## My Degree Map

**College of Arts and Sciences Approved Academic Plan**

**Surveying and Geomatics Sciences Program**

**Program Year 2020-21**

### 1st Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Hours</th>
<th>Spring Semester</th>
<th>Hours</th>
<th>Summer Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TROY 1101</td>
<td>1</td>
<td>IS 2241</td>
<td>3</td>
<td>PHY 2252/LAB</td>
<td>3/1</td>
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<tr>
<td>ENG 1101/03</td>
<td>3</td>
<td>MTH 2230</td>
<td>3</td>
<td>ART 2201</td>
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<tr>
<td>MTH 1125</td>
<td>4</td>
<td>MTH 2210</td>
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<tr>
<td>AREA IV SS COURSE</td>
<td>3</td>
<td>ENG 1102/04</td>
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<tr>
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<td><strong>Total</strong></td>
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### 2nd Year

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<th>Hours</th>
<th>Spring Semester</th>
<th>Hours</th>
<th>Summer Semester</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GEM 2220/L220</td>
<td>3/1</td>
<td>GEM 3330/L330</td>
<td>3/1</td>
<td>GEM 3395 CO-OP 1 DR (IF GEM 4499 WILL NOT BE TAKEN 4TH YEAR)</td>
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<tr>
<td>GIS 3390</td>
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<td>PHY 2253/LAB</td>
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<td>GEM 4408</td>
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<tr>
<td>FREE ELEC</td>
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<td>CS 2250</td>
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### 3rd Year

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<th>Hours</th>
<th>Spring Semester</th>
<th>Hours</th>
<th>Summer Semester</th>
<th>Hours</th>
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<tbody>
<tr>
<td>GEM 3379</td>
<td>3</td>
<td>GEM 4410</td>
<td>3</td>
<td>GEM 4496 CO-OP 1 DR (IF GEM 4499 WILL NOT BE TAKEN 4TH YEAR)</td>
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<tr>
<td>GEM 3309/L309</td>
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<td>GEM 4405/L405</td>
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<tr>
<td>AREA II FINE ARTS COURSE</td>
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<td>AREA II LIT COURSE</td>
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<td>AREA II HUM/FA COURSE (COM 2241 DR)</td>
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<td>FREE ELEC</td>
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### 4th Year

<table>
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<tr>
<th>Fall Semester</th>
<th>Hours</th>
<th>Spring Semester</th>
<th>Hours</th>
<th>Summer</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEM 4409/L409</td>
<td>3/1</td>
<td>GEM 4407/L407</td>
<td>3/1</td>
<td>SELECT COURSES THAT HAVE NOT BEEN COMPLETED</td>
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<tr>
<td>GEM 3366</td>
<td>3</td>
<td>GEM 4499 (IF CO-OPS TOTALING 2 CREDIT HOURS NOT TAKEN)</td>
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<tr>
<td>AREA IV SS COURSE</td>
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<td>GEM 4490</td>
<td>1</td>
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<tr>
<td>FREE ELEC</td>
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<td>AREA IV SS COURSE</td>
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<tr>
<td>FREE ELEC</td>
<td>3</td>
<td>AREA IV HIS COURSE</td>
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<td></td>
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<td><strong>Total</strong></td>
<td><strong>16</strong></td>
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**File Your Intent to Graduate**

**Minimum Hours Required for Degree**: 120
COLLEGE OF ARTS AND SCIENCES APPROVED ACADEMIC PLAN
SURVEYING AND GEOMATICS SCIENCES PROGRAM
PROGRAM YEAR 2020-21

COMPLETE ALL REQUIREMENTS (55 HOURS)

DR DENOTES A DEPARTMENTAL RECOMMENDED COURSE

AREA I

MINIMUM GRADE OF "C" REQUIRED

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 1101</td>
<td>COMP AND MODERN ENGLISH I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 1102</td>
<td>COMP AND MODERN ENGLISH II</td>
<td>3</td>
</tr>
</tbody>
</table>

AREA II

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAKE ANY 1000-2000 LEVEL COURSE IN LITERATURE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAKE ART 2201 INTRODUCTORY DRAWING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAKE ANY 1000-2000 LEVEL COURSE WITH AN EXPANDED HISTORICAL AND CULTURAL SCOPE IN FINE ARTS, INCLUDING THE DISCIPLINES OF ART, MUSIC, THEATRE, FILM, OR OTHER FINE ARTS AREA.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAKE ONE 1000-2000 LEVEL COURSE WITH AN EXPANDED HISTORICAL AND CULTURAL SCOPE IN THE HUMANITIES/FINE ARTS DISCIPLINES, INCLUDING ENGLISH, FOREIGN LANGUAGES, RELIGION, PHILOSOPHY, CLASSICS, THEATRE, MUSIC, DANCE, COMMUNICATION, SIGN LANGUAGE, INTERDISCIPLINARY STUDIES, OR OTHER HUMANITIES/FINE ARTS AREAS.</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: A SEQUENCE IN LITERATURE OR HISTORY IS REQUIRED. WHEN SELECTING COURSEWORK IN AREAS II OR IV, PLEASE CONSIDER THIS REQUIREMENT.

AREA III

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 1125</td>
<td>CALCULUS I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MINIMUM GRADE OF &quot;C&quot; REQUIRED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TAKE A PHYSICS COURSE/LAB SEQUENCE:</td>
<td></td>
</tr>
<tr>
<td>PHY 2252/L252</td>
<td>GENERAL PHYSICS I &amp; PHY 2253/L253 GENERAL PHYSICS II</td>
<td>8</td>
</tr>
<tr>
<td>OR</td>
<td>PHY 2262/L262 PHYSICS I WITH CALCULUS &amp; PHY 2263/L263 PHYSICS II WITH CALCULUS</td>
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</table>

AREA IV

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TAKE ANY 1000-2000 LEVEL COURSE WITH A PRIMARY FOCUS IN HISTORY.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAKE ANY THREE 1000-2000 LEVEL COURSES FROM THE FOLLOWING SOCIAL SCIENCE DISCIPLINES: ANTHROPOLOGY, BUSINESS, CRIMINAL JUSTICE, ECONOMICS, GEOGRAPHY, HISTORY, HUMAN SERVICES, LEADERSHIP, INTERDISCIPLINARY STUDIES, NURSING, POLITICAL SCIENCE, PSYCHOLOGY, RELIGION, SOCIAL WORK, SOCIOLOGY, OR OTHER SOCIAL SCIENCE AREAS.</td>
<td>9</td>
</tr>
</tbody>
</table>

NOTE: A SEQUENCE IN LITERATURE OR HISTORY IS REQUIRED. WHEN SELECTING COURSEWORK IN AREAS II OR IV, PLEASE CONSIDER THIS REQUIREMENT.

AREA V

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TROY 1101</td>
<td>THE UNIVERSITY EXPERIENCE</td>
<td>1</td>
</tr>
<tr>
<td>IS 2241</td>
<td>COMPUTER CONCEPTS AND APPLICATIONS</td>
<td>3</td>
</tr>
<tr>
<td>CS 2250</td>
<td>COMPUTER SCIENCE I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 2210</td>
<td>INTRODUCTORY STATISTICS</td>
<td>3</td>
</tr>
<tr>
<td>MTH 2230</td>
<td>APPLIED LINEAR ALGEBRA</td>
<td>3</td>
</tr>
</tbody>
</table>

Every reasonable attempt to ensure accuracy has been made. Some courses (such as developmental or pre-requisite courses) are not reflected in this degree map. Completion of degree requirements is based on the specific catalog year for each student. A minimum of 120 hours is required for all baccalaureate degree programs. At least 25% of the credit hours required for the degree must be completed in residency with Troy University. At least 12 semester hours of residency must be completed in each major field(s) of study. A minimum GPA of 2.0 overall and in the major is required to graduate. NOTE: Please consult the College of Arts and Sciences or current catalog for other requirements not covered in this document. NOTES: A sequence in literature or history is required. Please consider this requirement when selecting coursework in areas II or IV.
### SURVEYING AND GEOMATICS SCIENCE PROGRAM (53 HOURS)

**2.0 GPA REQUIRED**

**TAKE THE FOLLOWING COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEM 1100</td>
<td>COMPUTER-AIDED DRAFTING I</td>
<td>2 HOURS</td>
</tr>
<tr>
<td>GEM 1101</td>
<td>COMPUTER-AIDED DRAFTING II</td>
<td>2 HOURS</td>
</tr>
<tr>
<td>GEM 2220/L220</td>
<td>BASICS OF SURVEYING/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 3309/L309</td>
<td>LAND SURVEY PRINCIPLES/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 3310/L310</td>
<td>LAND SURVEY PRACTICE/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 3330/L330</td>
<td>ADVANCED MEASUREMENT ANALYSIS/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 3366</td>
<td>PHOTOGRAMMETRY &amp; REMOTE SENSING</td>
<td>3 HOURS</td>
</tr>
<tr>
<td>GEM 3379</td>
<td>INTRODUCTION TO LEAST SQUARES ADJUSTMENT</td>
<td>3 HOURS</td>
</tr>
<tr>
<td>GIS 3390</td>
<td>FUNDAMENTALS OF GEOGRAPHIC INFORMATION AND ANALYSIS</td>
<td>3 HOURS</td>
</tr>
<tr>
<td>GIS 3391</td>
<td>APPLICATION OF GIS</td>
<td>3 HOURS</td>
</tr>
<tr>
<td>GEM 4405/L405</td>
<td>ROUTE &amp; CONSTRUCTION SURVEYING/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 4407/L407</td>
<td>LAND DEVELOPMENT/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 4408</td>
<td>GEODESY &amp; GEODETICS</td>
<td>3 HOURS</td>
</tr>
<tr>
<td>GEM 4409/L409</td>
<td>HYDROLOGY/LAB</td>
<td>3/1 HOURS</td>
</tr>
<tr>
<td>GEM 4410</td>
<td>INTRODUCTION GLOBAL POSITIONS</td>
<td>3 HOURS</td>
</tr>
<tr>
<td>GEM 4490</td>
<td>GEOMATICS CAPSTONE</td>
<td>1 HOURS</td>
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**TAKE AN ADDITIONAL 2 HOURS FROM THE FOLLOWING:**

- GEM 4499 (2), OR GEM 3395 (1) AND GEM 4496 (1) 2 HOURS

### FREE ELECTIVES REQUIREMENT (12 HOURS)

**TAKE 12 SEMESTER HOURS OF FREE ELECTIVE CREDIT.** 12 HOURS