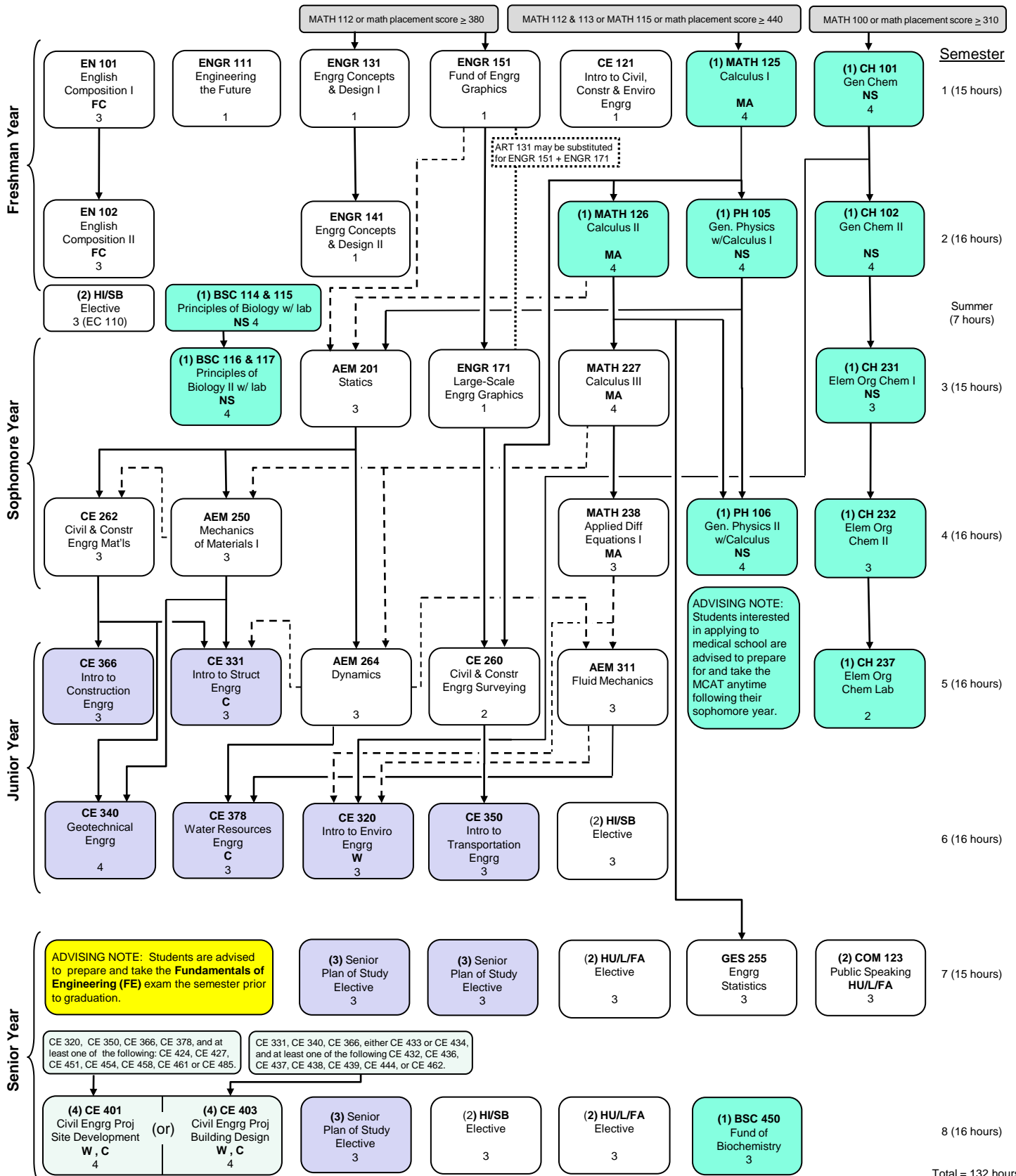


BACHELOR OF SCIENCE IN CIVIL ENGINEERING - PreMed Track (2010)



Note: This is an unofficial flow chart prepared to assist students. Please contact the Department for additional information.

→ Prerequisite (5)
 - - -> Prerequisite with Concurrence (5)
 H/HSB = History/Social & Behavioral Science
 HU/L/FA = Humanities/Literature/Fine Arts
 C = Computer course
 W = Writing course

Notes:

- (1) Required courses for medical school. Students may substitute CH 461 Biochemistry I for BSC 450.
- (2) Requires a minimum of 6 hours from the same discipline. Students are encouraged to consider EC 110 and CE 220 as SB electives and a foreign language as an HU elective. EC 110 is required prerequisite for most business courses and most business minors.
- (3) Senior plan of study electives must include at least two design-designated electives. Students with a 3.0 GPA or higher are encouraged to consider 500-level electives. Students with a 3.3 GPA or higher are encouraged to enroll in the University Scholars Program. See an academic advisor for additional information.
- (4) Students may select, based on interest and completion of the appropriate prerequisites, either CE 401 or CE 403. Students should take CE 401 or CE 403 their last semester prior to graduation.
- (5) A grade of C- or better is required for all CE courses and all courses that serve as a prerequisite or prerequisite with concurrence.

2010 BSCE SENIOR PLAN OF STUDY ELECTIVES (PREMED) AND AVAILABLE MINORS

Rev: 8/5/10

Plan of Study Requirement: You must complete and have approved a Plan of Study for your three senior electives. Your Plan must include at least two design-designated (D) electives with up to one being a general technical (G) courses. See list below.

Course No.	Course Title	Type
CE 411/511	Rock Mechanics	G
CE 422/522	Solid and Hazardous Waste Management	G
CE 423/523	Effects & Fate of Hazardous Chemicals	G
CE 424/524	Water and Wastewater Treatment	D
CE 425/525	Air Pollution Engineering	G
CE 427/527	Storm Water Management	D
CE 432/532	Advanced Structural Analysis I	G
CE 433	Reinforced Concrete Structures I	D
CE 434	Structural Steel Design I	D
CE 436/536	Wood Structural Design	D
CE 437/537	Reinforced Concrete Structures II	D
CE 438/538	Structural Steel Design II	D
CE 439/539	Design of Masonry Structures	D
CE 442/542	Waste Containment Facilities	D
CE 444/544	Foundation Engineering	D
CE 451/551	Geometric Design of Roadways	D
CE 452/552	Traffic Safety/Transp. Security	G
CE 453/553	Intelligent Transportation Systems	G
CE 454/554	Urban Transportation Planning	G

Course No.	Course Title	Type
CE 457/557	Pavement Design & Construction	D
CE 458/558	Traffic Engineering	G
CE 459/559	Pavement Rehabilitation	D
CE 461/561	Horizontal Construction Methods	D
CE 462/562	Vertical Construction Methods	D
CE 464/564	Safety Engineering	G
CE 465/565	Blasting Engineering	G
CE 475/575	Hydrology	D
CE 480/580	Forensic Engineering	D
CE 482/582	Geological Engineering	G
CE 484/584	Experimental Design & Field Sampling	G
CE 485/585	Construction Site Erosion Control	D
CE 491/591	Special Problems	G ¹
CE 498	Undergraduate Research Experience	G ¹
CE 499	Honors Thesis	G ¹
CE 534	Advanced Structural Mechanics	G
CE 570	Open Channel Flow	G
CE 573	Statistical Applications	G

¹ CE 491/591, CE 498, and CE 499 are designated as general technical electives (G) unless approved otherwise.

Prerequisites for CE 401 Civil Engineering Project – Site Development: CE 320, CE 350, CE 366, CE 378, and at least one of the following: CE 424, CE 427, CE 451, CE 454, CE 458, CE 461 or CE 485.

Prerequisites for CE 403 Civil Engineering Project – Building Design: CE 331, CE 340, CE 366, either CE 433 or CE 434, and at least one of the following CE 432, CE 436, CE 437, CE 438, CE 439, CE 444, or CE 462.

Minor in Architectural Engineering: 22 hours. CE 331, CE 366, CE 403, and four approved electives with a minimum of one elective from at least two areas: (A) Structural Engineering and Design – CE 432, CE 433, CE 434, CE 436, CE 437, CE 438, CE 444, CE 439; (B) Building Mechanical/Electrical Systems – ME 309, ME 407, ME 416, ECE 350; (C) Construction Engineering and Management – CE 467, CE 468, CE 417, CE 418.

Minor in Construction Engineering: 18 hours. CE 366, CE 464, CE 461* or CE 462*, CE 463* or CE 468*, and two of the following: CE 414, CE 415, CE 416, CE 417, CE 418, CE 461*, CE 462*, CE 463*, CE 466, CE 468*, CE 480, CE 481, CE 485, GES 401, ME 425, ME 407, ME 416, LGS 408, FI 432; *Students may take both CE 461 and CE 462, and/or both CE 463 and CE 468 to satisfy the requirements of the minor.

Minor in Environmental and Water Resources Engineering: 18 hours. CE 320, CE 378, CE 422, CE 425, and two of the following: CE 220, CE 423, CE 424, CE 427, CE 429, CE 442, CE 475, CE 485, CE 486, CE 519.

Minor in Structural Engineering: 15 hours. CE 331, CE 432, CE 433, CE 434, and one of the following: CE 436, CE 437, CE 438, CE 439, CE 444, CE 534.

Minor in Transportation Engineering: 15 hours. CE 350, CE 458, and three of the following: CE 417, CE 418, CE 451, CE 452, CE 453, CE 454, CE 457, CE 459, CE 481, CE 573, GES 401, GES 585, GY 458, GY 465, GY 466, OM 517, ME 461.

Note: A minimum 2.0 GPA for all courses is required for the above minors.

University Scholars Program: Students with a 3.3 or higher GPA who apply and are admitted to graduate school may take up to three elective courses (9 hours) at the graduate level (500- or 600-level) and have these count towards both their BSCE and MSCE degree. Students must be admitted into the program prior to taking any graduate-level courses. Scholars courses may also be used towards any of the above minors.