

College of Engineering & Computer Science

Civil Engineering

Fall 2017

Name _____

SUID _____

pr= prerequisite, co=corequisite

Minor/Second Major (if any): _____

MATHEMATICS (15)

- MAT295 Calculus 1
- MAT296 Calculus 2 (pr: MAT 295 min C-)
- MAT397 Calculus 3 (pr: MAT 296 min C-)
- MAT485 Diff. Equations & Matrix Algebra (pr: MAT 397)

SCIENCES (16)

- CHE106 General Chemistry I
- CHE107 General Chemistry Lab I (co: CHE 106)
- PHY211 General Physics 1 (co: PHY 221, MAT 295)
- PHY221 General Physics Lab 1 (co: PHY 211)
- PHY212 General Physics 2 (pr: PHY 211, 221, co: PHY 222, MAT 296)
- PHY222 General Physics Lab 2 (co: PHY 212)

Select one of the following two courses:

- EAR110 Dynamic Earth (4)
- EAR203 Earth System Science (4)

WRITING SKILLS (9)

- WRT105 Studio 1: Practices of Academic Writing
- WRT205 Studio 2: Critical Research and Writing (pr: WRT 105)
- WRT307 Adv Writing Studio: Professional Writing (pr: WRT 205)

SOCIAL SCIENCE /HUMANITIES (18)

(See curriculum notes)

- SSH Elective _____
- SSH Elective _____
- SSH Elective _____
- SSH Elective _____
- SSH Elective _____
- SSH Elective _____

ENGINEERING (19/20)

- ECS101 Intro. to Engr. & Comp. Sci.
 - ECS221 Statics (pr: PHY 211, co: MAT 296)
 - ECS222 Dynamics (3) (pr:ECS 221, MAT 296)
 - ECS325 Mechanics of Solids (pr: ECS 221, co: MAT 397)
 - CIE/ECS 326 Engineering Materials
- Select One of the Following 2 Courses:
- CIE442 Treatment Proc. In Envir. Engr (pr: CIE 327 or MAE 341, CIE 341)
 - CIE463 Intro to Sustainable Engr

CIVIL ENGINEERING (44)

- CIE273 Intro to Geomatics and BIM (pr: MAT 295)
- CIE274 Sustainability in Civil & Env. Systems (pr: CHE 106, MAT 296)
- CIE327/MAE341 Fluid Mechanics (pr: MAT 397, ECS 221)
- CIE329 Prob, Stats and Risk for Civ & Env Engr (pr: MAT 485 or MAT 331)
- CIE331 Analysis of Structures and Materials (pr: ECS 325)
- CIE332 Design of Concrete Structures (pr: CIE 331)
- CIE337 Intro to Geotechnical Engineering (pr: ECS 325)
- CIE338 Foundation Engineering (pr: CIE 337)
- CIE341 Intro to Environmental Engr. (pr: CIE 274)
- CIE352 Water Resources Engr. (pr: CIE 327 or MAE 341)
- CIE401 Construction Engineering & Project Management
- CIE443 Transportation Engineering
- CIE475 Capstone Design

ELECTIVES (6)

- Free Elective _____
- Tech Elective _____

TOTAL CREDITS

CREDIT GRADE	FIRST-YEAR		SOPHOMORE		JUNIOR		SENIOR		VAR +/-
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CIVIL ENGINEERING Curriculum Notes 2017-2018

SS/HUM ELECTIVES

All CIE students are required to complete at least 18 credits of SS/HUM electives. A *minimum* of one course (or 3 credits) must be chosen from each of the three groups of designated courses listed below. The remaining three SS/HUM electives (or 9 credits) can be selected from the lists below or, in addition to the lists, may be chosen from:

- any College of Arts and Sciences courses that are listed on their Humanities and Social Sciences lists in the SU Bulletin – Undergraduate Course Catalog / Liberal Arts Core
- any foreign language courses (except student's native language)
- ECS 391 – Legal Aspects of ECS
- ECS 392 – Ethical Aspects of ECS.

Group 1: Economics and Social Issues
ECN 203 – Economics Ideas and Issues
ECN 301* – Intermediate Microeconomics
ECN 302* – Intermediate Macroeconomics
ECN 365* – The World Economy
GEO 353 – Geographies of Environmental Justice
SOC 101 – Introduction to Sociology
SOC 102 – Social Problems
SOC 363 – Urban Sociology
STS/BPS 101 – Introduction to Science, Technology and Society

Group 2: Global Affairs
*ECN 365 – The World Economy
GEO 103 – Environment and Society
GEO 105 – World Urban Geography
GEO 272 – World Cultures
GEO 273 – World Political Economy
MAX 123 – Critical Issues for the U.S.
MAX 132 – Global Community
PAF 351 – Global Social Problems
PSC 124 – International Relations
PSC 355 – International Political Economy

* requires ECN203 as prerequisite

Group 3: Public Policy and Policy Studies
ECN/WGS 358 – Economics of US Poverty & Discrimination
GEO 203 – Society and the Politics of Nature
GEO 314 – Hazardous Geographic Environments
GEO 356 – Environmental Ideas & Policy
PAF 101 – An Introduction to the Analysis of Public Policy
PAF 409+ – Intermediate Analysis of Public Policy
PAF 451 – Environmental Policy
PSC 302- Environmental Politics and Policy
PSC 305 – US Congressional Politics
PSC 308 – The Politics of US Public Policy
PSC 312 – Urban Government & Politics
PSC 318 – Technology, Politics & Environment

+ requires PAF101 as prerequisite

Technical Electives

Technical Electives MUST be CIE courses numbered 300 and above. They are to be selected in consultation with a student's advisor to advance the student's knowledge in a specific area of interest in civil or environmental engineering.

Free Electives

Any SU or ESF three or four credit course except Academic Excellence Workshops, Physical Education and remedial courses.