Utah System of Higher Education
The Gateway, Salt Lake City, UT 84101
801-646-4784

Control Systems and Robotics

Technical Certificate (Catalog Year: 2027)

Foundational Courses (14 Credits / 420 Clock-Hours)

		Credits	Clock-Hours
TECE 1000	Industrial Networking Basics	1	30
TECE 1050	Vision Systems Basic	1	30
TECE 1100	Programmable Logic Controllers II	3	90
TECE 1150	Human Machine Interface (HMI) Programming	2	60
TECE 1200	Industrial Networking II	2	60
TECE 1250	Servo Motors and Drives	1	30
TECE 1800	Integration Capstone	4	120

Supplemental Courses Varies by Institution

Bridgerland (6 Credits / 180 Clock-Hours)

		Credits	Clock-Hours
TECE 1300	Programmable Logic Controllers III	3	90
TECE 1450	Industrial Robot Programming	2	60
TECE 1620	Robot Vision and Safety	1	30
TECE 2800	Project Based Learning in Controls	1	30

Davis (6 Credits / 180 Clock-Hours)

		Credits	Clock-Hours
TECE 1300	Programmable Logic Controllers III	3	90
TECE 1420	Programmable Logic Controller Platforms	1	30
TECE 1440	Human Machine Interface (HMI) Platforms	1	30
TECE 1460	Robot Platforms	1	30
TECE 1470	Robot Simulation Software	2	60
TECE 1500	FANUC Basic Programming	1	30
TECE 1620	Robot Vision and Safety	1	30
TECE 1700	FANUC Advanced Programming	1	30
TECE 1720	Controls Integration	3	90

Ogden-Weber (34 Credits / 1020 Clock-Hours)

		Credits	Clock-Hours
TEAM 1010	Essential Skills and Safety	3	90
TEAM 1020	Pneumatics	2	60
TEAM 1030	Hydraulics	2	60
TEAM 1040	Industrial Mechanics	3	90
TEAM 1050	Electrical Systems	2	60
TEAM 1060	Motor Controls	3	90
TEAM 2146	Electrical Fluid Power Control Systems	2	60
TEAM 1070	Programmable Logic Controllers	4	120

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TEAM 1080	Applied System Diagnostics	2	60
TEAM 1140	Industrial Robotics	3	90
TEAM 1300	Building Control Panels	3	90
TEAM 1138	Vision Systems	1	30
TEDR 1200	Parametric Solid Modeling	3	90
TEWT 1311	Gas Metal Arc Welding (GMAW) I	2	60
TECE 1700	FANUC Advanced Programming	1	30
TECE 2010	Allen-Bradley Programmable Logic Controllers III	3	90
TECE 2110	Siemens Programmable Logic Controllers II	3	90
TECE 2210	Siemens Programmable Logic Controllers III	3	90
TECE 2150	Mechatronics	3	90
TECE 1400	Instrumentation Process Control	2	60
TECE 1410	Instrumentation Pressure Control	2	60
TECE 1415	Instrumentation Thermal Control	2	60
TECE 1010	Machine Safety Integration	1	30
TECE 1130	Autonomous Mobile Robots	1	30