

**GEORGE MASON UNIVERSITY**  
**VOLGENAU SCHOOL OF INFORMATION TECHNOLOGY AND ENGINEERING**  
**B.S. DEGREE IN CIVIL AND INFRASTRUCTURE ENGINEERING**  
**(1300 The Engineering Building, 703-993-1675)**  
<http://www.civil.gmu.edu/programs/undergraduate.html>  
**2011-2012 CATALOG**

|  | <u>Department(s) &amp; Course #(s)</u> | <u>Completed/<br/>Grade(s)</u> | <u>Needed</u> |
|--|--|--------------------------------|---------------|
| <b><u>GENERAL EDUCATION REQUIREMENTS (21)</u></b>  |  |                                |               |
| a. Written Communication: ENGH 101 (100), ENGH 302 (C or better) (3,3)                             |  | ___ ___                        | ___ ___       |
| b. Oral Communication: COMM 100 (3)  |  | ___                            | ___           |
| c. Quantitative Reasoning (satisfied by completion of mathematics and basic sciences requirements) |  | ___                            | ___           |
| d. Literature (3)  | _____                                  | _____                          | _____         |
| e. Arts (3)*   | _____                                  | _____                          | _____         |
| f. Western Civilization (HIST 100, 125, or acceptable transfer course)(3)*                         | _____                                  | _____                          | _____         |
| g. ECON 103 (3)  |  | ___                            | ___           |
| h. Natural Science (satisfied by completion of mathematics and basic sciences requirements)        |  | ___                            | ___           |
| i. Global Understanding (3)*   | _____                                  | _____                          | _____         |
| j. Information Technology (satisfied by completion of major requirements)                          |  | ___                            | ___           |
| k. Synthesis (satisfied by completion of major requirements)                                       |  | ___                            | ___           |

\*Student must satisfy General Education requirements in two of these three areas: Arts, Global Understanding, and Western Civilization. The two additional General Education areas to be satisfied must be approved by the CEIE faculty advisor with the goal of best meeting the general education needs of the student.

**MATHEMATICS AND BASIC SCIENCES (33 hours required)**

|                               |            |         |
|-------------------------------|------------|---------|
| a. MATH 113, 114 (4,4)        | a. ___ ___ | ___ ___ |
| b. MATH 213, 214 (3,3)        | b. ___ ___ | ___ ___ |
| c. CHEM 251 or CHEM 211 (4)   | c. ___     | ___     |
| d. PHYS 160, 161 (3,1)        | d. ___     | ___     |
| e. PHYS 260, 261, 266 (3,1,1) | e. ___ ___ | ___ ___ |
| f. STAT 344, BIOL 377 (3, 3)  | f. ___ ___ | ___ ___ |

**ENGINEERING SCIENCES (66 hours required)**

|  |            |         |
|--|------------|---------|
| a. ENGR 107, ENGR 183 (2,3)                            | a. ___ ___ | ___ ___ |
| b. ENGR 117, ENGR 210 (3,3)                            | b. ___ ___ | ___ ___ |
| c. ENGR 310, ENGR 401 (3,3)                            | c. ___ ___ | ___ ___ |
| d. CEIE 230, CEIE 290 (3,3)                            | d. ___ ___ | ___ ___ |
| e. CEIE 301 (writing intensive course) (3)             | e. ___     | ___     |
| f. CEIE 305, CEIE 311 (3,3)                            | f. ___ ___ | ___ ___ |
| g. CEIE 340, CEIE 355 (3,3)                            | g. ___ ___ | ___ ___ |
| h. CEIE 360, CEIE 370 (3,3)                            | h. ___ ___ | ___ ___ |
| i. CEIE 400, CEIE 490 (3.3)                            | i. ___     | ___     |
| j. CEIE technical electives (list course numbers) (18) |            |         |
| 1. CEIE _____  | ___ ___    | ___ ___ |
| 2. CEIE _____  | ___ ___    | ___ ___ |
| 3. CEIE _____  | ___ ___    | ___ ___ |
| 4. CEIE _____  | ___ ___    | ___ ___ |
| 5. CEIE _____  | ___ ___    | ___ ___ |
| 6. CEIE _____  | ___ ___    | ___ ___ |

**A grade of C or better is required in all CEIE and ENGR courses.**

**MINIMUM HOURS TO GRADUATE: 120**

**UPPER DIVISION HOURS (minimum 45):**

This planning form is intended to be used in consultation with your academic advisor and reflects the requirements for the 2011-2012 Catalog; the University Catalog is the official reference for program requirements.

# COURSE LISTS (CIVIL AND INFRASTRUCTURE ENGINEERING)

## University General Education Requirements

Written Communication: ENGH 101 (or 100) and ENGH 302

Oral Communication: COMM 100

Quantitative Reasoning: MATH 113. The Math Placement Test is required to take a MATH course. See this web site for more information: [http://cos.gmu.edu/academics/undergraduate/math\\_placement\\_testing](http://cos.gmu.edu/academics/undergraduate/math_placement_testing))

Literature: ARAB 325; CHIN 310, 311, 325, 328; CLAS 250, 260, 340, 350, 360, 380; ENGH 201, 202, 203, 204; FREN 325, 329; FRLN 330; GERM 325; ITAL 325; PHIL 253; RELI 235; RUSS 325, 326, 327; SPAN 325

Arts: ARTH 102, 200, 201, 321, 322, 324, 333, 334, 341, 342, 344, 360, 362, 372, 373; DANC 101, 390, 391; ENGL 332; MUSI 101, 102, 107, 302; THR 101, 150, 151.

Western Civilization: HIST 100 or 125; transfer students may substitute the following courses for HIST 100 or 125: HIST 101, 102, 301, 302, 304, 305, 306, 308, 309, 314, 321, 322, 388, 435, 436, 480.

Social and Behavioral Sciences: **ECON 103**

Natural Sciences: PHYS 160/161 & 260/261

Global Understanding: ANTH 302, 304, 306, 309, 311, 312, 332, 385; ARTH 319, 320, 380, 382, 383, 384, 385; COMM 305; ECON 360, 361, 380, 390; ENGL 349; GGS 101; GOVT 132, 133; HIST 130, 251, 252, 261, 262, 272, 282, 329, 356, 364, 460, 462; MSOM 305; MUSI 103, 431; RELI 100, 211, 212, 313, 315, 374; RUSS 354; SOCI 120, 332; SPAN 322; WMST 100

Information Technology: ENGR 117

Synthesis: **CEIE 490**