

**Construction Engineering**  
**COURSE MATRIX 2024-2025 Catalog**

**Mechanical 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 3520 (3) Mechanical Systems in Buildings  CONE 2220, CONE 2510, PHYS 2320/2320L	Law Elective (3)  CONE 3800 Jr Status ACCT 2150 Soph Status	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	CONE 3530 (3) Electrical Systems in Buildings  PHYS 2320/2320L CONE 3520	EE 4420 (2) Intro to Circuits & Instruments  MATH 2670, PHYS 2320/2320L	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	EE 4480 (2) Intro to AC Circuits & Motors  EE 4420	ME 4360 (4) Heat Transfer  ME 3350 or ABE 3780	ME 4420 (3) Heating & Air Conditioning Design <b>Spring Only</b>  ME 4410, ME 4360
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	ME 4410 (3) Fundamentals of HVAC <b>Fall Only</b>  ME 3320 or (ME 2310 and CONE 3520)	Business Comm (3) Elective  ENGL 3020/3090/3140 ENGL 2500, Jr Status
ENGL 1500 (3) Critical 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	ME 2310 (3) Thermodynamics  MATH 1660, CHEM 1670, PHYS 2310/2310L	ABE 3780 (3) Mechanics of Fluids  CE 2740	Engineering (3) Topics Elective	International (3) Perspectives Elective
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)	(16)	(16)	(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) CE 3320 (3) ABE 3780 (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>3 credits required for Mechanical Emphasis</p> <p>Recommended by CONE Program</p> <p>CE 5010 (3) CE 5020 (3) CE 5030 (3) CE 5050 (3) CE 594L (3)</p> <p>Other approved courses:</p> <p>Any ME 3000- or 4000-level course 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><b>Basic Program Courses</b> <b>Mechanical Emphasis-Specific Courses</b></p>