

NAME: \_\_\_\_\_

# CIVIL ENGINEERING

UID: \_\_\_\_\_ \_\_ A.A. \_\_ A.S. \_\_ Post-Bac

| GENERAL EDUCATION REQUIREMENTS                                    |               |  |       |
|-------------------------------------------------------------------|---------------|--|-------|
| <b>Fundamental Studies</b>                                        |               |  |       |
| Academic Writing (AW)                                             | ENGL 101      |  | 3     |
| Professional Writing (PW)                                         | ENGL 39X      |  | 3     |
| Oral Communication (OC)                                           |               |  | 3     |
| Mathmatics (MA)                                                   | MATH140       |  | 4     |
| Analytic Reasoning (AR)                                           | MATH140       |  | 0     |
| <b>Distributive Studies</b>                                       |               |  |       |
| History/Social Sciences (HS*)                                     |               |  | 3     |
| History/Social Sciences (HS*)                                     |               |  | 3     |
| Humanities (HU*)                                                  |               |  | 3     |
| Humanities (HU*)                                                  | ENES/ENEE 200 |  | 3     |
| Natural Sciences No Lab (NS)                                      | PHYS 161      |  | 3     |
| Natural Sciences w/Lab (NL)                                       | PHYS 260/261  |  | 4     |
| Scholarship in Practice (SP*) in major                            | ENES 100      |  | 3     |
| Scholarship in Practice (SP*) out of major                        |               |  | 3     |
| <b>Big Question Courses</b>                                       |               |  |       |
| Big Question (SCIS*)                                              | ENES/ENEE 200 |  | 0     |
| Big Question (SCIS*)                                              |               |  | 0/3   |
| <b>Diversity</b>                                                  |               |  |       |
| Understanding Plural Societies (UP*)                              |               |  | 3     |
| Understanding Plural Societies (UP*) OR Cultural Competency (CC*) |               |  | 0/3   |
| MAJOR REQUIREMENTS                                                |               |  |       |
| <b>Basic Sciences</b>                                             |               |  |       |
| CHEM 135-Chem Engr OR 131 & 134 -Fund & Prin                      |               |  | 3/3&1 |
| PHYS 161 - General Physics I (NS)                                 |               |  | 0     |
| PHYS 260 and PHYS 261 - Gen Physics II & Lab (NL)                 |               |  | 0     |
| MATH 140 - Calculus I (MA/AR)                                     |               |  | 0     |
| MATH 141 - Calculus II                                            |               |  | 4     |
| MATH 241 - Calculus III                                           |               |  | 4     |
| MATH 246 - Differential Equations                                 |               |  | 3     |
| BSCI 160 or ENSP 101 or GEOL 100                                  |               |  | 3     |
| <b>Engineering Sciences</b>                                       |               |  |       |
| ENES 100 - Intro to Eng Design (SP)                               |               |  | 0     |
| ENES 102 - Mechanics I                                            |               |  | 3     |
| ENES 220 - Mechanics II                                           |               |  | 3     |
| <b>Major Requirements</b>                                         |               |  |       |
| 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 360 - Analysis of Civil Eng Systems                          |               |  | 3     |
| ENCE465 - C&Env Eng Design I                                      |               |  | 1     |
| ENCE467 - C&Env Eng Design II                                     |               |  | 2     |
| ENES 200 or ENEE200 - Tech & Consequence (HU/I-Series)            |               |  | 0     |

| MAJOR REQUIREMENTS                                                                                                                                        |  |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|
| <b>Environmental &amp; Water Resources Track</b>                                                                                                          |  |   |
| ENCE 205 - Biology for Civil & Environ Eng                                                                                                                |  | 3 |
| ENCE 310 - Intro to Environ Eng                                                                                                                           |  | 3 |
| ENCE 411 - Environ Eng Science                                                                                                                            |  | 3 |
| ENCE 412 - Environ Eng Unit Operation                                                                                                                     |  | 3 |
| ENCE 422 - Proj Cost Acct. & Econ                                                                                                                         |  | 3 |
| ENCE 431 - Hydrologic Eng                                                                                                                                 |  | 3 |
| ENCE 432 - Ground Water Hydrology                                                                                                                         |  | 3 |
| ENCE Breadth Elective**                                                                                                                                   |  | 3 |
| ENCE Breadth Elective**                                                                                                                                   |  | 3 |
| ENCE Elective**                                                                                                                                           |  | 3 |
| Tech Elective**                                                                                                                                           |  | 3 |
| <b>Geotechnical/Structural Engineering Track</b>                                                                                                          |  |   |
| ENES 221 - Dynamics                                                                                                                                       |  | 3 |
| ENCE 320 - Eng Project Management or ENCE325                                                                                                              |  | 3 |
| ENCE 340 - Fund of Geotechnical Engr                                                                                                                      |  | 3 |
| ENCE 353 - Intro to Structural Analysis                                                                                                                   |  | 3 |
| ENCE 441 - Foundation Design                                                                                                                              |  | 3 |
| ENCE 444 - Exp Methods Geotech & Struct. Eng                                                                                                              |  | 3 |
| ENCE 454 - Design Concrete Structures                                                                                                                     |  | 3 |
| ENCE Breadth Elective**                                                                                                                                   |  | 3 |
| ENCE Breadth Elective**                                                                                                                                   |  | 3 |
| ENCE Elective**                                                                                                                                           |  | 3 |
| Tech Elective**                                                                                                                                           |  | 3 |
| <b>Transportation/Project Management Track</b>                                                                                                            |  |   |
| ENCE 320 - Eng Project Management or ENCE325                                                                                                              |  | 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 470 - Highway Engineering                                                                                                                            |  | 3 |
| ENCE 472 - Transportation Eng                                                                                                                             |  | 3 |
| ENCE Breadth Elective**                                                                                                                                   |  | 3 |
| ENCE Breadth Elective**                                                                                                                                   |  | 3 |
| ENCE Elective**                                                                                                                                           |  | 3 |
| Tech Elective**                                                                                                                                           |  | 3 |
| <b>Requirements for Graduation:</b>                                                                                                                       |  |   |
| <input type="checkbox"/> Final 30 credits must be earned at UMD                                                                                           |  |   |
| <input type="checkbox"/> 15 of the final 30 credits must be earned at the 300-400 level                                                                   |  |   |
| <input type="checkbox"/> 12 upper level major credits must be earned at UMD                                                                               |  |   |
| <input type="checkbox"/> A minimum 2.00 cumulative UM GPA, and satisfactory completion of all degree requirements, is required for graduation             |  |   |
| <input type="checkbox"/> Students must have a 2.0 minimum GPA for all degree requirements, minor requirements, and undergraduate certificate requirements |  |   |
| <input type="checkbox"/> A minimum of 120 credits is required to earn the degree                                                                          |  |   |

\* May satisfy more than one requirement. See [www.gened.umd.edu](http://www.gened.umd.edu)\*\* See Civil Engineering Advisor for appropriate electives: [www.civil.umd.edu](http://www.civil.umd.edu)