

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

← Pre-engineering →

Civil Major →

Term 1	Term 2	Summer	Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
<b>Total hours = 15</b>	<b>Total hours = 15</b>	<b>Total hours = 12</b>	<b>Total hours = 16</b>	<b>Total hours = 13</b>	<b>Total hours = 16</b>	<b>Total hours = 14**</b>	<b>Total hours = 15</b>	<b>Total hours = 12</b>
<p>ENC1101 (3) or ENC 1121 (FAMU only)</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English</p> <p>Pre-req: ENC 1101</p>	<p>Liberal Studies Course (3)</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>PHY2049C OR PHY 2049/L (5) Physics II &amp; Lab</p> <p>Pre-reqs: PHY 2048C, MAC 2312</p>	<p>EGM 3512 (4) Eng. Mechanics</p> <p>Pre-req: PHY 2048C MAC 2312 Co/pre-req. MAC 2313</p>	<p>EGN 3331 (3) Strength of Materials</p> <p>Pre-req: EGM 3512</p>	<p>CES 3100 (4) Structural Analysis</p> <p>Pre-req: EGM 3512 Co/pre-reqs: EGN 3331, MAP 2302</p>	<p>CGN 4800 (3) * Senior Design Project I</p> <p>Co/pre-req: CGN 3326 Senior Standing</p>	<p>CGN 4802 (3) * Senior Design Project II</p> <p>Pre-req: CGN 4800 Senior Standing</p>
<p>Liberal Studies Course (3)</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>Liberal Studies Course (3)</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>Liberal Studies Course (3)</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>STA XXXX (3) Statistics Course</p> <p style="background-color: #c8e6c9;"><b>GROUP D</b> See approved course list on back page</p>	<p>CEG 2202 (3+1) Intro to Geomat &amp; Lab</p> <p>Pre-Req: MAC 2311 Course &amp; lab must be taken same semester</p>	<p>CEG 3011 (3) Soil Mechanics</p> <p>Co/pre-req: EGN 3331</p>	<p>EML 3100 (2) Thermo Dynamics</p> <p>Pre-reqs: MAC2312, CHM 1045, PHY 2048</p> <p style="text-align: center;"><b>OR</b></p> <p>EEL 3003 (3) Intro to Electrical Eng</p> <p style="background-color: #ffccbc;"><b>LAB NOT REQUIRED</b></p> <p>Pre-req: MAC 2312, PHY 2049C</p>	<p>CEG 4801(3) Geotech Design</p> <p>Pre-req: CEG 3011 Co/pre-req: CGN3508L</p>	<p>TTE 4XXX(3) Trans. Elec OR CCE 4XXX(3) Construction Elec</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>
<p>CHM 1045/L (4) General Chem I &amp; Lab</p> <p>Pre-req: MAC 1105 Co-req: CHM 1045L</p>	<p style="background-color: #fff9c4;">PHY2048C OR PHY 2048/L (5) Physics I &amp; Lab</p> <p style="background-color: #fff9c4;">Req. to Declare Major</p> <p>Pre-req: MAC 2311</p>	<p>Liberal Studies Course (3)</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>MAC 2313 (5) Calculus III</p> <p>Pre-req: MAC 2312</p>	<p>MAP 3305 (3) Eng. Math OR MAP 2302 (3) ODE</p> <p>Pre-req: MAC 2313 or "B" in MAC 2312</p>	<p>CGN 3326 (3) CE Graphics &amp; Design Tools</p> <p>Pre-req: CEG 2202&amp;L</p>	<p>CES 4702(3) Conc Des OR CES 4605(3) Steel Design</p> <p>Pre-req: EGN 3331 CES 3100 Co/Pre-req: CGN 3508L</p>	<p>XXX XXXX (3) Group B Eng/Math/Sci</p> <p style="background-color: #c8e6c9;">See approved course list on back page</p>	
<p style="background-color: #fff9c4;">MAC 2311 (4) Calculus I</p> <p style="background-color: #fff9c4;">Req. to Declare Major</p> <p>Pre-req: MAC 1114 &amp; MAC 1140 or 1147</p>	<p style="background-color: #fff9c4;">MAC 2312 (4) Calculus II</p> <p style="background-color: #fff9c4;">Req. to Declare Major</p> <p>Pre-req: MAC 2311</p>	<p>XXX XXXX (3) Science Elective GROUP A</p> <p style="background-color: #c8e6c9;">See approved course list on back page</p>	<p>EES 3040 (3) Intro.to Environmental Engineering</p> <p>Pre-reqs: CHM 1045&amp;L, MAC 2311</p>	<p>EGN3613 (2) Eng. Economy</p> <p>Pre-req: MAC 2313</p>	<p>CWR 3201 (3) Hydraulics</p> <p>Pre-req: EGM 3512</p>	<p>CCE 3101 (3) Const. Materials</p> <p>Pre-req: EGN 3331</p>	<p>ENV 4XXX(3) Env Elec OR CWR 4XXX Wat Res Elec</p> <p>Pre-req: CHECK GENERAL BULLETIN</p>	<p>XXX XXXX (3) Group C Prof/Tech</p> <p style="background-color: #c8e6c9;">See approved course list on back page</p>
<p style="background-color: #fff9c4;">EGN 1004L (1) First Year Eng. Lab</p> <p style="background-color: #fff9c4;">Req. to Declare Major</p> <p>Pre-req: Must be in Pre-Eng. Major</p>		<p style="background-color: #ffe0b2;"><b>DECLARE YOUR MAJOR</b></p> <p style="background-color: #ffe0b2;">Go to: Student Services at COE</p>			<p>TTE 3004 (3) Trans. Eng.</p> <p>Pre-req: STAXXXX, CEG 2202, CEG 2202L</p>	<p>CGN3508L (1) CE Materials Lab</p> <p>Pre-req: EGN3331 Co/pre-req: CCE 3101 or CEG 3011</p>	<p>XXX XXXX (3) Group B Eng/Math/Sci</p> <p style="background-color: #c8e6c9;">See approved course list on back page</p>	<p style="background-color: #ffe0b2;"><b>APPLY FOR GRADUATION ONLINE 2ND WEEK OF SEMESTER</b></p>
<p><b>*Capstone senior design sequence must be taken sequentially. In addition:</b></p> <ul style="list-style-type: none"> <li>• CGN 3326 meets FSU's Digital Literacy requirement</li> <li>• CGN 4800 meets FSU's UDW &amp; SIP requirements</li> <li>• CGN 4802 meets FSU's FE (Formative Experience) requirement</li> <li>• CGN 4800 &amp; CGN 4802 together meet FSU's OCC (Oral Communications Competency) req.</li> </ul> <p><b>**Students who take EML 3100 will complete this coursework with 127 hours. Students remain subject to the university-level requirement of 128 credit hours for graduation and will need to satisfy remaining credit hour(s) to meet 128 with additional coursework.</b></p>								
					<p style="background-color: #fff9c4;"><b>OPTIONAL: CHECK FOR INTERNSHIP OPPORTUNITIES AT CAREER SERVICES/COE</b></p>	<p>CWR 3200L (1) Env/Hyd Eng Lab</p> <p>Co/pre-req: CWR 3201 or EES 3040</p>	<p style="background-color: #c8e6c9;">XXX XXXX (3) Group B Eng/Math/Sci</p> <p style="background-color: #c8e6c9;">See approved course list on back page</p>	<p style="background-color: #ffe0b2;"><b>SIGN UP FOR FE EXAM</b></p> <p style="background-color: #ffe0b2;">Go to: FBPE.ORG</p>
							<p style="background-color: #ffe0b2;"><b>COMPLETE DEPARTMENT &amp; UNIVERSITY GRAD CHECKS</b></p>	

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.

# BS in Civil Engineering/Environmental Engin. Major Curriculum Flow Chart - Major declared Fall 2020 or later

← Pre-engineering →

← Environmental Major →

Term 1	Term 2	Summer	Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
<b>Total hours = 15</b>	<b>Total hours = 15</b>	<b>Total hours = 12</b>	<b>Total hours = 16</b>	<b>Total hours = 13</b>	<b>Total hours = 16</b>	<b>Total hours = 13**</b>	<b>Total hours = 16</b>	<b>Total hours = 12</b>
<p>ENC1101 (3) or ENC 1121 (FAMU only)  Pre-req: CHECK GENERAL BULLETIN</p>	<p>ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English  Pre-req: ENC 1101</p>	<p>Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN</p>	<p>PHY2049C OR PHY 2049/L (5) Physics II &amp; Lab  Pre-reqs: PHY 2048C, MAC 2312</p>	<p>EGM 3512 (4) Eng. Mechanics  Pre-req: PHY 2048C MAC 2312 Co/pre-req. MAC 2313</p>	<p>EGN 3331 (3) Strength of Materials  Pre-req: EGM 3512</p>	<p>ENV 4001 OR 4500 (3) Env Engineering OR Env Unit Processes  Pre-req: CHECK GENERAL BULLETIN</p>	<p>CGN 4800 (3) * Senior Design Project I  Co/pre-req: CGN 3326 Senior Standing</p>	<p>CGN 4802 (3) * Senior Design Project II  Pre-req: CGN 4800 Senior Standing</p>
<p>Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN</p>	<p>Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN</p>	<p>Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN</p>	<p>STA XXXX (3) Statistics Course  <b>GROUP D</b> See approved course list on back page</p>	<p>CEG 2202 (3+1) Intro to Geomat &amp; Lab Pre-Req: MAC 2311  Course &amp; lab must be taken same semester</p>	<p>CEG 3011 (3) Soil Mechanics  Co/pre-req: EGN 3331</p>	<p>EML 3100 (2) Thermo Dynamics Pre-reqs: MAC2312, CHM 1045, PHY 2048  OR  EEL 3003 (3) Intro to Electrical Eng <b>LAB NOT REQUIRED</b>  Pre-req: MAC 2312, PHY 2049C</p>	<p>CEG 4801(3) Geotech Design  Pre-req: CEG 3011 Co/pre-req: CGN3508L</p>	<p>TTE 4XXX(3) Trans. Elec OR CCE 4XXX(3) Construction Elec  Pre-req: CHECK GENERAL BULLETIN</p>
<p>CHM 1045/L (4) General Chem I &amp; Lab  Pre-req: MAC 1105 Co-req: CHM 1045L</p>	<p>PHY2048C OR PHY 2048/L (5) Physics I &amp; Lab <i>Req. to Declare Major</i>  Pre-req: MAC 2311</p>	<p>Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN</p>	<p>MAC 2313 (5) Calculus III  Pre-req: MAC 2312</p>	<p>MAP 3305 (3) Eng. Math OR MAP 2302 (3) ODE  Pre-req: MAC 2313 or "B" in MAC 2312</p>	<p>CGN 3326 (3) CE Graphics &amp; Design Tools  Pre-req: CEG 2202&amp;L</p>	<p>CHM 1046/L Chem II(4) OR MCB 2004/L(4) FSU OR MCB 3005C(4) FAMU</p>	<p>XXX XXXX (3) Group B Eng/Math/Sci  See approved course list on back page</p>	
<p>MAC 2311 (4) Calculus I <i>Req. to Declare Major</i>  Pre-req: MAC 1114 &amp; MAC 1140 or 1147</p>	<p>MAC 2312 (4) Calculus II <i>Req. to Declare Major</i>  Pre-req: MAC 2311</p>	<p>XXX XXXX (3) Science Elective GROUP A  See approved course list on back page</p>	<p>EES 3040 (3) Intro.to Environmental Engineering  Pre-reqs: CHM 1045&amp;L, MAC 2311</p>	<p>EGN3613 (2) Eng. Economy  Pre-req: MAC 2313</p>	<p>CWR 3201 (3) Hydraulics  Pre-req: EGM 3512</p>	<p>CCE 3101 (3) Const. Materials  Pre-req: EGN 3331</p>	<p>CWR 4XXX (3) Water Resources Elec  Pre-req: CHECK GENERAL BULLETIN</p>	<p>XXX XXXX (3) Group C Prof/Tech  See approved course list on back page</p>
<p>EGN 1004L (1) First Year Eng. Lab <i>Req. to Declare Major</i>  Pre-req: Must be in Pre-Eng. Major</p>		<p>DECLARE YOUR MAJOR Go to: Student Services at COE</p>			<p>TTE 3004 (3) Trans. Eng.  Pre-req: STAXXXX, CEG 2202, CEG 2202L</p>	<p>CGN3508L (1) CE Materials Lab  Pre-req: EGN3331 Co/pre-req: CCE 3101 or CEG 3011</p>	<p>XXX XXXX (3) Group B Eng/Math/Sci  See approved course list on back page</p>	<p>APPLY FOR GRADUATION ONLINE 2ND WEEK OF SEMESTER</p>
<p><b>*Capstone senior design sequence must be taken sequentially. In addition:</b></p> <ul style="list-style-type: none"> <li>• CGN 3326 meets FSU's Digital Literacy requirement</li> <li>• CGN 4800 meets FSU's UDW &amp; SIP requirements</li> <li>• CGN 4802 meets FSU's FE (Formative Experience) requirement</li> <li>• CGN 4800 &amp; CGN 4802 together meet FSU's OCC (Oral Communications Competency) req.</li> </ul> <p><b>**Students who take EML 3100 will complete this coursework with 127 hours. Students remain subject to the university-level requirement of 128 credit hours for graduation and will need to satisfy remaining credit hour(s) to meet 128 with additional coursework.</b></p>								
					<p>CWR 3200L (1) Env/Hyd Eng Lab  Co/pre-req: CWR 3201 or EES 3040</p>	<p>XXX XXXX (3) Group B Eng/Math/Sci  See approved course list on back page</p>	<p>SIGN UP FOR FE EXAM Go to: FBPE.ORG</p>	<p>COMPLETE DEPARTMENT &amp; UNIVERSITY GRAD CHECKS</p>
					<p>OPTIONAL: CHECK FOR INTERNSHIP OPPORTUNITIES AT CAREER SERVICES/COE</p>			

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.

## GROUP A : Science Elective Courses (select ONE)

- **FAMU:**
  - BSC 1005 Biological Science (3)
  - BSC 1010 General Biology I (3)
  - EVR 3235 Atmospheric Processes (3)
  - GLY 2010 Principles of Geology (3)
  - PCB 2033 General Ecology (3)
  - EVR 3023 Introduction to Marine Environment (3)
  - EVS 4007 Introduction to Environmental Science (3)
- **FSU:**
  - BSC 1005 General Biology for Nonmajors (3)
  - 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)

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## 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)
- **FAMU:**
  - AGR 4430 GIS and Remote Sensing (3)
  - BCN 4705 Contract Codes & Law (3)
  - COP 3014C Fundamentals of Programming (4)
  - ENC 3243 Technical Report Writing (3)
  - GIS 1040 Intro to GIS (3)
  - POS 4697 Environmental Law (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 Information Systems (3+1)
  - GIS 4330 Florida GIS Applications (3)
  - PAD 4380 Disasters: From Shock to Recovery (3)
  - URP 4710 Intro to Transportation Issues and Transportation Planning (3)

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

## 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
- **FAMU:**
  - BCN 4617 Construction Estimating I (3)
  - BCN 3253 Construction Accounting (3)
  - EVR 3028 Environmental Modeling Principles (3)
  - EVR 3867 Environmental Risk Analysis (3)
  - EVR 4027C Wetlands Preservation and Restoration (4)
  - EVS 3395 Contaminant Hydrogeology (3)
- **FSU:**
  - EOC 4631 Marine Pollution (3)
  - GLY 4451 Introduction to Geophysics (3)
  - GLY 4730 Marine Geology (3)
  - GLY 4751C Introduction to Remote Sensing, Air Photo Interpret & GIS (3)
  - GLY 4884 Environmental Geology I (3)
  - GLY 4820 Principles of Hydrology (3)
  - OCC 4060 Environmental Science Modeling (3)
  - URP 4936\* International Transportation Planning (3)
- **COE:**
  - ESI 3312C Operations Research I: Deterministic (3)
  - EML 4930\* Experimental Methods in Nanoscale Science & Engineering (3)

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## GROUP D: Statistics Courses (select ONE)

- **FAMU:**
  - STA 2023 Intro to Probability and Statistics (3)
  - STA 3034 Mathematical Statistics(3)
- **FSU:**
  - STA 2023 Fundamental Statistics (3)
  - STA 2122 Introduction to Applied Statistics (3)
  - STA 3032 Applied Statistics for Engineers and Scientists (3)