

2019

Skills-to-Course Matrix

Engineering and Design

Mountainside High School

Portland Community College

Mar-19

Engineering Technology Cluster

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry focus/are using those skill sets for multiple options in a Program of Study or if you want to use another set of industry validated standards.

[illegible]

[illegible]

2019

Skills-to-Course Matrix

Engineering and Design

Mountainside High School

Portland Community College

Mar-19

Civil & Infrastructure Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry focus are using those skill sets for multiple options in a Program of Study or if you want to use another set of industry validated standards.

[illegible]

2019

Skills-to-Course Matrix

Engineering and Design

Mountainside High School

Portland Community College

Mar-19

Electrical Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry focus are using those skill sets for multiple options in a Program of Study or if you want to use another set of industry validated standards.

			Introduction to Engineering	Engineering & Design 1	Engineering & Design 2	Engineering & Design 3	IB Design Technology SL	Robotics 1	Robotics 2	CAD 1	CAD 2
			A554Q	A560X	A5611, A5612	A5671, A5672	C8901, C8902	A562XA	A563XA	A521XA	A522XA
			21006	21006	21006	21006	21006	21009	21009	21107	21107
			0.25	0.5	1	1	1	0.5	0.5	0.5	0.5
CCTC*	Code Number	KS Statement	N	N	N	Y	Y	N	N	N	N
	ENES01	Understand and apply electrical theory and laws.		X	X	X	X				
	ENES02	Demonstrate knowledge and application of transistors.			X						
	ENES03	Understand and apply circuit concepts and analysis techniques.		X	X	X	X				
	ENES04	Demonstrate knowledge of circuit design and fabrication.		X	X	X	X				
	ENES05	Understand and apply digital concepts and circuitry.		X	X	X	X				
	ENES06	Demonstrate knowledge of power sources and power supplies.								X	X
	ENES07	Demonstrate knowledge of communication systems.									
	ENES08	Understand and perform skills for system integration and amplification.									
	ENES09	Communicate using symbols, measurements, conventions, icons, and graphic images.			X	X	X			X	X

2019

Skills-to-Course Matrix

Engineering and Design

Mountainside High School

Portland Community College

Mar-19

Manufacturing Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry focus/area using those skill sets for multiple options in a Program of Study or if you want to use another set of industry validated standards.

[illegible]

2019

Skills-to-Course Matrix

Engineering and Design

Mountainside High School
Portland Community College
Mar-19

Mechanical Engineering Systems Focus Area

Instructions: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry focus are using those skill sets for multiple options in a Program of Study or if you want to use another set of industry validated standards.

			Introduction to Engineering	Engineering & Design 1	Engineering & Design 2	Engineering & Design 3	IB Design Technology SL	Robotics 1	Robotics 2	CAD 1	CAD 2
Focus Area Knowledge and Skills (CTE standards)			A554Q	A560X	A5611, A5612	A5671, A5672	C8901, C8902	A562XA	A563XA	A521XA	A522XA
			21006	21006	21006	21006	21006	21009	21009	21107	21107
			0.25	0.5	1	1	1	0.5	0.5	0.5	0.5
CCTC*	Code Number	KS Statement	N	N	N	Y	Y	N	N	N	N
	ENMS01	Understand and use principles of machine theory.									
	ENMS02	Demonstrate knowledge of fluid dynamics.		X	X	X	X				
	ENMS03	Demonstrate knowledge of statics and dynamics in mechanical systems.		X	X	X	X				
	ENMS04	Use knowledge of material science to solve problems appropriate to manufacturing engineering.									
	ENMS05	Demonstrate knowledge of thermal dynamics.			X						