

Civil Engineering (Transportation Track) Four Year Academic Plan

Name: _____

UID: _____

| Year 1 | Fall | | |
|---|---------------|-----------|-------|
| Gateway requirements include: ENGL 101, CHEM 135, MATH 141, PHYS 161 and an approved Distributive Studies course. (Directly admitted freshman must successfully complete these courses and ENES 100 by 45 UM credits.) | Course | Credit | Grade |
| | ENCE 100 | 1 | |
| | ENES 102 | 3 | |
| | CHEM 135 | 3 | |
| | MATH 140 (AR) | 4 | |
| | ENGL 101 (AW) | 3 | |
| | Total | 14 | |

| Spring | | |
|------------------------------|-----------|-------|
| Course | Credit | Grade |
| ENES100 (SP) | 3 | |
| MATH 141 | 4 | |
| PHYS 161 (NS) | 3 | |
| Humanities (HU)* | 3 | |
| Hist & Social Sciences (HS)* | 3 | |
| Total | 16 | |

| Year 2 | Fall | | |
|--------|----------------------------|-----------|-------|
| | Course | Credit | Grade |
| | ENCE 200 | 3 | |
| | ENES 220 | 3 | |
| | MATH 241 | 4 | |
| | PHYS 260 and PHYS 261 (NL) | 3 & 1 | |
| | Total | 14 | |

| Spring | | |
|----------------|-----------|-------|
| Course | Credit | Grade |
| ENCE 201 | 3 | |
| ENCE 215 | 3 | |
| ENCE 305 | 3 | |
| MATH 246 | 3 | |
| ORAL COMM (OC) | 3 | |
| Total | 15 | |

| Year 3 | Fall | | |
|--|---------------------|-----------------|-------|
| Second benchmark requirements must be completed one year after students are reviewed for the gateway requirements and include: All required 100 and 200 level MATH and PHYS courses, ENES 100, ENES 102, ENES 220, ENES 100 and ENCE 200. | Course | Credit | Grade |
| | ENCE 300 | 3 | |
| | ENCE 302 | 3 | |
| | ENCE 360 | 3 | |
| | ENCE 370 | 3 | |
| | Science Requirement | 3 or 4 | |
| | Total | 15 or 16 | |

| Spring | | |
|-----------------------|-----------|-------|
| Course | Credit | Grade |
| ENCE 320 | 3 | |
| ENCE 472 | 3 | |
| ENGL 393 (PW) | 3 | |
| ENCE Breadth Elective | 3 | |
| Humanities (HU)* | 3 | |
| Total | 15 | |

| Year 3 | Fall | | |
|--|-------------------------------|-----------|-------|
| Third benchmark requirements must be completed one year after students are reviewed for the second benchmark and include: ENGL 393, ENCE 201, ENCE 302, ENCE 305, ENCE 320 and ENCE 360. | Course | Credit | Grade |
| | ENCE 423 | 3 | |
| | ENCE 470 | 3 | |
| | ENCE Breadth Elective | 3 | |
| | ENCE Elective (See advisor) | 3 | |
| | Scholarship in Practice (SP)* | 3 | |
| | Total | 15 | |

| Spring | | |
|------------------------------|-----------|-------|
| Course | Credit | Grade |
| ENCE 402 | 3 | |
| ENCE 422 | 3 | |
| ENCE 466 | 3 | |
| ENCE Elective (See advisor) | 3 | |
| Hist & Social Sciences (HS)* | 3 | |
| Total | 15 | |

*All students must complete two Distributive Studies courses that are approved for I-series courses. The Understanding Plural Societies (UP) and Cultural Competence (CC) courses may also fulfill Distributive Studies categories.

CIVIL ENGINEERING (TRANSPORTATION TRACK)

NAME: _____

UID: _____

General Education Requirements Fundamental Studies

| Requirements | Course | Credits | Grade |
|---------------------------|----------|---------|-------|
| Academic Writing (AW) | ENGL101 | 3 | |
| Professional Writing (PW) | ENGL 393 | 3 | |
| Oral Comm. (OC) | | 3 | |
| Math (MA) | ----- | 0 | |
| Analytic Reasoning (AR) | MATH 140 | 0 | |

Distributive Studies

| Requirements | Course | Credits | Grade |
|--|--------------|---------|-------|
| Natural Science Lab (NL) | PHYS 260&261 | 0 | |
| Natural Sciences (NS) | PHYS 161 | 0 | |
| History/Social Sciences (HS) | | 3 | |
| History/Social Sciences (HS) | | 3 | |
| Humanities (HU) | | 3 | |
| Humanities (HU) | | 3 | |
| Scholarship in Practice (SP) | ENES100 | 0 | |
| Scholarship in Practice (SP) non major | | 3 | |

I-Series Normally double counted with Distributive Studies

| Requirements | Course | Credits | Grade |
|---------------|--------|---------|-------|
| I-Series (IS) | | | |
| I-Series (IS) | | | |

Diversity (overlap permitted with Distributive Studies and/or I-series)

| Requirements | Course | Credits | Grade |
|---|--------|---------|-------|
| Understanding Plural Societies (UP) | | | |
| Understanding Plural Societies (UP) or Cultural Competency (CC) | | | |

Basic Sciences

| Requirements- <i>The cumulative average of these courses must be a 2.0</i> | Credits | Grade |
|--|---------|-------|
| CHEM 135 - Chem for Eng | 3 | |
| PHYS 161 - General Physics I | 3 | |
| PHYS 260 and PHYS 261 - Gen Physics II & Lab | 3 & 1 | |
| MATH 140 - Calculus I | 4 | |
| MATH 141- Calculus II | 4 | |
| MATH 241 - Calculus III | 4 | |
| MATH 246 - Differential Equations | 3 | |
| Science Requirement (BSCI 106, ENSP 101 or GEOL 100) | 3 or 4 | |

Engineering Sciences

| Requirements- <i>The cumulative average of these courses must be a 2.0</i> | Credits | Grade |
|--|---------|-------|
| ENES 100 - Intro to Eng Design | 3 | |
| ENES 102 - Mechanics I | 3 | |
| ENES 220 - Mechanics II | 3 | |

Major Requirements

The cumulative average of these courses must be a 2.0

| Requirements | Credits | Grade |
|--|---------|-------|
| ENCE 100 - Intro to Civil Eng | 1 | |
| ENCE 200 - Civil Eng Computation | 3 | |
| ENCE 201 - Eng Info Processing | 3 | |
| ENCE 215 - Eng for Sustainability | 3 | |
| ENCE 300 - Fund of Eng Materials | 3 | |
| ENCE 302 - Probability & Stat for CEE | 3 | |
| ENCE 305 - Fund of Eng Fluids | 3 | |
| ENCE 320 - Eng Project Management | 3 | |
| ENCE 360 - Analysis of Civil Eng Systems | 3 | |
| ENCE 370 - Intro to Transpt Eng & Planning | 3 | |
| ENCE 402 - Simulation & Design of Experiments | 3 | |
| ENCE 422 - Proj Cost Accounting & Economics | 3 | |
| ENCE 423 - Proj Planning, Scheduling & Control | 3 | |
| ENCE 466 - Design of Civil Eng Systems | 3 | |
| ENCE 470 - Highway Engineering | 3 | |
| ENCE 472 - Transportation Eng | 3 | |
| ENCE Breadth Elective* | 3 | |
| ENCE Breadth Elective* | 3 | |
| ENCE Elective* | 3 | |
| ENCE Elective* | 3 | |
| ENGL 393 - Technical Writing | 3 | |

Gateway requirements

| Requirements | Credits | Grade |
|--|---------|-------|
| ENGL 101 | 3 | |
| CHEM 135, 271 or 113 | 3 | |
| MATH 141 | 4 | |
| PHYS 161 | 3 | |
| An approved Distributive Studies course | 3 | |
| ENES 100 (required only for Direct Admits) | 3 | |

Benchmark 2 requirements

| | | |
|----------------------------|----|--|
| MATH 140, 141, 241 and 246 | 15 | |
| PHYS 161, 260 and 261 | 7 | |
| ENES 100, 102 and 220 | 9 | |
| ENCE 100 and 200 | 2 | |

Benchmark 3 requirements

| | | |
|---------------------------------|----|--|
| ENGL 393 | 3 | |
| ENCE 201, 302, 305, 320 and 360 | 15 | |

Requirements for Graduation:

- At least 30 credits must be earned at UMD
- 15 of the final 30 credits must be earned at the 300-400 level
- 12 upper level major credits must be earned at UMD

Students must earn a minimum of 120 credits for the degree.