

STUDENT EDUCATIONAL PLAN

(Needed for Each Registration, VA, and Financial Aid Approval)

DATE _____ UPDATED _____
Date Initial

_____ _____
Date Initial

Counselor's Initials _____
 Semester of Entry _____

NAME _____ SID# _____ ADVISOR _____ ROOM/EXT _____
(Last) (First) (MI)

The following developmental courses are required as a part of your program and must be completed prior to attempting courses from the same area in the curriculum.

MATH _____ **ENGLISH** _____ **OTHER CONDITIONS:** _____ **MAJOR** _____

You must follow this curriculum outline! Failure to do so may result in loss of VA, Financial Aid, or other benefits.

Mechatronics Engineering (A40350)

EFFECTIVE DATE: Fall 2020

Revised: Spring 2020

___ DMA 010, 020, 030
 ___ DRE 096, ___ DRE 097, ___ DRE 098

OTHER REQUIRED COURSES:

___ ACA-111 College Student Success 1
 or
 ___ ACA-115 College Student Success* 1
 1

MAJOR COURSES:

Required Core Courses

___ ISC 112 Industrial Safety * 2
 ___ CIS 110 Intro to Computers* 3
 ___ ATR 112 Intro to Automation* 3
 ___ ELC 112 DC/AC Electricity* 5
 ___ ELC 213 Instrumentation * 3
 ___ ELC 132 Electrical Drawings* 2
 ___ HYD 110 Hydraulics/Pneumatics I 3
 ___ MEC 130 Mechanisms* 3
 ___ ELC 117 Motors & Controls* 4
 ___ ELC 128 Intro to PLC* 3
 ___ PHY 131 Physics-Mechanics* 4
35

Other Major Courses:

___ ELC 228 PLC Applications 4
 ___ ELN 133 Digital Electronics 4
 ___ ATR 115 Intro to Mechatronics* 4
 ___ ATR 212 Industrial Robots 3
 ___ ATR 280 Robotic Fundamentals 4
 ___ Focused Elective 2-4

21-23

GENERAL EDUCATION COURSES:

___ ENG 111 Expository Writing* 3
 ___ MAT 121 Algebra/Trigonometry* 3
 Or
 ___ MAT 171 Pre-Calculus Algebra 4
 ___ PSY 150 General Psychology 3
 ___ HUM 115 Critical Thinking (Human/Fine Art) 3
 Or
 ___ Hum 110 Technology & Society 3
 ___ ENG 116 Technical Report Writing 3
 Or
 ___ ENG 114 Professional Research & Reporting 3
15-16

TOTAL SEMESTER HOURS: 72-75

Focused Electives from:

___ MNT 160 Industrial Fabrication 2
 ___ WLD 112 Basic Welding Processes 2
 ___ WLD 131 GTAW (Tig) Plate 4

DIPLOMA:

Courses in **Blue** and with * are required for a Diploma in Industrial Systems Technology.

Certificates:

C40350: ___ ELC 132, ___ ELC 128, ___ MEC 130,
 ___ ATR 112, ___ HYD 110, ___ ELC 213

TRANSCRIPT(S) _____ TOTAL TRANSFER CREDITS GRANTED: _____
 _____ TOTAL CREDITS COMPLETED AT RE-ENTRY: _____

Bachelor's Degree: Yes / No Attended Other Post-Secondary Institutions: Yes / No Race: _____ Sex: M / F Residency: In-State / Out-of-State

FINANCIAL AID APPROVAL _____ (Counselor's Signature) VA BENEFITS APPROVAL _____ (Counselor's Signature)

**Mechatronics Engineering Technology
A40350 A.A.S Degree**

Curriculum				
Course Prefix, No.	Title	Class	Lab	Credit
Fall Semester I				
ELC 112	DC/AC Electricity	3	6	5
ATR 115	Intro to Mechatronics	3	3	4
ACA 115	Success & Study Skills	0	2	1
ELN 133	Digital Electronics	3	3	4
HYD 110	Hydraulics/Pneumatics I	2	3	<u>3</u>
				17
Spring Semester-1st Year				
ELC 117	Motors & Controls	2	6	4
MAT 121	Algebra/Trig	2	2	3
OR				
MAT 171	Pre-Cal Algebra	3	2	4
ATR 112	Intro to Automation	2	3	3
MEC 130	Mechanisms	2	3	3
ELC 132	Electrical Drawings	1	3	2
ISC 112	Industrial Safety	2	0	<u>2</u>
				17-18
Summer Session				
CIS 110	Introduction to Computers	2	2	3
ENG 111	Expository Writing	3	0	<u>3</u>
				6
Fall Semester-2nd Year				
ELC 128	Intro to PLC	2	3	3
ELC 213	Instrumentation	3	2	4
ENG 116	Technical Report Writing	3	0	3
OR				
ENG 114	Prof. Research & Reporting	3	0	3
PHY 131	Physics-Mechanics	3	2	4
ATR 212	Industrial Robots	2	3	<u>3</u>
				17
Spring Semester II				
ATR 280	Robotic Fundamentals	3	2	4
ELC 228	PLC Applications	2	6	4
HUM 115	Critical Thinking	3	0	3
OR				
HUM 110	Technology & Society	3	0	3
PSY 150	General Psychology	3	0	3
— —	Focused Elective*	—	—	<u>—</u>
				16-18
*Focused Electives (select one)				
MNT 160	Industrial Fabrication	1	3	2
WLD 112	Basic Welding Processes	1	3	2
WLD 131	GTAW (TIG) Plate	2	6	4

[SEMESTER HOURS REQUIRED TO GRADUATE 73-76]

Specific courses within the above categories may be identified by your advisor or by the Vice President for Instruction and Student Services. Expected program competencies are maintained by the lead instructor for this program, while course competencies are maintained by the respective instructors of specific courses.

NOTE: The above curriculum outline is intended as a guide only. The sequence of course offerings is subject to change at the discretion of the administration.

**Mechatronics Engineering Technology
D40350 Diploma**

Course Prefix, No.	Title	Class	Lab	Credit
Fall Semester I				
ELC 112	DC/AC Electricity	3	6	5
ELC 128	Intro to PLC	2	3	3
ELC 213	Instrumentation	3	2	4
ACA 115	Success & Study Skills	0	2	1
HYD 110	Hydraulics/Pneumatics I	2	3	3
CIS 110	Introduction to Computers	2	2	<u>3</u>
				19
Spring Semester I				
ELC 117	Motors & Controls	2	6	4
MAT 121	Algebra/Trig	2	2	3
OR				
MAT 171	Pre-Cal Algebra	3	2	4
ATR 112	Intro to Automation	2	3	3
MEC 130	Mechanisms	2	3	3
ELC 132	Electrical Drawings	1	3	2
ISC 112	Industrial Safety	2	0	<u>2</u>
				17-18
Summer Session				
ENG 111	Expository Writing	3	0	3
PHY 131	Physics-Mechanics	3	2	<u>4</u>
				7

[SEMESTER HOURS REQUIRED TO GRADUATE 43-44]

Specific courses within the above categories may be identified by your advisor or by the Vice President for Instruction and Student Services. Expected program competencies are maintained by the lead instructor for this program, while course competencies are maintained by the respective instructors of specific courses.

NOTE: The above curriculum outline is intended as a guide only. The sequence of course offerings is subject to change at the discretion of the administration.

**Mechatronics Engineering Technology
C40350 Certificate**

Course Prefix, No.	Title	Class	Lab	Credit
Fall Semester				
ELC 132	Electrical Drawings	1	3	2
MEC 130	Mechanisms	2	3	3
ATR 112	Intro to Automation	2	3	<u>3</u>
				8
Spring Semester				
ELC 213	Instrumentation	3	2	4
ELC 128	Intro to PLC	2	3	3
HYD 110	Hydraulics/Pneumatics I	2	3	<u>3</u>
				10