

# Electrical Systems Technology - Hydro-mechanical Pathway (A35130H) – 67-68 Credit Hours

2018-2019

Fall – 1 <sup>st</sup> Year				
Course Number	Course Name	Lec	Lab	Credit
ELC 112	DC/AC Electricity (Fall Even)	3	6	5
ELC 113	Residential Wiring ★ (Fall Even)	2	6	4
ELN 131	Analog Electronics I	3	3	4
HYD 110	Hydraulics/Pneumatics	2	3	3
<b>Total</b>				<b>16</b>

Fall – 2 <sup>nd</sup> Year				
Course Number	Course Name	Lec	Lab	Credit
CIS 110	Introduction to Computers	2	2	3
ENG 111	Writing and Inquiry	3	0	3
MAC 114	Introduction to Metrology	2	0	2
	Natural Science Or Math Elective			3-4
	Humanities/Fine Arts Elective			3
	Social/Behavioral Science Elective			3
<b>Total</b>				<b>17-18</b>

Major Electives (Select 1 credit hour minimum)				
Course Number	Course Name	Lec	Lab	Credit
ATR 112	Intro to Automation	2	3	3
CTI 120	Network and Security Foundation	2	2	3
DFT 151	CAD I	2	3	3
ELC 213	Instrumentation	3	2	4
ELC 221	Adv PV Sys Design	2	2	3
ELN 132	Analog Electronics II	3	3	4
ELN 133	Digital Electronics	3	3	4
ELN 231	Industrial Controls	2	3	3

- ★ - Designates classes preparing students to sit for electrical contracting limited license
- ★★ - Designates classes preparing students to sit for OSHA basic safety certification tests

Spring – 1 <sup>st</sup> Year				
Course Number	Course Name	Lec	Lab	Credit
ELC 118	National Elec. Code (S) ★	1	2	2
ELC 128	Intro to PLC (S)	2	3	3
HYD 121	Hydraulics/Pneumatics II	1	3	2
HYD 210	Advanced Hydraulics	1	3	2
MAC 132	Blueprint Reading/Mach II (S)	1	2	2
MEC 151	Mechanical Manufacturing Systems (S)	1	3	2
	Communications Elective (S)	3	0	3
	Major Elective (S)			1
<b>Total</b>				<b>17</b>

Spring – 2 <sup>nd</sup> Year				
Course Number	Course Name	Lec	Lab	Credit
ELC 115	Industrial Wiring ★	2	6	4
ELC 117	Motors and Controls	2	6	4
ELC 215	Electrical Maintenance	2	3	3
ELC 220	Photovoltaic Sys Tech	2	3	3
MEC 130	Mechanism	2	2	3
<b>Total</b>				<b>17</b>

Major Electives (Select 1 credit hour minimum)				
Course Number	Course Name	Lec	Lab	Credit
ISC 112	Industrial Safety ★★	2	0	2
MAC 121	Introduction to CNC	2	0	2
MAC 122	CNC Turning	1	3	2
MEC 145	Mfg Materials I	2	3	3
MEC 180	Engineering Materials	2	3	3
WBL 110	World of Work	1	0	1
WBL 111	Work-Based Learning I (and)	0	0	1
WBL 115	Work-Based Learning Seminar I	1	0	1

- (S) – Designates recommended classes for students starting in spring of the first year