

Construction Engineering
COURSE MATRIX 2024-2025 Catalog

Infrastructure Option
127 Credits

Prerequisites in Red
Co-requisites in Blue

SAMPLE

1 Fall	1 Spring	2 Fall	2 Spring	3 Fall	3 Spring	4 Fall	4 Spring
CONE 1210 (1) Learning Community: Academic Life	CONE 1220 (1) Learning Community: Professional Life	CONE 2220 (3) Contractor Org & Mgmt of Construction Completion of Basic Program	CONE 2410 (3) Construction Materials & Methods Completion of Basic Program	CONE 3220 (3) Const Equip & Heavy Const Methods Fall Only CONE 2220, CONE 2410 or CE 3060	CONE 3400 (3) Concrete & Steel Construction CONE 2220 or CE 3060 EM 3240	CONE 4220 (3) Construction Cost Estimating & Engr CONE 2410, CONE 2510	CONE 4870 (3) Construction Engineering Design I CONE 3400, CONE 3520, CONE 3530, CONE 4220, CONE 4410
CE 1600 (3) Engineering Problems w/ Computational Lab MATH 1650	CE 1700 (2) Graphics for Civil Engineering MATH 1430	CE 1110 (3) Geomatics CE 1600, CE 1700, MATH 1650	CONE 2510 (1) M/E Materials & Methods CONE 2410	Law Elective (3) CONE 3800 Jr Status ACCT 2150 Soph Status	CE 3820 (3) Design of Concretes CE 2740	CONE 4410 (3) Constr Planning, Scheduling, & Control CONE 4220	CONE 4880 (3) Construction Engineering Design II CONE 3400, CONE 3520, CONE 3530, CONE 4220, CONE 4410
MATH 1650 (4) Calculus I C- or higher in MATH 1430 or placement on ALEKS	MATH 1660 (4) Calculus II C- or higher in MATH 1650	MATH or STAT (3) Elective MATH 2650 (4) C- in MATH 1660 MATH 2070 (3) MATH 1660 STAT 5870 (4) STAT course	MATH 2670 (4) Elem Differential Equations w/ Laplace C- or higher in MATH 1660	Engineering (3) Statistics STAT 2310 (4) Math 2650 STAT 3050 (3) Math 1650	CE 3600 (4) Geotechnical Engineering EM 3240 CONE 2410	Engineering (3) Topics Elective	Engineering (3) Topics Elective
CHEM 1670 (4) Gen Chem for Engineers 1 yr HS CHEM and MATH 1400 or HS equivalent	PHYS 2310/2310L (5) Intro to Classical Physics I MATH 1650 MATH 1660	PHYS 2320/2320L (5) Intro to Classical Physics II PHYS 2310/2310L, MATH 1660	CE 2740 (3) Engineering Statics PHYS 2310/2310L MATH 1660	EM 3240 (3) Mechanics of Materials CE 2740	CE 3320 (3) Structural Analysis I EM 3240	CE 3330 (3) Structural Steel Design I CE 3320, EM 3270	CE 3340 (3) Reinforced Concrete Design I CE 3320, EM 3270
ENGL 1500 Critical (3) Thinking & Communication	ENGL 2500 (3) Written, Oral, Visual, and Electronic Comm ENGL 150 or exemption LIB 1600	ECON 1010 or (3) ECON 1020	IE 3050 (3) Engineering Economic Analysis MATH 1660	ABE 3780 (3) Mechanics of Fluids CE 2740	EM 3270 (1) Mechanics of Materials Lab EM 3240	International (3) Perspectives Elective	Business Comm (3) Elective ENGL 3020/3090/3140 ENGL 2500, Jr Status
ENGR 1010 (R) Engineering Orientation	LIB 1600 (1) Intro to College Level Research			SSH Elective (3)	US Cultures & (3) Communities Elective		
(15)	(16)	(17)	(14)	(18)	(17)	(15)	(15)

Core Courses	SSH Electives	Engineering Topics Electives	Notes
<p>Core classes require a MINIMUM cumulative 2.0 GPA</p> <p>CONE 2410 (3) CE 2740 (3) EM 3240 (3) ABE 3780 (3) CE 3320 (3) CONE 4220 (3) CONE 4410 (3) CONE 4870 (3) CONE 4880 (3)</p>	<p>Recommended by CONE Program</p> <p>ANTHR 2100 (3) PHIL 2300 (3) ANTHR 2200 (3) PHIL 2350 (3) ANTHR 2300 (3) PHIL 3340 (3) HIST 2800 (3) PHIL 3430 (3) HIST 2840 (3) PSYCH 1010 (3) INTST 2350 (3) PSYCH 2300 (3) LDST 3220 (3) PSYCH 2800 (3) MGMT 3700 (3) SOC 1340 (3) MGMT 3710 (3)</p> <p>For more options, refer to the LAS SSH lists</p>	<p>6 credits required for Infrastructure Emphasis</p> <p>Recommended by CONE Program</p> <p>CONE 4900 (1-3) CE 4480 (3) CE 3550 (3) CE 4510 (3) CE 3720 (3) CE 4530 (3) CE 3880 (3) CE 4600 (3) CE 4170 (3) CE 4890 (3) CE 4460 (3) GEOL 2010 (3)</p> <p>Other approved courses: Any CE 3000-, 4000-, and 5000-level course (except CE 5940A and CE 5990)</p>	<p>1. ENGL courses require a minimum grade of C</p> <p>2. The university requires a grade of C or better for <u>any</u> transfer credit course that is applied to the degree program</p> <p>3. Courses may appear on multiple elective lists but may only be applied for ONE elective.</p> <p>Basic Program Courses Infrastructure Emphasis-Specific Courses</p>