

## RTTT Career and Technical Education STEM Program Descriptions

<b>Program Title</b>	<b>Engineering Technology 8607000</b>
<b>CTE Courses and Descriptions</b>	<p>This three-course, project-based program provides students with a foundation of knowledge and technically oriented experiences in the study of engineering technologies, their effect upon our lives, and the nature of engineering, design, and problem-solving techniques and methodologies. The content and activities also support building safety, teamwork, and leadership skills. This program focuses on transferable skills and stresses understanding and demonstration of the technological tools, machines, instruments, materials, processes and systems in the engineering field.</p> <p><b>8600570 Engineering Technology I</b>  <b>8600670 Engineering Technology II</b>  <b>8601770 Engineering Technology III</b></p> <p>Students completing the program are encouraged to complete the Advanced Applications in Technology program (8601900), a capstone opportunity to develop a school-based project from "vision" to "reality". Working in teams, students design, engineer, manufacture, construct, test, redesign, test again; and then produce a finished "project". This involves applying both technical and academic knowledge and skills to be successful.</p>
<b>Integrated Core Course(s)</b>	Algebra 1
<b>Teacher Certification(s)</b>	Technology Education (TECH ED 1@2) Engineering 7 G (ENG 7 G) Engineering Technology 7 G (ENG TEC 7 G)
<b>Industry Certification(s)</b>	Autodesk Certified Associate - AutoCAD (ADESK016) Autodesk Certified Associate - AutoCAD Civil 3D (ADESK018) Autodesk Certified Associate - Inventor (ADESK019) Autodesk Certified Associate - Revit Architecture (ADESK020) Autodesk Certified Professional - AutoCAD (ADESK021) Autodesk Certified Professional - Inventor (ADESK024) Certified LabVIEW Associate Developer (CLAD) (NINSC001) Certified Solidworks Associate (CSWA) (SOLID001) Certified Solidworks Professional (CSWP) (SOLID002) Mastercam Certified Programmer Mill Level I (CNCSI001)
<b>Number of Articulated Credits</b>	None.
<b>Implementation Costs</b>	<p><b>Startup Costs (approximate): \$120,000</b>  This is a turnkey 20-seat estimate and includes computers, software, peripheral equipment, furniture, course-specific equipment, textbooks, and training for one teacher. This estimate does not include any instructional technology items such as smart boards, computer projection devices, etc.</p> <p><b>Recurring Costs (approximate): \$8,000</b>  This includes software lease renewals and replacement consumables.</p>
<b>Recommended Feeder Programs/Course</b>	None currently available