities/Fine Arts, Social/Behavior Sciences, Natural Sciences/Mathematics, and Health/Physical Education. These general education courses, together with specialized courses in the major field, orientation sessions, and extracurricular activities, are designed to provide each graduate with a collegiate experience that supports the development of the following general education goals:

1. **Communication:** A competent communicator can interact with others using all forms of communication, resulting in understanding and being understood. Degree graduates will demonstrate the ability to:

- (a) understand and interpret complex materials;
- (b) assimilate, organize, develop, and present an idea formally and informally;
- (c) use standard English;
- (d) use appropriate verbal and non-verbal responses in interpersonal relations and group discussions;
- (e) use listening skills;
- (f) recognize the role of culture in communication.

2. **Critical Thinking:** A competent critical thinker evaluates evidence carefully and applies reasoning to decide what to believe and how to act. Degree graduates will demonstrate the ability to:

- (a) discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data;
- (b) recognize parallels, assumptions, or resuppositions in any given source of information;
- (c) evaluate the strengths and relevance of arguments on a particular question or issue;
- (d) weigh evidence and decide if generalizations or conclusions based on the given data are warranted;
- (e) determine whether certain conclusions or consequences are supported by the information provided;
- (f) use problem solving skills.

3. **Cultural and Social Understanding:** A culturally and socially competent person possesses an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities. Degree graduates will demonstrate the ability to:

- (a) assess the impact that social institutions have on individuals and culture-past, present, and future;
- (b) describe their own as well as others' personal ethical systems and values within social institutions;
- (c) recognize the impact that arts and humanities have upon individuals and cultures;
- (d) recognize the role of language in social and cultural contexts;
- (e) recognize the interdependence of distinctive

worldwide social, economic, geopolitical, and cultural systems.

4. **Information Literacy:** A person who is competent in information literacy recognizes when information is needed and has the ability to locate, evaluate, and use it effectively (adapted from the American Library Association definition). Degree graduates will demonstrate the ability to:

- (a) determine the nature and extent of the information needed;
- (b) access needed information effectively and efficiently;
- (c) evaluate information and its sources critically and incorporate selected information into his or her knowledge base;
- (d) use information effectively, individually or as a member of a group, to accomplish a specific purpose;
- (e) understand many of the economic, legal, and social issues surrounding the use of information and access and use information ethically and legally.

5. **Personal Development:** An individual engaged in personal development strives for physical wellbeing and emotional maturity. Degree graduates will demonstrate the ability to:

- (a) develop and/or refine personal wellness goals;
- (b) develop and/or enhance the knowledge, skills, and understanding to make informed academic, social, personal, career, and interpersonal decisions.

6. **Quantitative Reasoning:** A person who is competent in quantitative reasoning possesses the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues. A person who is quantitatively literate can use numerical, geometric, and measurement data and concepts, mathematical skills, and principles of mathematical reasoning to draw logical conclusions and to make well-reasoned decisions. Degree graduates will demonstrate the ability to:

- (a) use logical and mathematical reasoning within the context of various disciplines;
- (b) interpret and use mathematical formulas;

- (c) interpret mathematical models such as graphs, tables and schematics and draw inferences from them;
 - (d) use graphical, symbolic, and numerical methods to analyze, organize, and interpret data;
 - (e) estimate and consider answers to mathematical problems in order to determine reasonableness;
 - (f) represent mathematical information numerically, symbolically, and visually, using graphs and charts.
7. **Scientific Reasoning:** A person who is competent in scientific reasoning adheres to a self-correcting system of inquiry (the scientific method) and relies on empirical evidence to describe, understand, predict, and control natural phenomena. Degree graduates will demonstrate the ability to:
- (a) generate an empirically evidenced and logical argument;
 - (b) distinguish a scientific argument from a non-scientific argument;
 - (c) reason by deduction, induction and analogy;
 - (d) distinguish between causal and correlational relationships;
 - (e) recognize methods of inquiry that lead to scientific knowledge.

Computer Competency

Virginia Western Community College ensures that students are able to demonstrate college entry-level computer skills necessary for academic success and discipline-specific skills necessary for successful transfer or employment.

Program Competencies

The AS and AA degree programs are designed for students who plan to transfer to a four-year college or university baccalaureate degree. Upon completion of an AA or AS program, the graduate should have:

1. A broad, general education and the knowledge and skills required of all associate degree students at Virginia Western;
 2. Computer literacy competencies required of all associate degree students at Virginia Western;
 3. The educational knowledge and skills resulting from completing a core of major courses that will provide support for the student's transfer goals;
4. The course work needed to transfer as an upper-level student to a four-year college or university with little or no loss of credit;
 5. The academic background and study skills needed to succeed after transferring to a baccalaureate degree program.

AAS degree programs are designed to prepare students for direct entry into the job market in technical and paraprofessional fields. A few of the programs also prepare students to transfer to selected baccalaureate degree programs. Upon completion of an AAS degree program, the graduate should have:

1. A broad, general education and the knowledge and skills required of all associate degree students at Virginia Western;
2. Computer literacy competencies required of all associate degree students at Virginia Western;
3. The educational background and occupational training necessary for immediate employment;
4. The skills and knowledge needed to perform satisfactorily on the job;
5. The course work necessary to transfer to and succeed in baccalaureate degree programs that accept transfer students from technical degree programs.

Certificate programs are designed to prepare students for direct entry into the job market as technicians, skilled, and semi-skilled workers. Upon completion of a certificate program, the graduate should have:

1. A background in general education;
2. The educational background and occupational training necessary for immediate employment;
3. The skills and knowledge needed to perform satisfactorily on the job.

Career Studies programs are designed to prepare students for direct entry into the job market in occupational fields that require entry-level skills and knowledge. Some of the programs also provide persons already employed with an opportunity to upgrade their skills and knowledge. Upon completion of a career studies program, the graduate should have:

1. Entry-level skills and knowledge needed for immediate employment in selected fields;
2. The skills and knowledge needed to perform satisfactorily on the job;

3. Up-to-date knowledge and skills in a designated occupational area.

Distance Learning

Distance learning courses are provided to accommodate the needs of students who cannot attend campus-based classes due to distance or time constraints. These courses fall into two broad groups: synchronous and asynchronous.

Synchronous Courses

Synchronous courses are provided to students at remote locations, such as another college or a VWCC off-campus center with a specially equipped electronic classroom. The instructor communicates with students through a live, two-way audio/ video link. These courses have regularly scheduled class meetings and are essentially the same as regular courses except for the fact that two or more sites are connected. They are called synchronous distance learning courses because teaching and learning takes place at the same time, even though the teacher and students are at different locations.

Asynchronous Courses

Asynchronous courses normally do not have class meetings. Courses designated as hybrid require campus class meetings for some of the instruction; the remainder of the course is asynchronous. Students receive a syllabus and instructional materials, such as prerecorded videotaped programs, that they use independently. They are called asynchronous distance learning courses because the students are learning at a time and place of their own choosing. These courses are designed for students with the need and ability for an independent learning environment instead of the traditional classroom setting. Distance education courses offer a flexible, convenient alternative to regular courses with equivalent requirements and standards. A qualified instructor is assigned to each course to guide, assist, and evaluate students. The amount and methods of interaction between students and the instructor vary.

Distance learning courses have the same content, grading system, and credit value as campus-based courses. The tuition is also the same for in-state students. Learning resources and support services are available to students in distance learning courses;

moreover, special accommodations are available, such as access to library materials by phone or mail. While synchronous courses are often restricted to students in a special program at another institution, asynchronous courses are open to all qualified students. Registration information is provided in the Schedule of Classes each semester and is available from the Admissions Office.

Weekend College

Virginia Western's Weekend College is an innovative program designed to meet the educational needs of adult learners. Weekend college is intended for students whose other responsibilities prevent them from attending classes during the week, who want to accelerate their progress toward a degree, or who desire a more flexible schedule for completing their coursework. Through a combination of weekend courses and distance-learning classes, students enrolled in Weekend College can complete the requirements that lead to an AS degree in General Studies or Social Sciences. These curricula are specifically designed for students who want to transfer to a four-year college or university.

Each Weekend College class meets on alternating Saturdays, half the number of hours that day and evening classes normally meet. To maintain the academic quality of these courses, instructors supplement classroom instruction with additional materials that students study independently between class meetings. Because of the format for weekend courses, attendance at each of the eight class meetings is crucial for student success, as are class participation and the completion of assignments between classes. For further information about Weekend College, please call the School of Liberal Arts and Social Sciences at (540) 857-7271.

Honors Institute

The goal of the Honors Institute at Virginia Western Community College is to offer academic, cultural, and practical opportunities for academically talented students. The Honors Institute offers intellectually stimulating course work through Honors contracts and Honors classes. The organization places emphasis on student exploration of new ideas, in-depth discussion, and critical thinking. Cultural events, field trips, and participation in the Honors Organization provide opportunities for learning outside of the classroom,

while building long-lasting relationships with fellow honors students and faculty members.

The benefits of membership in the Honors Institute include: Honors designation on diploma and transcripts; small, seminar-style classes; special recognition at graduation for Honors Institute graduates; individualized academic and career advisement; early registration for classes; assistance with university transfers; strong academic and social relationships with other highly motivated students; use of the Honors Institute computer lab and private study room.

Students must apply for membership to the Honors Institute. A combination of factors determines admission:

For students new to Virginia Western; a 3.5 GPA, SAT 1650 (New SAT), top 10% of high school graduating class, and two letters of reference.

For students enrolled at Virginia Western; completion of 12 credit hours with a cumulative 3.2 GPA, and 2 on-campus references.

Direct interest or questions to:

The Honors Institute
Duncan Hall Room 215
Virginia Western Community College
P.O. Box 14007
Roanoke, Virginia 24038

540-857-6240
honorsinstitute@viriniawestern.edu

General Studies degree... distance learning

The Virginia Community College System and the State Council of Higher Education have approved Virginia Western's General Studies degree program as a transfer degree program.

Below is a list of the courses offered via distance learning and/or Weekend College to fulfill the requirements for the AS degree in General Studies and Social Science from Virginia Western. For complete information on degree requirements, refer to the General Studies degree section and the Social Science degree section of this catalog.

SDV 100 College Success Skills (or SDV 108)	1 CR
ENG 111-112 College Composition I-II	6 CR
ITE 115 Basic Computer Competency	3 CR
HLT 110 Concepts of Personal & Community Health	2 CR
BIO 101-102 General Biology I-II*	8 CR
MTH 151 Mathematics for Liberal Arts I	3 CR
MTH 157 Elementary Statistics (or elective)	3 CR
ENG 241-242 Survey of American Literature I-II***	6 CR
HIS 121-122 U.S. History I-II or	
HIS 111-112 History of World Civilization I-II	6 CR

* BIO 101-102 students must attend a few on-campus labs on Saturdays.

**ENG 243-244 may be substituted for ENG 241-242.

Humanities electives	6 CR
ART 101-102 History and Appreciation of Art I-II	
HUM 201-202 Survey of Western Culture I-II	
MUS 121-122 Music Appreciation I-II	
PHI 101 Introduction to Philosophy	
REL 200 Survey of the Old Testament	
REL 230 Religions of the World	

Social Science electives (any three)	6 CR
ECO 20-2012 Principles of Economics I-II	
PLS 211-212 U.S. Government I-II	
PSY 200 Principles of Psychology	
PSY 215 Abnormal Psychology	
SOC 200 Principles of Sociology	

CST 100 Principles of Public Speaking.....	3 CR
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General transfer electives	9 CR
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Total credits for AS in General Studies	62 CR
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Social Sciences degree... distance learning

The Virginia Community College System and the State Council of Higher Education have approved Virginia Western's General Studies degree program as a transfer degree program.

Below is a list of the courses offered via distance learning and/or Weekend College to fulfill the requirements for the AS degree in Social Science from Virginia Western. For complete information on degree requirements, refer to the Social Science degree section of this catalog.

SDV 100 College Success Skills (or SDV 108)	1 CR	ECO 201 Principles of Economics I	3 CR
ENG 111-112 College Composition I-II	6 CR	PSY 200 Principles of Psychology	3 CR
ITE 115 Basic Computer Competency	3 CR	SOC 200 Principles of Sociology	3 CR
HLT 110 Concepts of Personal & Community Health	2 CR	CST 100 Principles of Public Speaking.....	3 CR
BIO 101-102 General Biology I-II*	8 CR	Humanities electives	3 CR
MTH 151 Mathematics for Liberal Arts I	3 CR	ART 101-102 History and Appreciation of Art I-II	
MTH 157 Elementary Statistics (or elective)	3 CR	ENG 242 Survey of American Literature II	
ENG 241 Survey of American Literature I-II***	3 CR	HUM 201-202 Survey of Western Culture I-II	
HIS 121-122 U.S. History I-II or		MUS 121-122 Music Appreciation I-II	
HIS 111-112 History of World Civilization I-II	6 CR	Social Science electives (any three)	9 CR
		ECO 202 Principles of Economics II	
		HIS 269 Civil War & Reconstruction (or other HIS electives)	
		PLS 211-212 U.S. Government I-II	
		PSY 215 Abnormal Psychology (or other PSY electives)	
		General transfer electives	3 CR
		Total credits for AS in General Studies	62 CR

* BIO 101-102 students must attend a few on-campus labs on Saturdays.

**ENG 242, 243, 244 may be substituted for ENG 241.

Top Ten Reasons for Attending Virginia Western Community College	
1 Teaching is a top priority	Faculty at comprehensive four-year colleges and universities often are heavily involved in research and graduate students teach many classes. However, at Virginia Western all full-time faculty are professional college teachers. Except for some who teach specialized technical courses, all Virginia Western faculty have a master's degree or doctorate in their teaching field. Adjunct (part-time) instructors are also fully qualified, and many adjunct faculty bring a wealth of practical experience to the classroom.
2 Personal attention and support	The college's commitment to teaching is also reflected in the average class size of approximately 20 students. At Virginia Western, there are no large classes taught in lecture halls. Students receive personal attention during and outside of class. Graduates consistently give faculty high marks for their attitude toward students and the quality of instruction.
3 Affordable	The average cost of attending a public liberal arts college or university in Virginia is \$5,000 per year for tuition and fees, plus an additional \$5,000 for room and board. (Tuition at private colleges averages about \$15,000 per year.) By comparison, tuition and fees for a full-time student at Virginia Western averages just \$2,000 per year. Thus, attending Virginia Western for the first two years of college can result in substantial savings.
4 Convenient location	Area residents do not have to leave their family and job to go to college. If they choose to, they can live at home and continue working while attending Virginia Western. The campus is easily accessible to residents throughout the Roanoke area.
5 Flexible class scheduling	Students in most programs of study at Virginia Western can attend evening or day classes, based on their personal preference, family responsibilities, and work schedule. Students can enroll on a full-time basis and earn an associate degree in two years, or attend part-time and advance at their own pace.
6 Excellent facilities	Classrooms and laboratories are well maintained and equipped with state-of-the-art technology. Satellite receivers and fiber optic cable link Virginia Western classrooms and computer labs to a network of resources both within and beyond the campus. The college's library has extensive holdings and is fully automated. Elevators, ramps, and other accommodations provide access to persons with physical disabilities. Abundant, well-lighted parking is provided, and campus security personnel are available around-the-clock for assistance.
7 Educational support for students	In order to help students establish and achieve their goals, a staff of full-time counselors provides personal assistance. Individual and group counseling is offered to students seeking help with educational, career, or personal needs. To provide a well-rounded college experience, the Student Activities Office sponsors a variety of student organizations, co-curricular programs and special events. In addition, the Knisely Learning Technology Center serves as a place for students to obtain individual attention for their academic needs. As a supplement to regular classroom instruction, the Learning Technology Center provides tutoring, computer-aided instruction, audio/visual programs, and other helpful resources. Special assistance for students with disabilities is also available.
8 Smooth transfer of credits	Statewide transfer agreements between the Virginia Community College System and four-year colleges and universities, plus individual arrangements with specific institutions, enable Virginia Western students to complete at least the first two years of study toward a bachelor's degree. Feedback from four-year institutions consistently indicates that Virginia Western graduates are well-prepared for transfer: typically over 90% are reported to be in good standing, having experienced little if any drop in their grade point average.
9 Our graduates get great jobs	A college education is becoming increasingly valuable to compete in the job market. Graduates of Virginia Western's occupational/technical programs have reported excellent employment success. The most recent alumni survey showed over 90% employed either full-time or part-time and nearly 70% working in a program-related field. Employment rates and starting salaries were especially high in health technology, business, and engineering technology fields.
10 Open to everyone. We're the community's college	All persons with the desire and ability to benefit from college are welcome at Virginia Western. Upon admission to the college, each academic program requires a minimum level of proficiency in English and mathematics; however, preparatory courses and academic support services are provided to students who lack the necessary foundation for success. At the other end of the continuum, an honors program is available for academically gifted students. Most classes consist of a broad range of students, reflecting the diverse population of the community.

Table 5-1A VCCS Degree Requirements

Area	Distribution
<p>General Education General education is that portion of the collegiate experience that addresses the knowledge, skills, attitudes, and values characteristic of educated persons. It is unbounded by disciplines and honors the connections among bodies of knowledge. The associate degree programs within the VCCS support a collegiate experience that focuses on seven goal areas: communication; critical thinking; cultural and social understanding; information literacy; personal development; quantitative reasoning; scientific reasoning.) The general education goals areas outlined below are to be introduced in the foundational courses and enhanced in program and elective courses. (Note: Some of the categories include two goals areas when a single course may provide foundations in both goal areas.)</p>	<p>Minimum 15 credits (Students must take at least one course in each of the five areas listed, to total at least 15 credits.)</p>
<p>I. Foundations in Communication: Courses designed to enable students to interact with others using all forms of communication, resulting in understanding and being understood.</p>	<p>II. Foundations in Critical Thinking and Information Literacy: Courses designed to enable students to evaluate evidence carefully and apply reasoning to decide what to believe and how to act, and to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.</p>
<p>III. Foundations in Cultural and Social Understanding: Courses designed to enable students to have an awareness, understanding, and appreciation of the interconnectedness of the social and cultural dimensions within and across local, regional, state, national, and global communities. IV. Foundations in Personal Development: Courses designed to enable students to strive for physical well-being and emotional maturity.</p>	<p>IV. Foundations in Personal Development: Courses designed to enable students to strive for physical well-being and emotional maturity.</p>
<p>V. Foundations in Quantitative and Scientific Reasoning: Courses designed to enable students to possess the skills and knowledge necessary to apply the use of logic, numbers, and mathematics to deal effectively with common problems and issues, and to adhere to a self-correcting system of inquiry (the scientific method) and rely on empirical evidence to describe, understand, predict, and control natural phenomena.</p>	
<p>Program Requirements Major Field Core Related/Specialization Courses Electives</p>	<p>Minimum 15 credits* Maximum 15 credits 0–15 credits</p>
<p>Totals</p>	<p>AA/AS/AA&S:** 60–63 credits</p>
	<p>AAA/AAS: 65–69 credits***</p>

* Language in Section 5.1.0.0.1 of the VCCS Policy Manual states 25% of the courses in the degree program (15–18 credits) must be common across majors within a degree. The shared courses must be major or related/specialization courses.
 ** Credit range for engineering programs is 60–72 semester hour credits.
 *** Credit range for AAA/AAS programs is 65–69, including nursing. For other programs in the Health Technologies, the range is 65–72 semester hour credits.

Table 5-1B Minimum Requirements for Associate Degrees in the VCCS

General Education	Minimum Number of Semester Hour Credits				
	(1) AA	(2) AS	(3) AA&S	(4) AAA/AAS	
Communication ^(a)	6	6	6	3	
Humanities/Fine Arts	6	6	6	3	
Foreign Language (Intermediate Level)	6	0	0	0	
Social/Behavioral Sciences	9	9 ^(b)	9	3 ^(c)	
Natural Sciences/ Mathematics	7 6	7 6 ^(d)	7 6 ^(d)	0 0	}3 ^(c)
Personal Development ^(e)	2	2	2	2	
Other Requirements for Associate Degree: Major field courses and electives (columns 1–3) Career/technical courses (column 4)	<u>18-21</u>	<u>24-27</u>	<u>24-27</u>	49-53 ^(f)	
Total for Degree^(g)=	60-63	60-63^(h)	60-63^(h)	65-69^(h)	

Notes:

The VCCS Policy Manual, Section 2-IV-C, defines general education within the VCCS. Sections 2.7.3, 3.4.10, and 3.5.1 of the Southern Association of Colleges and Schools (SACS) Principles of Accreditation specify general education requirements. Colleges must address all SACS requirements, the SCHEV Core Competencies, and the general education goal areas listed in this VCCS Policy Manual.

- a) Must include at least one course in English composition.
- b) Only 6 semester hours of social/behavioral sciences are required for engineering majors who plan to transfer to a baccalaureate degree engineering program that requires 6 or fewer hours in this category, provided that the college/university publishes such requirements in its transfer guide.
- c) While general education courses other than those designed for transfer may be used to meet portions of these requirements, SACS principles require that general education courses be general in nature and must not "...narrowly focus on those skills, techniques, and procedures peculiar to a particular occupation or profession."
- d) Only 3 semester hours of mathematics are required for the General Studies major.
- e) Personal development includes health, physical education, or recreation courses that promote physical and emotional well being and student development courses. Must include at least one student development course.
- f) AAA/AAS degrees must contain a minimum of 15 semester hours of general education. Students should plan to take at least 30 hours in the major; the remaining hours will be appropriate to the major.
- g) All college-level course prerequisites must be included in the total credits required for each program.
- h) Credit range for engineering programs is 60–72 semester hour credits. Credit range for AAA/AAS programs is 65–69, including nursing. For other programs in the Health Technologies, the range is 65–72 semester hour credit.