

# Electro-Mechanical Engineering Technology - Laser Major

## Engineering & Information Technologies

2019-2020 Curriculum

| Course     | Title                                 | Pre-Reqs | Lec | Lab | Credit Hours |
|------------|---------------------------------------|----------|-----|-----|--------------|
| Semester 1 |                                       |          |     |     |              |
| CIT-105    | OSHA 10 General Industry Safety       |          | 1   | 0   | 1            |
| EET-131    | Circuits Analysis 1                   |          | 3   | 2   | 4            |
| EMET-150   | Introduction to Controls and Robotics |          | 1   | 2   | 2            |
| FYE-1XX    | First Year Experience Elective        |          | 1   | 0   | 1            |
| MAT-XXX    | Mathematics Elective 1                |          | 3   | 2   | 4            |
| PSET-110   | Power Systems CAD                     |          | 2   | 3   | 3            |

15

### Semester 2

|          |                         |                   |   |   |   |
|----------|-------------------------|-------------------|---|---|---|
| EET-132  | Circuits Analysis 2     | EET 131, MAT 125  | 3 | 2 | 4 |
| EMET-180 | Process Instrumentation | EET 131, EMET 140 | 2 | 3 | 3 |
| ENG-101  | English Composition 1   |                   | 3 | 0 | 3 |
| MAT-XXX  | Mathematics Elective 2  |                   | 3 | 2 | 4 |

14

### Semester 3

|         |  |  |   |   |   |
|---------|--|--|---|---|---|
| XXX-XXX | Cooperative Education or Transfer Elective 1 |  | 1 | 3 | 2 |
|---------|--|--|---|---|---|

2

### Semester 4

|          |  |                   |   |   |   |
|----------|--|-------------------|---|---|---|
| EMET-240 | PLCs, Motors, Motor Controls, and Kinematics | EET 132           | 2 | 3 | 3 |
| EMET-245 | Laser 1                                      | MAT 121, EMET 150 | 2 | 3 | 3 |
| ENG-10X  | English Composition Elective                 | ENG 101           | 3 | 0 | 3 |
| PHY-XXX  | Physics Elective                             |                   | 3 | 2 | 4 |

13

### Semester 5

|          |   |                    |   |   |   |
|----------|---|--------------------|---|---|---|
| EMET 246 | Laser 2   | EMET 245           | 3 | 3 | 4 |
| EMET-275 | Electric Drive Mechanisms                         | EMET 240           | 3 | 3 | 4 |
| EMET-270 | Robotics and Servomechanisms                      | EET 132            | 3 | 3 | 4 |
| MET-150  | Statics and Strength of Materials for MET         | MAT 121 or MAT 125 | 2 | 3 | 3 |
| XXX-XXX  | Arts/Humanities or Social/Behavioral Sci Elective | ENG 101            | 3 | 0 | 3 |

18

### Semester 6

|         |  |  |   |    |   |
|---------|--|--|---|----|---|
| XXX-XXX | Cooperative Education or Transfer Elective 2 |  | 1 | 40 | 2 |
|---------|--|--|---|----|---|

2

Total **64**

Arts/Humanities or Social/Behavioral Science Elective: Any ECO, GEO, HST, LBR, LIT, PHI

Cooperative Education or Transfer Elective: EMET 291, EMET 292, EET 121, ESET 251, MET 140, CIT 250. Program

Chair approval is required for students planning to take a Transfer Elective course rather than participate in cooperative education

English Composition Elective: ENG 102, ENG 104

First Year Experience Elective: FYE 100, FYE 105, FYE 110

Math Electives: Take one of the following series: MAT 125 and MAT 126; or MAT 251 and MAT 252

Physics Elective: PHY 151, PHY 201