

# Land Surveying

## Engineering & Information Technologies

### 2021-2022 Curriculum

#### FIRST YEAR

| Course     | Title                                            | Pre-Reqs | Lec | Lab | Credit Hours |
|------------|--------------------------------------------------|----------|-----|-----|--------------|
| Semester 1 |                                                  |          |     |     |              |
| CET-115    | Architectural Drafting and Computer Aided Design |          | 2   | 4   | 4            |
| FYE-1XX    | First Year Experience Elective                   |          | 1   | 0   | 1            |
| MAT-151    | College Algebra                                  |          | 4   | 0   | 4            |
| SUR-100    | Introduction to Surveying                        |          | 2   | 2   | 3            |
| SUR-105    | Surveying Fundamentals                           |          | 2   | 3   | 3            |

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#### Semester 2

|         |                                       |         |   |   |   |
|---------|---------------------------------------|---------|---|---|---|
| MAT-152 | Trigonometry                          | MAT 151 | 4 | 0 | 4 |
| SUR-110 | Surveying for Construction Layout     | SUR 105 | 2 | 3 | 3 |
| SUR-120 | CAD, Civil 3D, and Surveying Software | CET 115 | 2 | 4 | 4 |
| SUR-130 | Surveying History                     |         | 4 | 0 | 4 |

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#### Semester 3

|         |                                  |  |   |    |   |
|---------|----------------------------------|--|---|----|---|
| ENG-101 | English Composition 1            |  | 3 | 0  | 3 |
| SUR-X9X | Cooperative Education Elective 1 |  | 1 | 40 | 2 |

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#### SECOND YEAR

#### Semester 1

|         |                                           |                    |   |   |   |
|---------|-------------------------------------------|--------------------|---|---|---|
| PHY-151 | Physics 1: Algebra and Trigonometry-Based | PHY 150 or MAT 125 | 3 | 3 | 4 |
| SUR-200 | Route Location and Design                 | SUR 110            | 3 | 2 | 4 |
| SUR-201 | Elements of Land Surveying 1              | SUR 110            | 3 | 2 | 4 |
| SUR-215 | Land Information Modeling                 | SUR 110            | 2 | 3 | 3 |
| SUR-221 | Dendrology 1                              |                    | 2 | 0 | 2 |

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#### Semester 2

|          |                                  |         |   |   |   |
|----------|----------------------------------|---------|---|---|---|
| COMM-110 | Public Speaking                  | ENG 101 | 3 | 0 | 3 |
| ECO-110  | Principles of Macroeconomic      |         | 3 | 0 | 3 |
| ENG-10X  | English Composition Elective     | ENG 101 | 3 | 0 | 3 |
| SUR-202  | Elements of Boundary Surveying 2 | SUR 201 | 3 | 3 | 4 |
| SUR-222  | Dendrology 2                     | SUR 221 | 0 | 2 | 1 |

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#### Semester 3

|         |                                  |         |   |    |   |
|---------|----------------------------------|---------|---|----|---|
| SUR-230 | Control Surveying                | SUR 200 | 3 | 3  | 4 |
| SUR-X9X | Cooperative Education Elective 2 |         | 1 | 40 | 2 |

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#### First & Second Year Electives

English Composition Elective: ENG 102, ENG 104, ENG 105

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

Cooperative Education Electives 1 & 2: (4 credit hours required) SUR 191, SUR 192, SUR 193, SUR 194, SUR 291, SUR

# Land Surveying Continued

2021-2022 Curriculum

## THIRD YEAR

| Course     | Title                                        | Pre-Reqs | Lec | Lab | Credit Hours |
|------------|----------------------------------------------|----------|-----|-----|--------------|
| Semester 1 |                                              |          |     |     |              |
| MAT-XXX    | Mathematics Elective                         | SUR 200  | 2   | 2   | 3            |
| SUR-300    | Advanced Surveying Calculations & Statistics |          | 4   | 0   | 4            |
| XXX-XXX    | Social/Behavioral Science Elective           |          | 3   | 0   | 3            |
| XXX-XXX    | Arts/Humanities Elective                     |          | 3   | 0   | 3            |
|            |                                              |          |     |     | 13           |

### Semester 2

|         |                                         |         |   |   |    |
|---------|-----------------------------------------|---------|---|---|----|
| PHY-152 | Physics 2: Algebra & Trigonometry-Based | PHY 151 | 3 | 2 | 4  |
| SUR-305 | Geospatial Surveying                    | SUR 230 | 4 | 0 | 4  |
| SUR-310 | Surveying Laws & Ethics                 | SUR 202 | 4 | 0 | 4  |
| XXX-XXX | Arts/Humanities Elective                |         | 3 | 0 | 3  |
|         |                                         |         |   |   | 15 |

### Semester 3

|         |                                  |  |   |    |   |
|---------|----------------------------------|--|---|----|---|
| SUR-X9X | Cooperative Education Elective 3 |  | 1 | 40 | 2 |
|         |                                  |  |   |    | 2 |

## FOURTH YEAR

### Semester 1

|         |                                 |                    |   |   |           |
|---------|---------------------------------|--------------------|---|---|-----------|
| EVS-120 | Environmental Geology           | ACC 101<br>ECO 105 | 3 | 2 | <b>4</b>  |
| MGT-120 | Entrepreneurship                |                    | 3 | 0 | <b>3</b>  |
| MKT-101 | Principles of Marketing         |                    | 3 | 0 | <b>3</b>  |
| SUR-420 | Photogrammetry & Remote Sensing |                    | 2 | 3 | <b>3</b>  |
|         |                                 |                    |   |   | <b>13</b> |

### Semester 2

|         |                                       |                  |   |   |    |
|---------|---------------------------------------|------------------|---|---|----|
| XXX-XXX | Science Elective                      |                  | 3 | 2 | 4  |
| SUR-465 | Subdivision Design & Drainage Control | SUR 120, SUR 200 | 3 | 3 | 4  |
| SUR-490 | Land Surveying Capstone               | SUR 200, SUR 310 | 1 | 6 | 3  |
|         |                                       |                  |   |   | 11 |

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### Third & Fourth Year Electives

Arts/Humanities Elective: (Select 2 courses) ART 110, ART 111, ART 112, COMM 130, LIT 200, LIT 210, LIT 220, LIT 230, LIT 240, LIT 251, LIT 252, LIT 255, LIT 261, LIT 262, LIT 265, LIT 270, LIT 280, LIT 285, MUS 101, MUS 102, MUS 105, MUS 120, PHI 105, PHI 110, REL 105, THE 105, THE 110

Cooperative Education Elective 3: (2 credit hours required) SUR 391, SUR 392, SUR 491

Social/Behavioral Science Elective: ECO 105, GEO 105, GEO 110, GEO 115, HST 101, HST 102, HST 111, HST 112, HST 121, HST 122, HST 130, LBR 105, POL 101, PSY 110, PSY 200, PSY 205, PSY 210, PSY 215, PSY 220, PSY 225, SOC 105, SOC 115, SOC 130, SOC 140

Science Elective: BIO 131, CHE 121 & CHE 131, PSC 105