5.0 **Types of Programs** (see also, Section 2-A) (SB)

In determining the curricula and programs to be offered in each college under the jurisdiction of the State Board, the State Board shall take cognizance of the varying needs of the communities served through the Virginia Community College System and the substantiated requests of interested local governing bodies, employers, and individuals. These programs shall include, but not be limited to, the following:

5.0.0 **Career/Technical Education**

Career/technical education programs shall be designed to meet the increasing demand for technicians, semiprofessional workers, apprentices, and skilled crafts persons for employment in industry, business, the professions, and government. These programs normally require two years or less of training beyond high school. They may include preparation for agricultural, business, engineering, health and medical, industrial, service, and other technical and occupational fields. The curricula shall be planned primarily to meet the needs for workers in the region being served by the community college, but the State Board may designate certain community colleges as centers to serve larger areas of the state in offering expensive and highly specialized occupational and technical education programs. See Section 5.1.0 for types of career/technical curricula.

5.0.1 **College Transfer Education**

College transfer programs shall include courses the first two years of a baccalaureate program in arts and sciences and preprofessional programs meeting standards acceptable for transfer to baccalaureate degree programs. These programs shall be of equal content and quality to those provided in the four-year, degree-granting institutions to facilitate the transfer of students from the community college to four-year colleges and universities. See Section 5.1.0 for types of college transfer curricula.

5.0.2 **General Education**

5.0.2.0 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. VCCS degree graduates will demonstrate competency in the following general education areas: communication, critical thinking, cultural and social understanding, information literacy, personal development, quantitative reasoning, and scientific reasoning.

5.0.2.1 The associate degree programs within the Virginia Community College System support a collegiate experience that focuses on the above definition and attendant areas. The general education outcomes shall be included in the catalog of each college.
VCCS degree graduates will demonstrate competency in the following general education areas:

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 presuppositions 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 world-wide social, economic, geo-political, 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 well-being 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.

5.0.3 **Developmental Programs**

Developmental or preparatory programs shall be offered to prepare individuals for admission to the college transfer programs and the career/technical programs in the community college. These developmental programs shall be designed to develop the basic skills and understandings necessary to succeed in other community college programs.

5.0.4 **Workforce Development Programs**

Workforce Development Programs help Virginia businesses and industries to be globally competitive by supporting the economic development goals of the Commonwealth and local governments. Such programs may provide credit and non-credit customized training, general education and special skill building programs, and services such as organizational consulting, applicant assessment, career placement or any related service within the capabilities and financial resources of each college individually, collectively or with external partners.

5.0.5 **Continuing Adult Education**

Adult education programs shall be offered to enable adults to continue their learning experiences. This may include both credit and non-credit work.

5.0.6 **Community Services**

Community services include various programs and activities that provide public service to the citizens and organizations of the region. This service includes programs such as 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.
5.1 Curricula

5.1.0 Curricular Design for Degrees

The State Board shall establish minimum standards and shall authorize community colleges to award appropriate associate degrees, diplomas, certificates, and career studies certificates, to individuals who satisfactorily complete course and program requirements.

5.1.0.0 Curricular Design (SB)

The curricular design for degree programs in the VCCS consolidates all present and currently anticipated curricula into five degrees. The degrees are organized into College Transfer and Career/Technical programs.

College Transfer Education

- Associate of Arts (AA)
- Associate of Science (AS)
- Associate of Arts and Sciences (AA&S)

Career/Technical Education

- Associate of Applied Arts (AAA)
- Associate of Applied Science (AAS)
  - Agricultural & Natural Resources Technology
  - Arts & Design Technology
  - Business Technology
  - Engineering & Industrial Technology
  - Health Technology
  - Public Service Technology

Degrees include one or more "Majors," some of which may be further divided into appropriate "Specializations." The minimum requirements for associate degrees are outlined in Table 5-1 on the following page.
Table 5-1A  
VCCS Degree Requirements

<table>
<thead>
<tr>
<th>Area</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL EDUCATION</td>
<td>Minimum 15 credits</td>
</tr>
<tr>
<td>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 goal 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 goal areas when a single course may provide foundations in both goal areas.)</td>
<td>(Students must take at least one course in each of the five areas listed, to total at least 15 credits.)</td>
</tr>
</tbody>
</table>

I. Foundations In Communication:  
Courses designed to enable students to interact with others using all forms of communication, resulting in understanding and being understood.

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.

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.

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.

PROGRAM REQUIREMENTS  
| Major Field Core | Minimum 15 credits* |
| Related/Specialization Courses | Maximum 15 credits |
| Electives | 0-15 credits |

| TOTALS | AA/AS/AA&S: |
| | 60-63 credits** |
| | AAA/AAS: |
| | 65-69 credits*** |

*Language in Section 5.1.0.1 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

<table>
<thead>
<tr>
<th>General Education:</th>
<th>(1) AA</th>
<th>(2) AS</th>
<th>(3) AA&amp;S</th>
<th>(4) AAA / AAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication(a)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Humanities / Fine Arts</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (Intermediate Level)</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Social / Behavioral Sciences</td>
<td>9</td>
<td>9(^{(b)})</td>
<td>9</td>
<td>3(^{(c)})</td>
</tr>
<tr>
<td>Natural Sciences /</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6</td>
<td>6(^{(d)})</td>
<td>6(^{(d)})</td>
<td>0</td>
</tr>
<tr>
<td>Personal Development (^{(e)})</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Other Requirements for Associate Degrees:

- Major field courses and electives (columns 1-3) 18-21 24-27 24-27 49-53\(^{(f)}\)
- Career/technical courses (column 4) __________
- 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.

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.