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

Pre-engineering			———— Civil Major —				
Term 2	Summer	Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
Total hours = 15	Total hours = 12	Total hours = 16	Total hours = 13	Total hours = 16	Total hours = 14**	Total hours = 15	Total hours = 12
ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English Pre-req: ENC 1101	Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN	PHY2049C OR PHY 2049/L (5) Physics II & Lab Pre-reqs: PHY 2048C, MAC 2312	EGM 3512 (4) Eng. Mechanics Pre-req: PHY 2048C MAC 2312 Co/pre-req. MAC 2313	EGN 3331 (3) Strength of Materials Pre-req: EGM 3512	CES 3100 (4) Structural Analysis Pre-req: EGM 3512 Co/pre-reqs: EGN 3331, MAP 2302	CGN 4800 (3) * Senior Design Project I  Co/pre-req: CGN 3326 Senior Standing	CGN 4802 (3) * Senior Design Project II  Pre-req: CGN 4800 Senior Standing
Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN	Liberal Studies Course (3)  Pre-req: CHECK GENERAL BULLETIN	STA XXXX (3) Statistics Course  GROUP D See approved course list on back page	CEG 2202 (3+1) Intro to Geomat & Lab Pre-Req: MAC 2311 Course & lab must be taken same semester	CEG 3011 (3) Soil Mechanics Co/pre-req: EGN 3331	EML 3100 (2) Thermo Dynamics Pre-reqs: MAC2312, CHM 1045, PHY 2048 OR	CEG 4801(3) Geotech Design Pre-req: CEG 3011 Co/pre-req: CGN3508L	TTE 4XXX(3) Trans. Elec OR CCE 4XXX(3 Construction Elec Pre-req: CHECK GENERAL BULLETIN
PHY2048C OR PHY 2048/L (5) Physics I & Lab Req. to Declare Major Pre-req: MAC 2311	Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN	MAC 2313 (5) Calculus III Pre-req: MAC 2312	MAP 3305 (3) Eng. Math OR MAP 2302 (3) ODE  Pre-req: MAC 2313 or "B" in MAC 2312	CGN 3326 (3) CE Graphics & Design Tools Pre-req: CEG 2202&L	EEL 3003 (3) Intro to Electrical Eng LAB NOT REQUIRED Pre-req: MAC 2312, PHY 2049C	CES 4702(3) Conc Des OR CES 4605(3) Steel Design Pre-req: EGN 3331 CES 3100 Co/Pre-req: CGN 3508L	XXX XXXX (3) Group B Eng/Math/So See approved course list on back page
MAC 2312 (4) Calculus II Req. to Declare Major Pre-req: MAC 2311	XXX XXXX (3) Science Elective GROUP A  See approved course list on back page	EES 3040 (3) Intro.to Environmental Engineering Pre-reqs: CHM 1045&L, MAC 2311	EGN3613 (2) Eng. Economy Pre-req: MAC 2313	CWR 3201 (3) Hydraulics Pre-req: EGM 3512	CCE 3101 (3) Const. Materials Pre-req: EGN 3331	ENV 4XXX(3) Env Elec OR CWR 4XXX Wat Res Elec Pre-req: CHECK GENERAL BULLETIN	XXX XXXX (3) Group C Prof/Tech See approved course list on back page
	DECLARE YOUR MAJOR Go to: Student Services at COE			TTE 3004 (3) Trans. Eng. Pre-req: STAXXXX, CEG 2202, CEG 2202L	CGN3508L (1) CE Materials Lab Pre-req: EGN3331 Co/pre-req: CCE 3101 or CEG 3011	XXX XXXX (3) Group B Eng/Math/Sci See approved course list on back page	APPLY FOR GRADUATION ONLINE 2ND WEEK OF SEMESTER
*Capstone senior design sequence must be taken sequentially. In addition:  • CGN 3326 meets FSU's Digital Literacy requirement  • 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.  **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.  CWR 3200L (1) Env/Hyd Eng Lab  Co/pre-req: CWR 3201 or ES 3040  See approved course list on back page  OPTIONAL: CHECK FOR INTERNSHIP OPPORTMENT & UNIVERSITY GRAD CHECKS  AT CAREER SERVIES/COE							
	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English Pre-req: ENC 1101  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048L (5) Physics I & Lab Req. to Declare Major Pre-req: MAC 2311  MAC 2312 (4) Calculus II Req. to Declare Major Pre-req: MAC 2311  **MAC 2312 (4) Calculus II Req. to Declare Major Pre-req: MAC 2311  **Total hours  Pre-req: MAC 2311  **Color of the Color of the University-level CGN 4802 together meetake EML 3100 will cot to the university-level	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English Pre-req: ENC 1101  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048/L (5) Physics 18 Lab Req. to Declare Major Pre-req: MAC 2311  MAC 2312 (4) Calculus II Req. to Declare Major Pre-req: MAC 2311  MAC 2312 (4) Calculus II Req. to Declare Major Pre-req: MAC 2311  DECLARE YOUR MAJOR Go to: Student Services at COE  T design sequence must be taken sequent ets FSU's Digital Literacy requirement ets FSU's Digital Literacy requirement ets FSU's FE (Formative Experience) require EGN 4802 together meet FSU's OCC (Oral Cotake EML 3100 will complete this course to the university-level requirement of 128	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) or of their approved Second English Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  End Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  End Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  MAC 2312 (4) Calculus II Pre-req: MAC 2311  EES 3040 (3) Intro.to Environmental Engineering Pre-req: MAC 2311  EES 3040 (3) Intro.to Environmental Engineering Pre-req: CHECK GENERAL BULLETIN  DECLARE YOUR MAJOR Go to: Student Services at COE  Total hours = 16  PHY 2049/L (5) Physics II & Lab Pre-req: CHECK GENERAL BULLETIN  II Pre-req: CHECK GENERAL BULLETIN  EES 3040 (3) Intro.to Environmental Engineering Pre-req: CHECK GROUP A  See approved course list on back page  Total hours = 16  PHY 2049/L (5) Physics II & Lab Pre-req: CHECK GENERAL BULLETIN  II Pre-req: CHECK GENERAL BULLETIN  MAC 2313 (5) Calculus III Pre-req: MAC 2312  II Pre-req: MAC 2312  EES 3040 (3) Intro.to Environmental Engineering Pre-req: CHECK GENERAL BULLETIN  II Pre-req: MAC 2311  II Pre-req: MAC 2311  II Pre-req: MAC 2312  II Pre-req: CHECK GENERAL BULLETIN  II Pre-req: MAC 2312  II Pre-req: CHECK GENERAL BULLETIN  II Pre-req: MAC 2313 (5) Calculus III Pre-req: MAC 2312  II Pre-req: CHECK GENERAL BULLETIN  II II Pre-req: MAC 2312  II II Pre-req: MAC 2312  II I	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048C, MAC 2312  Colpre-req. MAC 2313  Course (3) Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048C, MAC 2312  Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048I (5) Physics is Lab Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048I (5) Physics is Lab Course (3) Pre-req: CHECK GENERAL BULLETIN  PHY2048C OR PHY 2048I (5) Physics is Lab Course (3) Pre-req: CHECK GENERAL BULLETIN  Course & lab must be taken semester  MAC 2313 (5) Calculus III Pre-req: MAC 2312  MAC 2312 (4) Calculus II Req. to Declare Major Pre-req: MAC 2311  DECLARE YOUR MAJOR Go to: Student Services at COE  Teles: 3040 (3) Intro.to Environmental Engineering Pre-req: MAC 2313  EGM 3512 (4) Eng. Mechanics Pre-req: PHY 2048C, MAC 2312  Colpre-req. MAC 2311  Course & lab must be taken sequentially. In addition:  EES 3040 (3) Intro.to Environmental Engineering Pre-req: MAC 2313  EGM 3512 (4) Eng. Mechanics Pre-req: PHY 2048C, MAC 2312  MAP 2302 (3) ODE Pre-req: MAC 2313 or B' in MAC 2311  EGM 3512 (4) Eng. Herq. MAC 2311  Course & lab must be taken sequentially. Intro.to Environmental Engineering Pre-req: MAC 2313  Pre-req: MAC 2313  Pre-req: MAC 2313  Pre-req: MAC 2313  Intro.to Environmental Engineering Pre-req: MAC 2313  Pre-req: MAC 2313  EGM 3512 (4) Eng. Mechanics Pre-req: PHY 2048C, MAC 2312  MAP 2302 (3) ODE Pre-req: MAC 2313  EGM 3512 (4) Eng. Mechanics Pre-req: PHY 2048C, MAC 2312  EGM 3512 (4) Eng. Mach 2312  EGM 3512 (4) Eng. Mach 2312  EGM 3512 (4) Eng. Mach 2312  EGM 3513 (2) Eng. Economy B' in MAC 2313  EGM 3513 (2) Eng. Economy Pre-req: MAC 2313  Pre-req: MAC 2313  Erg. Mach 2312  EGM 3512 (4) Eng. Mach 2312  Eng. Mach 2312  EGM 3512 (4) Eng. Mach 2312  EGM 3	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Pre-req: CHECK GENERAL BULLETIN  Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-req: CHECK GENERAL BULLETIN  Course & lab must be taken semester  Liberal Studies Course (3) Pre-req: MAC 2312  Cofpre-req: MAC 2313 or 8' in MAC 2313  Cofpre-req: CHECK GENERAL BULLETIN  ESS 3040 (3) Intro to Environmental English MAC 2313  DECLARE YOUR MAJOR Pre-req: CHECK Go to: Student Services at COE  Course (3)  DECLARE YOUR MAJOR MAC 2311  DECLARE YOUR MAJOR MAC 2312  DECLARE YOUR MAJOR MAC 2313  COPRE-req: CHECK GO 2202&L  TTE 3004 (3) Trans. Eng. Pre-req: EGM 3512  COWR 3201 (3) Pre-req: CEG 2202&C  CEG 2202. CEG 2	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) or other approved Second English Pre-reg. CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-reg. CHECK GENERAL BULLETIN  Liberal Studies Course (3) Pre-reg. CHECK GENERAL BULLETIN  Liberal Studies Course (3) Statastics Course (3) Statastics Course (3) Pre-reg. CHECK GENERAL BULLETIN  Liberal Studies Course (3) Statastics Course (3) Corper-reg. EGN 3331 Corper-	Total hours = 15  ENC 1102 (FAMU) ENC 2135 (FSU) EN

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 Total hours = 16 Total hours = 13 Total hours = 13\*\* Total hours = 16 Total hours = 15 Total hours = 15 Total hours = 12 Total hours = 16 Total hours = 12 ENV 4001 OR 4500 (3) CGN 4800 (3) \* CGN 4802 (3) \* ENC1101 (3) ENC 1102 (FAMU) PHY2049C OR EGM 3512 (4) EGN 3331 (3) **Liberal Studies** or ENC 1121 ENC 2135 (FSU) PHY 2049/L (5) Eng. Mechanics Env Engineering OR Senior Design Senior Design Strength of Materials Course (3) Project I Project II (FAMU only) or other approved Physics II & Lab **Env Unit Processes** Second English Pre-reg: PHY 2048C Pre-req: CHECK Pre-req: EGM 3512 Pre-reg: CHECK MAC 2312 Co/pre-reg: CGN 3326 Pre-reg: CGN 4800 Pre-req: CHECK Pre-reas: PHY 2048C. GENERAL BULLETIN **GENERAL BULLETIN** Senior Standing Senior Standing Co/pre-reg. MAC 2313 GENERAL BULLETIN Pre-rea: ENC 1101 MAC 2312 STA XXXX (3) CEG 2202 (3+1) EML 3100 (2) TTE 4XXX(3) Trans. **Liberal Studies** CEG 3011 (3) CEG 4801(3) **Liberal Studies** Liberal Studies Statistics Course ntro to Geomat & Lab Elec OR CCE 4XXX(3) Thermo Dynamics Course (3) Soil Mechanics Geotech Design Course (3) Course (3) Pre-Reg: MAC 2311 Construction Elec Pre-regs: MAC2312, **GROUP D** CHM 1045, PHY 2048 Pre-req: CHECK Co/pre-reg: EGN 3331 Pre-reg: CEG 3011 Pre-reg: CHECK Pre-rea: CHECK Course & lab must be Pre-req: CHECK See approved course GENERAL BULLETIN GENERAL BULLETIN Co/pre-req: CGN3508L GENERAL BULLETIN taken same semester GENERAL BULLETIN list on back page OR EEL 3003 (3) CHM 1045/L (4) MAP 3305 (3) Liberal Studies XXX XXXX (3) PHY2048C OR CHM 1046/L Chem II(4) MAC 2313 (5) CGN 3326 (3) Intro to Electrical Eng General Chem I & Lab Course (3) Eng. Math OR Group B Eng/Math/Sci PHY 2048/L (5) Calculus III CE Graphics & LAB NOT REQUIRED MAP 2302 (3) ODE Physics I & Lab **Design Tools** MCB 2004/L(4) FSU Pre-rea: MAC 1105 Reg. to Declare Major Pre-reg: CHECK Pre-rea: MAC 2312. Pre-reg: MAC 2312 Co-req: CHM 1045L Pre-req: MAC 2313 or See approved course **GENERAL BULLETIN** PHY 2049C Pre-reg: CEG 2202&L MCB 3005C(4) FAMU "B" in MAC 2312 Pre-rea: MAC 2311 list on back page MAC 2311 (4) XXX XXXX (3) EES 3040 (3) XXX XXXX (3) MAC 2312 (4) EGN3613 (2) CWR 3201 (3) CCE 3101 (3) CWR 4XXX (3) Calculus I Science Elective Intro.to Environmental Group C Prof/Tech Calculus II Hydraulics Const. Materials Water Resources Elec Eng. Economy Reg. to Declare Major **GROUP A** Engineering Reg. to Declare Major Pre-rea: CHECK Pre-reg: MAC 2313 Pre-reg: EGM 3512 Pre-reg: EGN 3331 Pre-reg: MAC 1114 & Pre-regs: CHM 1045&L See approved course Pre-reg: MAC 2311 See approved course GENERAL BULLETIN MAC 1140 or 1147 MAC 2311 list on back page list on back page EGN 1004L (1) CGN3508L (1) XXX XXXX (3) TTE 3004 (3) DECLARE YOUR APPLY FOR Group B Eng/Math/Sci First Year Eng. Lab Trans. Eng. CE Materials Lab **MAJOR** GRADUATION Reg. to Declare Maior Go to: ONLINE Pre-reg: STAXXXX, Pre-reg: EGN3331 **Student Services** 2ND WEEK OF Pre-reg: Must be in CEG 2202. Co/pre-req: CCE 3101 See approved course Pre-Eng. Major or CEG 3011 at COE **CEG 2202L** list on back page SEMESTER XXX XXXX (3) CWR 3200L (1) SIGN UP FOR Group B Eng/Math/Sci Env/Hyd Eng Lab FE EXAM \*Capstone senior design sequence must be taken sequentially. In addition: Go to: Co/pre-req: CWR 3201 FBPE.ORG CGN 3326 meets FSU's Digital Literacy requirement See approved course or EES 3040 list on back page • CGN 4800 meets FSU's UDW & SIP requirements CGN 4802 meets FSU's FE (Formative Experience) requirement COMPLETE • CGN 4800 & CGN 4802 together meet FSU's OCC (Oral Communications Competency) req. OPTIONAL: **DEPARTMENT &** \*\*Students who take EML 3100 will complete this coursework with 127 hours. Students CHECK FOR UNIVERSITY INTERNSHIP remain subject to the university-level requirement of 128 credit hours for graduation and **GRAD CHECKS** OPPORTUNITIES

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-reg and advising information.

AT CAREER SERVIES/COE

will need to satisfy remaining credit hour(s) to meet 128 with additional coursework.

Updated: 1/2023

# **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)

# 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)

# **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)