

UTICA CENTER FOR SCIENCE AND INDUSTRY (UCSI)
Course Sequence
MECHATRONICS

9 th	10 th	11 th	12 th
<p>UCSI DESIGN PRINCIPLES/UCSI TECHNICAL ILLUSTRATION [1 hr] [20 weeks each]</p>	<p>UCSI-ELECTRONICS [1 hr] (basic, digital, analog)</p>	<p>MECHATRONICS I [1 hr] Amatrol curriculum for Electronics, Pneumatics, Robotics</p>	<p>MECHATRONICS II [2 hrs] (math embedded) Amatrol curriculum for Programmable Logic Controllers plus senior project</p>
<p>UCSI-ENGLISH 9 English 9 HSCE's with Engineering, Manufacturing, Industrial Technology, (EMIT) focus</p>	<p>UCSI-ENGLISH 10 English 10 HSCE's with EMIT focus</p>	<p>UCSI-ENGLISH 11 English 11 HSCE's with EMIT focus</p>	<p>UCSI-ENGLISH 12 English 12 HSCE's with EMIT focus</p>
<p>UCSI-GEOMETRY Geometry HSCE's for most students taught in context of Engineering, Manufacturing, Industrial Technology (EMIT)</p> <p>Possibly utilize Michigan Virtual online Algebra II for advanced math students</p>	<p>UCSI-ALGEBRA I OR ALGEBRA II Algebra I HSCE's for most students taught in context of Engineering, Manufacturing, Industrial Technology (EMIT)</p> <p>Include Computer Science/programming concepts as application of math theory</p> <p>Possibly utilize Michigan Virtual online Trig/Pre-Calc for advanced math students</p>	<p>UCSI-ALGEBRA II OR TRIGONOMETRY Algebra II HSCE's for most students taught in context of Engineering, Manufacturing, Industrial Technology (EMIT)</p> <p>Continue Computer Science/programming concepts as application of math theory</p> <p>Possibly utilize Michigan Virtual online Calculus for advanced math students</p>	<p>SENIOR SEMINAR Optional if feasible to extend to 4 or 5 hours <u>Options for students could include:</u> Dual enrollment/post secondary opportunities Internship/co-op Student competitions such as SkillsUSA, FIRST Robotics, or Global Trade Mission</p>
<p>Work-based learning opportunities such as guest speakers, field trips, distance learning</p>	<p>Work-based learning opportunities such as resume writing and mock interviews, job shadowing</p>	<p>Work-based learning opportunities such as cyber mentoring and unpaid work experience</p>	<p>Work-based learning opportunities such as local/global internship</p>

UTICA CENTER FOR SCIENCE AND INDUSTRY (UCSI)
Course Sequence
ENGINEERING TECHNOLOGY

9 th	10 th	11 th	12 th
UCSI DESIGN PRINCIPLES/UCSI TECHNICAL ILLUSTRATION [1 hr] [20 weeks each]	UCSI-ELECTRONICS [1 hr] (basic, digital, analog)	ENGINEERING TECH I [1 hr]	ENGINEERING TECH II [2 hrs] (math embedded) plus senior project
UCSI-ENGLISH 9 English 9 HSCE's with Engineering, Manufacturing, Industrial Technology, (EMIT) focus	UCSI-ENGLISH 10 English 10 HSCE's with EMIT focus	UCSI-ENGLISH 11 English 11 HSCE's with EMIT focus	UCSI-ENGLISH 12 English 12 HSCE's with EMIT focus
UCSI-GEOMETRY Geometry HSCE's for most students taught in context of Engineering, Manufacturing, Industrial Technology (EMIT) Possibly utilize Michigan Virtual online Algebra II for advanced math students	UCSI-ALGEBRA I OR ALGEBRA II Algebra I HSCE's for most students taught in context of Engineering, Manufacturing, Industrial Technology (EMIT) Include Computer Science/programming concepts as application of math theory Possibly utilize Michigan Virtual online Trig/Pre-Calc for advanced math students	UCSI-ALGEBRA II OR TRIGONOMETRY Algebra II HSCE's for most students taught in context of Engineering, Manufacturing, Industrial Technology (EMIT) Continue Computer Science/programming concepts as application of math theory Possibly utilize Michigan Virtual online Calculus for advanced math students	SENIOR SEMINAR Optional if feasible to extend to 4 or 5 hours <u>Options for students could include:</u> Dual enrollment/post secondary opportunities Internship/co-op Portfolio Development Student competitions such as SkillsUSA, MATE International ROV competition, FIRST Robotics, or Global Trade Mission
Work-based learning opportunities such as guest speakers, field trips, distance learning	Work-based learning opportunities such as resume writing and mock interviews, job shadowing	Work-based learning opportunities such as cyber mentoring and unpaid work experience	Work-based learning opportunities such as local/global internship

UTICA CENTER FOR SCIENCE AND INDUSTRY (CSI)

Course Sequence

MULTIMEDIA PRODUCTION

9 th	10 th	11 th	12 th
<p>UCSI DESIGN PRINCIPLES/UCSI TECHNICAL ILLUSTRATION [1 hr] [20 weeks each]</p>	<p>UCSI-DIGITAL ART [1 hr]</p>	<p>UCSI-MULTIMEDIA I [2 hrs]</p>	<p>UCSI-MULTIMEDIA II [2 hrs] (math embedded) plus senior project</p>
<p>UCSI-ENGLISH 9 English 9 HSCE's with Arts & Communication focus</p>	<p>UCSI-ENGLISH 10 English 10 HSCE's with Arts & Communication focus</p>	<p>UCSI-ENGLISH 11 English 11 HSCE's with Arts & Communication focus</p>	<p>UCSI-ENGLISH 12 English 12 HSCE's with Arts & Communication focus</p>
<p>UCSI-GEOMETRY Geometry HSCE's for most students taught in context of Arts & Communication</p> <p>Possibly utilize Michigan Virtual online Algebra II for advanced math students</p>	<p>UCSI-ALGEBRA I OR ALGEBRA II Algebra I HSCE's for most students taught in context of Arts & Communication</p> <p>Possibly utilize Michigan Virtual online Trig/Pre-Calc for advanced math students</p>	<p>UCSI-ALGEBRA II OR TRIGONOMETRY Algebra II HSCE's for most students taught in context of Arts & Communication</p> <p>Possibly utilize Michigan Virtual online Calculus for advanced math students</p>	<p>SENIOR SEMINAR Optional if feasible to extend to 4 or 5 hours <u>Options for students could include:</u> Dual enrollment/post secondary opportunities Internship/co-op Portfolio Development Student competitions such as SkillsUSA, FIRST Robotics, or Global Trade Mission</p>
<p>Work-based learning opportunities such as guest speakers, field trips, distance learning</p>	<p>Work-based learning opportunities such as resume writing and mock interviews, job shadowing</p>	<p>Work-based learning opportunities such as cyber mentoring and unpaid work experience</p>	<p>Work-based learning opportunities such as local/global internship</p>