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

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

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

9 th	10 th	11 th	12th
UCSI DESIGN	UCSI-ELECTRONICS [1 hr]	ENGINEERING TECH I [1 hr]	ENGINEERING TECH II [2 hrs]
PRINCIPLES/UCSI	(basic, digital, analog)		(math embedded)
TECHNICAL ILLUSTRATION			plus senior project
[1 hr]			
[20 weeks each]			
UCSI-ENGLISH 9	UCSI-ENGLISH 10	UCSI-ENGLISH 11	UCSI-ENGLISH 12
English 9 HSCE's with	English 10 HSCE's with EMIT	English 11 HSCE's with EMIT	English 12 HSCE's with EMIT
Engineering, Manufacturing,	focus	focus	focus
Industrial Technology, (EMIT)			
focus			
UCSI-GEOMETRY	UCSI-ALGEBRA I OR	UCSI-ALGEBRA II OR	SENIOR SEMINAR
Geometry HSCE's for most	ALGEBRA II	TRIGONOMETRY	Optional if feasible to extend to 4
students taught in context of	Algebra I HSCE's for most	Algebra II HSCE's for most	or 5 hours
Engineering, Manufacturing,	students taught in context of	students taught in context of	Options for students could include:
Industrial Technology (EMIT)	Engineering, Manufacturing,	Engineering, Manufacturing,	Dual enrollment/post secondary
D 11 41 M. 1. M. 1	Industrial Technology (EMIT)	Industrial Technology (EMIT)	opportunities
Possibly utilize Michigan Virtual			Internship/co-op
online Algebra II for advanced	Include Computer	Continue Computer	Portfolio Development
math students	Science/programming concepts as	Science/programming concepts as	Student competitions such as
	application of math theory	application of math theory	SkillsUSA, MATE International
	Dogaibly satiling Michigan Vintual	Descibly utilize Michigan Vintual	ROV competition, FIRST
	Possibly utilize Michigan Virtual online Trig/Pre-Calc for advanced	Possibly utilize Michigan Virtual online Calculus for advanced math	Robotics, or Global Trade Mission
	math students	students	
	main students	Students	
Work-based learning	Work-based learning	Work-based learning	Work-based learning
opportunities such as	opportunities such as resume	opportunities such as cyber	opportunities such as local/global
guest speakers, field trips,	writing and mock interviews, job	mentoring and unpaid work	internship
distance learning	shadowing	experience	•

UTICA CENTER FOR SCIENCE AND INDUSTRY (CSI)

Course Sequence MULTIMEDIA PRODUCTION

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