

**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FAMU-FSU COLLEGE OF ENGINEERING**



**B.S. DEGREE REQUIREMENTS CERTIFICATION
MAJOR: ENVIRONMENTAL ENGINEERING**

Student's name _____

STUDENT # _____

Advisor _____

Home University _____

AA school & year received _____

Year entered university _____

Permanent (post-graduation) mailing address _____

email address _____

GENERAL EDUCATION / LIBERAL STUDIES REQUIREMENTS (24 credits)¹

¹ Civil/Env Engineering advisors can review general education/liberal studies courses; however, your home University has final approval. Please see a University advisor and/or do a liberal studies grad check to ensure that all requirements have been met.

| | AREA | PRE FIX / COURSE TITLE | COURSE TITLE | CRED. HOUR | UNIV. CODE ² | GRADE | SEM/YR |
|------------|-----------------|--|--------------|------------|-------------------------|-------|--------|
| I | Mathematics | Met with Calculus and Engineering Math courses as required by dept. for B.S. degree. | | | | | |
| II | Eng. Comp. I | ENC 1101 | | 3 | | | |
| | Eng. Comp. II | | | 3 | | | |
| III | History | | | 3 | | | |
| | History | | | 3 | | | |
| | Social Science | | | 3 | | | |
| | Social Science | | | 3 | | | |
| IV | Humanities | | | 3 | | | |
| | Humanities | | | 3 | | | |
| V | Natural Science | Met with Chemistry and Physics courses as required by dept. for B.S. degree. | | | | | |

²GR = GORDON RULE, FAMU & FSU
X = Cross Cultural studies, FSU ONLY

LR= Literature Requirement for Humanities, FSU ONLY
Y = Diversity in Western experience, FSU ONLY

AAE=Afr Am Exper, FAMU ONLY

MATHEMATICS AND BASIC SCIENCES REQUIREMENTS (40 credits)

| COURSE NO. | COURSE TITLE | CR | CREDITS (if transferred) | GR | SEM/YR |
|---------------|---|----|--------------------------|----|--------|
| MAC 2311 | Calculus with Analytic Geometry I | 4 | | | |
| MAC 2312 | Calculus with Analytic Geometry II | 4 | | | |
| MAC 2313 | Calculus with Analytic Geometry III | 5 | | | |
| MAP 2302/3305 | Ordinary Differential Eq. OR Engineering Math I | 3 | | | |
| PHY 2048C | General Physics with Laboratory I | 5 | | | |
| PHY 2049C | General Physics with Laboratory II | 5 | | | |
| CHM 1045 | General Chemistry I | 3 | | | |
| CHM 1045L | General Chemistry I Laboratory | 1 | | | |
| () _____ | Chemistry II w/Lab or Microbiology w/Lab ³ | 4 | | | |
| () _____ | Group A Science ⁴ _____ | 3 | | | |
| STA _____ | Group D Statistics ⁵ _____ | 3 | | | |

Total credits (transfer students only; **must exceed 32 credits**): _____

³ FAMU: CHM 1046/L General Chemistry II w/Laboratory OR MCB 3305C Microbiology; FSU: STA MCB 2004/L Microbiology for Health Science w/Laboratory
⁴ FAMU: BSC 1010C General Biology, EVR 3235 Atmospheric Processes, GLY 2010 Principles of Geology, PCB 2033 General Ecology, OR OCE 4008 Principles of Oceanography; FSU: BSC 2010 Biological Science, MET 2700 General Meteorology, GLY 2010C Physical Geology, GLY 1030 Environmental Issues in Geology, PCB 3043 General Ecology, OR OCE 4008 Principles of Oceanography
⁵ FAMU: STA 3034 Mathematical Statistics; FSU: STA 2122 Introduction to Applied Statistics, OR STA 3032 Applied Statistics for Engineers and Scientists

ENGINEERING CORE REQUIREMENTS (38 credits)

| COURSE NO | COURSE TITLE | CR | TR | GR | SEM/YR |
|-----------|---|----|----|----|--------|
| EGN 1004L | First Year Engineering ⁶ (COE Requirement) | 1 | | | |
| EGN 2123 | Engineering Graphics | 2 | | | |
| CEG 2202 | Intro to Geomatics Engineering | 3 | | | |
| CEG 2202L | Intro to Geomatics Engineering Lab ⁷ | 1 | | | |
| EGN 3613 | Principles of Engineering Economy | 2 | | | |
| EML 3100 | Thermodynamics | 2 | | | |
| EEL 3003 | Intro to Electrical Engineering (lab not required) | 3 | | | |
| EGM 3512 | Engineering Mechanics | 4 | | | |
| EGN 3331 | Strength of Materials | 3 | | | |
| CCE 3101 | Construction Materials | 3 | | | |
| CEG 3011 | Soil Mechanics | 3 | | | |
| CGN 3508L | Civil Engineering Materials Lab | 1 | | | |
| EES 3040 | Intro to Environmental Engineering | 3 | | | |
| CWR 3201 | Hydraulics | 3 | | | |
| CWR 3200L | Environmental/Hydraulic Engineering Lab | 1 | | | |
| TTE 3004 | Transportation Engineering | 3 | | | |

⁶ EGN 1004L or an acceptable substitute is a COE requirement (see your advisor for details)

⁷ FSU computer competency requirement is met w/CEG2202L; oral communications competency requirement is met w/ CGN4800 & CGN4802

ENVIRONMENTAL ENGINEERING SCIENCE AND DESIGN REQUIREMENTS (21 credits)

| | | | | | | |
|-----------|-----------|--|---|--|--|--|
| OR | CEG 4801 | Geotechnical Design | 3 | | | |
| | CEG 4111 | Foundation Design | | | | |
| OR | CCE 4__ | Construction Elective | 3 | | | |
| | TTE 4__ | Transportation Elective | | | | |
| | ENV 4001 | Environmental Engineering | 3 | | | |
| | CWR 4__ | Water Resources Elective | 3 | | | |
| | (__) 4__ | Group B (Eng/Math/Sci) ⁸ _____ | 3 | | | |
| | (__) 4__ | Group B (Eng/ Math/Sci) ⁸ _____ | 3 | | | |
| | (__) 4__ | Group C (Prof/Tech) ⁹ _____ | 3 | | | |

⁸ **Engineering/Math/Science Elective Courses:** Any 4000 level course offered by Department of Civil and Environmental Engineering that is not being used to meet another requirement, OR specified 3000 or 4000 level engineering, math, or science courses. See academic map for a complete listing of courses.

⁹ **Professional/Technical Elective Course:** A course outside the CEE department emphasizing professional development, computing, and other professional/technical skills. See academic map for a complete listing of courses.

MAJOR DESIGN EXPERIENCE (5 credits)

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|----------|---|---|--|--|--|
| CGN 4800 | Pre Senior Design and Professional Issues ⁷ | 2 | | | |
| CGN 4802 | Civil and Environ. Eng. Sr. Design Project ⁷ | 3 | | | |

Liberal Studies Grad Check Completed _____

FE exam date (opt.) _____

100 Credit Hour Grad Check by Advisor _____

Date _____

Approved by Department _____

Date _____

BE SURE TO ATTACH A COPY OF YOUR UNOFFICIAL TRANSCRIPT TO THIS FORM