BS in Civil Engineering/Civil Engineering Major Curriculum Flow Chart - Major declared Fall 2020 or later

**Pre-engineering**

**Term 1**
- Total hours = 15
- ENCN101 (3) or ENCN112 (FAMU only)
  Pre-req: CHECK GENERAL BULLETIN

**Term 2**
- Total hours = 15
- ENC1102 (FAMU) or other approved Second English
  Pre-req: ENC 1101

**Summer**
- Total hours = 12
- Liberal Studies Course (3)
  Pre-req: CHECK GENERAL BULLETIN
- PHY2048C (5) Physics I
  Pre-req: MAC 1114 & MAC 1140 or 1147
  Pre-req: CHECK GENERAL BULLETIN

**Term 3**
- Total hours = 16
- Liberal Studies Course (3)
  Pre-req: CHECK GENERAL BULLETIN
- MAC 2311 (4) Calculus I
  Pre-req: MAC 1105
  Co-req: CHM 1045L
- MAC 2312 (4) Calculus II
  Pre-req: MAC 2311
- XXX XXXX (3) Science Elective
  GROUP A
  Pre-req: MAC 1114 & MAC 1140 or 1147
  See approved course list on back page

**Term 4**
- Total hours = 16
- Liberal Studies Course (3)
  Pre-req: CHECK GENERAL BULLETIN
- MAC 2313 (5) Calculus III
  Pre-req: MAC 2312
- EES 3040 (3) Intro to Environmental Engineering
  Pre-req: CHM 1045L, MAC 2311
  See approved course list on back page
- EGN6313 (2) Eng. Economy
  Pre-req: MAC 2311
- TEE 3004 (3) Trans. Eng.
  Pre-req: STA XXXX, CEG 2202, CEG 2202L
- XXX XXXX (3) Group B Eng/Math/Sci
  Pre-req: Must be in Pre-Eng. Major
  Go to: Student Services at COE

**Term 5**
- Total hours = 16
- CGN 3311 (3) Strength of Materials
  Pre-req: PHY 2048C, MAC 2312
- CEG 3201 (3) Hydraulics
  Pre-req: MAC 2311
- TEE 3004 (3) Trans. Eng.
  Pre-req: STA XXXX, CEG 2202, CEG 2202L
- CGN3508L (1) CE Materials Lab
  Pre-req: EGN3311, MAP 3305
  Co/pre-req: CGN 3508L

**Term 6**
- Total hours = 14
- CEG 3011 (3) Soil Mechanics
  Co/pre-req: EGN 3311
- EML 3003 (3) Intro to Electrical Eng
  Lab NOT REQUIRED
  Pre-req: MAC 2312, PHY 2049C
- CEG 4001(3) Geotech Design
  Pre-req: CEG 3011
  Co-pre-req: CWR 3201L
- XXX XXXX (3) Group C Prof/Tech
  See approved course list on back page

**Term 7**
- Total hours = 15
- EGN 4800 (3) Senior Design Project I
  Pre-req: EGN 3512
  Co-pre-req: CEG 2202L
  Senior Standing
- CWR 4XXX (3) Trans. Elec OR CCE 4XXX(3)
  Construction Elec
  Pre-req: CHECK GENERAL BULLETIN
- XXX XXXX (3) Group B Eng/Math/Sci
  Pre-req: Must be in Pre-Eng. Major
  Go to: Student Services at COE

**Term 8**
- Total hours = 12
- XXX XXXX (3) Group B Eng/Math/Sci
  See approved course list on back page

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*Capstone senior design sequence must be taken sequentially. In addition:
- CGN 4800 meets FSU’s UDW & SIP requirements
- CGN 4802 meets FSU’s FE (Formative Experience) requirement
- CGN 4800 & CGN 4802 together meet FSU’s OCC (Oral Communications Competency) req.

This flowchart is a suggested academic map; Students may take any course if pre-requisite requirements are met. See http://eng.famu.fsu.edu/cee/undergraduate/resources for additional pre-req and advising information.

Updated: 06/2021
BS in Civil Engineering/Environmental Engin. Major Curriculum Flow Chart - Major declared Fall 2020 or later

Term 1: Total hours = 15
- ENC1101 (3) or ENC 1121 (FAMU only)
  Pre-req: CHECK GENERAL BULLETIN
- MAC 1105 or other approved
  Pre-req: MAC 1105
- MAC 1140 or 1147
- MAC 2311 (4) or MAC 2312 (4)
  Req. to Declare Major
  Pre-req: MAC 1114 & MAC 2311
- MAC 2313 (4)
  Req. to Declare Major
  Pre-req: MAC 2311
- XXX XXXX (3)
  Req. to Declare Major
  Pre-req: MAC 1114 & MAC 1140 or 1147

Term 2: Total hours = 15
- PHY204C (5) Physics I
  Pre-req: CHECK GENERAL BULLETIN
- PHY2049C (5) Physics II
  Pre-req: PHY 2048C, MAC 2312
- STA XXXX (3) Statistics
  Course
- STA XXXX (3) Statistics Course
  Pre-req: CHECK GENERAL BULLETIN

Term 3: Total hours = 16
- EGM 3512 (4) Eng. Mechanics
  Pre-req: PHY 2048C, MAC 2312
- CEG 3011 (3) Strength of Materials
  Pre-req: EGM 3512
- CEG 3201 (3)
  Intro to Geomat & Lab
  Pre-req: MAC 2311
  Course & lab must be taken same semester
- CWR 3200L (1)
  Env/Hyd Eng Lab
  Pre-req: CEG 3201
  or EES 3040

Term 4: Total hours = 13
- EG 3311 (3)
  Intro to Environmental Engineering
  Pre-req: CHM 1045 & MAC 2311

Term 5: Total hours = 16
- MAC 2312 (4)
  Calculus II
  Pre-req: MAC 2311
- MAC 2315 (4) Calculus III
  Pre-req: MAC 2312

Term 6: Total hours = 13
- ESM 3040 (3)
  Intro to Environmental Engineering
  Pre-req: CHM 1045 & MAC 2311
  “B” in MAC 2312

Term 7: Total hours = 16
- CGN 4800 (3)
  Senior Design Project I
  Pre-req: CGN 3308 or CGN 3506

Term 8: Total hours = 12
- CGN 4802 (3) Senior Design Project II
  Pre-req: CGN 4800 Senior Standing

*Capstone senior design sequence must be taken sequentially. In addition:
- CGN 4800 meets FSU's UDW & SIP requirements
- CGN 4802 meets FSU's FE (Formative Experience) requirement
- CGN 4800 & CGN 4802 together meet FSU's OCC (Oral Communications Competency) req.

This flowchart is a suggested academic map; Students may take any course if pre-requisite requirements are met. See http://eng.famu.fsu.edu/cee/undergraduate/resources for additional pre-req and advising information.

Updated: 06/2021
GROUP A: Science Elective Courses (select ONE)

- **FAMU:**
  - BSC 1010C General Biology I (4)
  - EVR 3235 Atmospheric Processes (3)
  - GLY 2010 Principles of Geology (3)
  - PCB 2033 General Ecology (3)
  - EVR 3023 Introduction to Marine Environment (3)

- **FSU:**
  - BSC 2010 Biological Science (3)
  - MET 2700 General Meteorology (3)
  - GLY 2010C Physical Geology (4)
  - GLY 1030 Environmental Issues in Geology (3)
  - PCB 3043 General Ecology (3)
  - OCE 4008 Principles of Oceanography (3)

GROUP B: Math/Engineering/Science Elective Courses (select THREE)

**ALL Group B courses MAY be from the CEE Dept. but at least TWO Group B courses MUST be from the CEE Dept.:**

- **CEE Department (at least two Group B courses must come from this list):**
  - CCE 4xxx Any 4000-level CCE course not meeting another requirement
  - CEG 4xxx Any 4000-level CEG course not meeting another requirement
  - CES 4xxx Any 4000-level CES course not meeting another requirement
  - CWR 4xxx Any 4000-level CWR course not meeting another requirement
  - ENV 4xxx Any 4000-level ENV course not meeting another requirement
  - TTE 4xxx Any 4000-level TTE course not meeting another requirement
  - CGN 4930* Select 4000-level Special Topics (see Academic Coord for info)
    - It is recommended that students interested in M.Eng. w/Structures take both CES 4605 and CES 4702

- **FSU:**
  - GLY 4730 Marine Geology (3)
  - GLY 4884 Environmental Geology I (3)
  - GLY 4820 Principles of Hydrology (3)
  - OCC 4060 Environmental Science Modeling (3)
  - OCE 4631 Aquatic Pollution (3)
  - URP 4936* International Transportation Planning (3)

- **FAMU:**
  - EVR 3028: Environmental Modeling Principles (3)
  - EVR 3867: Environmental Risk Analysis (3)

GROUP C: Professional/Technical Elective Courses (select ONE)

A course outside of the CEE department emphasizing professional development, computing, and other professional/technical skills.

- **COE:**
  - CGN 3145 Blending STEM and Public Policy (3)
  - EIN 4445 Technology Entrepreneurship and Commercialization (3)

- **FSU:**
  - CGS 3406 Object-Oriented Programming in C++ (3)
  - COP 3014 Programming I (3)
  - ENC 4212 Editing: Manuscripts, Documents, Reports (3)
  - GIS 2040 Essentials of Geographic Information Systems (3)
  - GIS 4043 & Lab Geographic Info Processing & Systems (3+1)
  - PAD 4380 Disasters: From Shock to Recovery (3)
  - URP 4710 Intro to Transportation Issues and Transportation Planning (3)

- **FAMU:**
  - COP 3014 Fundamentals of Programming (3)
  - ENC 3243 Technical Report Writing (3)
  - GIS 1040 Intro to GIS (3)
  - AGR 4430C Geographic Info Systems (4)

*NOTE: Multiple special topics (4930/4936) courses may share the same course number. Make sure that you are enrolling in the correct section.*

GROUP D: Statistics Courses (select ONE)

- **FAMU:**
  - STA 3034 Mathematical Statistics (3)

- **FSU:**
  - STA 2122 Introduction to Applied Statistics (3)
  - STA 3032 Applied Statistics for Engineers and Scientists (3)
  - STA 2023 Fundamental Statistics (3)

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