Cooperative Technology Programs

The College of Technology
Public Act 92-126 created the "Connecticut College of Technology," a unique pathway curriculum that allows individuals to begin their studies at a community technical college and transfer directly to CCSU's School of Engineering and Technology.

The technology pathway for entry into CCSU's School of Engineering and Technology consists of core courses that will serve as the foundation of the BS degree in biomolecular sciences, engineering, engineering technology, industrial technology, and technology and engineering education. Continuation at CCSU will require a minimum course grade of C and completion of the college credits listed below.

The College of Technology offers students:
- a clear pathway from a two-year college to a four-year university, without loss of credits or repeated coursework;
- the opportunity to begin their education on a full- or part-time basis at any of Connecticut's 12 community-technical colleges;
- low costs by completing the first two years of study at a community-technical college; and
- direct admission into CCSU's School of Engineering and Technology.

A student can complete a minimum of 30 credits or up to 60 credits at any CSU campus with at least a grade C in each course before continuing at CCSU.

The pathway coordinator has been identified at each CSU campus. For information, contact the associate dean of the School of Engineering and Technology at CCSU.

Biomolecular Sciences Pathway/Degree Program
The Biomolecular Sciences Pathway, for entry into CCSU's undergraduate BS degree programs in biomolecular sciences and biochemistry, consists of coursework in mathematics and the natural sciences-biology, chemistry, and physics.

General Education Core (69 credits)

<table>
<thead>
<tr>
<th>Arts/Humanities/Social Science/Behavioral Science/Communication</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>English Language (Freshman Composition)</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy or Fine Arts Electives</td>
<td>6</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Psychology, Sociology, or Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Economics, Geography, or Political Science</td>
<td>6</td>
</tr>
<tr>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>Subtotal (maximum)</td>
<td>27</td>
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</table>

<table>
<thead>
<tr>
<th>Mathematics/Science</th>
<th></th>
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<tbody>
<tr>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Trigonometry or Pre-Calculus</td>
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</tr>
<tr>
<td>Subtotal (minimum)</td>
<td>15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>Directed Elective-General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>Directed Elective-General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>Subtotal (minimum)</td>
<td>12</td>
</tr>
</tbody>
</table>

Specialization Electives:
- Genetics 3
- General Physics II 4
- General Chemistry II 4
Molecular and Cellular Biology or Anatomy and Physiology I
Subtotal 15

* Major-specific electives appropriate for this pathway may be different for each community-technical college. Consult your College of Technology site co-coordinator for further information.

**Engineering Science Pathway/Degree Program**

The Engineering Pathway, for entry into CCSU's School of Engineering and Technology and the Schools of Engineering at University of Connecticut, University of New Haven, Fairfield University, and University of Hartford, consists primarily of coursework in engineering, mathematics, and the sciences. In addition to the courses shown below, a grade average of B is required for continuation at UConn's School of Engineering to earn a bachelor's degree. Credit is awarded for all courses in which a grade of C or above is earned.

**Engineering Science Programs:**
- Chemical engineering
- Civil engineering
- Computer science and engineering
- Electrical engineering
- Mechanical engineering
- Material engineering (as a double major with one of the above)
- Acoustic (University of Hartford only)
- Biomedical (University of Hartford only)

**Engineering Science Curriculum** (63 credits)

**Arts/Humanities/Social Science/Behavioral Science/Communication:**
- Composition 3
- Fine Arts Elective 3
- Philosophy and Ethical Analysis 3
- Western Culture 3
- Social Science Elective 3
Subtotal 15

**Mathematics/Science:**
- Calculus I 3 or 4
- Calculus II 3 or 4
- Multivariable Calculus (Calculus III) 4
- Differential Equations 4
- General Chemistry I and II with Laboratory 4/4
- Engineering Physics I and II 4/4
Subtotal (minimum) 30

**Engineering Science:**
- Introduction to Engineering or equivalent 3 or 4
- Applied Mechanics I and II 3/3
- Computer Programming 3
Subtotal (minimum) 12

Major-specific electives 6

Note: The engineering science curriculum may require additional coursework beyond the College of Technology. These extra credits can be acquired as part of the College of Technology consortia arrangement. Consult your College of Technology site co-coordinator for additional information.

**Technology Studies Pathway/Degree Program**

The Technology Studies Pathway prepares students for entry into the Department of Engineering in CCSU's School of Engineering and Technology. After completion of two years of initial study at a community college and another two years at CCSU, the student will receive a BS degree with a major in any one of the three programs listed below. The civil, manufacturing, and mechanical engineering technology programs are accredited by TAC of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202; phone: 410-347-7700. A minimum grade of C in the courses listed below will transfer into any of the five engineering technology programs currently offered at CCSU.

**Engineering Technology Programs:**
- Civil
General Education Core (65-69 credits)

Arts/Humanities/Social Science/Behavioral Science/Communication:
- English Language (Freshman Composition) 3
- Technical Writing 3
- Public Speaking 3
- Philosophy and Fine Arts 6
- History 3

Economics, Geography, Political Science, or History 6
Anthropology, Psychology or Sociology 3
Subtotal (maximum) 27

Mathematics/Science:
- General Chemistry I with Laboratory 4
- General or University Physics I with Laboratory 4
- Statistics 3 or 4
- Pre-calculus or Pre-calculus with Trigonometry 3 or 4
Subtotal (maximum) 16

Technology:
- Technical Drafting or CAD 3
- Directed Elective 3
- Directed Elective 3
Subtotal 9

Specialization Electives:
- Physics II or General Physics II 4
- Calculus I 4 or 5
- Calculus II 4 or 5
- Technical Elective-Dynamics 3
Subtotal 15-17

Technology Studies Pathway/Degree Program
The Technology Studies Pathway, for entry into CCSU's School of Engineering and Technology or Charter Oak State College, consists of courses that provide for a BS degree from Charter Oak State College, with a minor in technology, or from CCSU in one or more of the fields listed below. A minimum course grade of C and the credits described below are required for continuing at CCSU's School of Engineering and Technology or at Charter Oak State College.

Technology
- Construction management
- Electronics technology

Industrial Technology Specializations
- Computer networking
- Electro-mechanical technology
- Environmental/occupational safety
- Graphics technology
- Manufacturing
- Technology management**

**Two-year associate degree plus two years of CCSU coursework. For more information, see www.technology.ccsu.edu.

General Education Core (62-68 credits)

Arts/Humanities/Social Science/Behavioral Science/Communication:
- English Language (Freshman Composition) 3
- Public Speaking 3
- Technical Writing 3
- Philosophy and Fine Arts 6
- History and Economics 6
- Geography, Political Science, or History 3
Psychology or Sociology 3
Subtotal 27

Mathematics/Science:
Introduction to Chemistry or General Chemistry I* 3 or 4
Introduction to Physics or General Physics I* 3 or 4
Statistics 3 or 4
Trigonometry or Pre-Calculus 3 or 4
Subtotal 12-16

Technology/Management Core:
Technical Drafting/CAD 3
Directed Electives 6
Subtotal 9

Specialization Electives:
Technical Electives 15
Subtotal 15

*General Chemistry I and General Physics I are required for construction management majors; and General Chemistry I and II are required for biomolecular sciences majors

Technology and Engineering Education K - 12

The program prepares its graduates for teacher certification to teach technology and engineering education in grades K-12 in the public schools of Connecticut. In addition to careers in public school teaching, technology education graduates may also function as instructors or supervisors in private and post-secondary schools, industry, government, and rehabilitation programs.

General Education Core (64-65 credits)

Arts/Humanities/Social Science/Behavioral Science/Communication:
English Language (Freshman Composition) 3
Public Speaking 3
Philosophy and Fine Arts 6
U.S. History 3
Economics, Geography, Political Science, or History 6
Psychology-Life Span Development 3
Anthropology, Psychology, or Sociology 3
Subtotal 27

Mathematics/Science:
Introduction to Chemistry 3
Introduction to Physics 3
Statistics 3-4
Pre-calculus with Trigonometry 4
Subtotal 13-14

Technology:
Technical Drafting/CAD 3
Directed Electives 6
Subtotal 9

Specialization Electives:
Material Science 3
Material Processing 3
Basic Electrical Circuits 3
Applied Statics and Strength of Materials 3
Directed Elective 3
Subtotal 15