

Degree Program Worksheet

PREPARATORY & GENERAL EDUCATION COURSES

Mathematics 24 cr

- ◆ MATH 124 Calc/Analytic Geom I (5)
- ◆ MATH 125 Calc/Analytic Geom II (5)
- ◆ MATH 126 Calc/Analytic Geom III (5)
- MATH 307 Differential Equations (3)
- ◆ MATH 308 or 318 Matrix Algebra (3)
- Statistics: IND E 315* (3) (preferred)
or STAT 390 (4) or 300-level or higher math. (See note below in Engineering Fundamental)*

Physics 15 cr

- ◆ PHYS 121 Mechanics (5)
- ◆ PHYS 122 Elect-Mag & Osc (5)
- PHYS 123 Waves (5)

Chemistry 10 cr

- ◆ CHEM 142 General Chemistry (5)
- CHEM 152 General Chemistry (5)

Engineering Fundamentals 19 cr

- ◆ AMATH 301 Beg Scientific Computing (4) or
CSE 142 Computer Programming I (4)
- ◆ AA 210 Statics (4)
- ◆ CEE 220 Mechanics of Materials (4)
- ◆ ME 230 Kinematics & Dynamics (4)
- One course from: *ME 123, MSE 170, EE 215, IND E 250, CHEM E 260, IND E 280 and IND E 315*.* (Students who take IND E 315 may apply any non-statistics, 300-level MATH course, except MATH 354 and 355, towards the mathematics requirement.)

Written Communication 12 cr

- ◆ English Composition (5)
- TC 231 Intro to Technical Writing (3)
- CEE 363 (W) (4) *Satisfied by major coursework*

Economics CEE topic requirement

- ECON 200 or 201 (5) or IND E 250 (4)

I&S 10 cr

*I&S electives selected from University list.
ECON 200 counts towards above and as I&S.*

VLPA 10 cr

VLPA electives selected from University list.

Additional VLPA or I&S 4 cr

◆ Indicates prerequisite courses required for admission to the major.

COURSES WITHIN THE CEE MAJOR

The CEE program covers six areas of focus: **construction, transportation, geotechnical, structural, water, and environmental** engineering. First-year majors (CEE “juniors”) enroll in required 300-level courses as preset, options: Track I or II. (See back for more information.) The CEE “senior” or second year allows students flexibility to complete core technical requirements, explore areas of their own interest, and engage in a capstone design course of their choice.

CEE “Junior” (1st year) Courses 45 cr

- CEE 306 Construction Engr I (3)
- CEE 316 Surveying (4)
- CEE 320 Transportation Engr (3)
- CEE 342 Fluid Mechanics (4)
- CEE 345 Hydraulic Engr (4)
- CEE 350 Environmental Engr I (4)
- CEE 363 Construction Materials (4)
- CEE 366 Basic Soil Mechanics (4)
- CEE 379 Elem. Structures I (4)
- CEE 380 Elem Structures II (4)
- CEE 390 CE Systems (3)
- CEE 391 Autocad (3)
- CEE 392 MatLab (1)

CEE “Senior”(2nd year) Courses:

Professional Practice and Capstone 6 cr

- CEE 440 Professional Practice (2)
- Capstone Design Course (4)
- Choice of CEE 441, 442, 444 or 445*

Technical Electives 15 cr

Students must take at least one course from four of the six different area selected from the “Core Courses” list (List A), plus any additional CEE 400-level course, excluding CEE 423, not used elsewhere.

Upper-Division Engineering and Science 9 cr

Choice of additional CEE 400-level courses (excluding CEE 423) and courses from an approved list of courses outside the department. See Upper-Division course list (List B, available on CE Web site).

General Electives

(to bring the balance of credits up to the minimum 180 credits required for a bachelor’s degree.)

Note: See back for additional information.

Civil & Environmental Engineering

SAMPLE 4-YEAR PLAN:

Sample Freshman Year

Autumn		Winter		Spring	
MATH 124	5	MATH 125	5	MATH 126	5
CHEM 142	5	CHEM 152	5	PHYS 121	5
ENGL Comp	5	VLPA/IS	5	Computing	4
		CEE 100	1	VLPA/IS	2
Total	15	Total	16	Total	16

Sample Sophomore Year

Autumn		Winter		Spring	
MATH 307	3	MATH 308	3	IND E 315	3
PHY 122	5	PHYS 123	5	Engr Fund	4
AA 210	4	CEE 220	4	ME 230	4
ECON 200	5	TC 231	3	VLPA/IS	5
		VLPA/IS	2		
Total	17	Total	17	Total	16

Sample CEE Junior Year (Students take Track I or II)

Autumn		Winter		Spring	
<i>Track I</i>					
CEE 306	3	CEE 342	4	CEE 345	4
CEE 316	4	CEE 379	4	CEE 350	4
CEE 320	3	CEE 390	3	CEE 366	4
CEE 363 W	4	CEE 391	3	CEE 380	4
CEE 392	1				
Total	15	Total	14	Total	16
<i>Track II</i>					
CEE 306	3	CEE 345	4	CEE 320	3
CEE 316	4	CEE 350	4	CEE 363 W	4
CEE 342	4	CEE 366	4	CEE 390	3
CEE 379	4	CEE 380	4	CEE 391	3
CEE 392	1				
Total	16	Total	16	Total	13

Sample CEE Senior Year

Autumn		Winter		Spring	
CEE 440	2	Capstone (<i>Winter or Spring, 4 cr</i>)			
Tech Elec	3	Tech Elec	3	Tech Elec	3
Tech Elec	3	UD Elec	3	Tech Elec	3
VLPA/IS	2	VLPA/IS	2	UD Elec	3
UD Elec	3	<i>Additional credits as desired or needed</i>			

Notes:

- For VLPA and I&S, see UW Areas of Knowledge on Web
- IND E 315 may be counted as either a Math class or Engineering Fundamental, but not both.
- AMATH 351 and 352 may be substituted in place of MATH 307 and 308.
- UD Elec = CEE Upper Division Science & Engr Electives
- Tech Elec = CEE Technical Electives

ADMISSIONS:

The CEE program admits students once a year for autumn quarter only. Please see the CEE Web site for detailed application information and to submit the online form. Under special circumstances, students may apply for conditional admissions pending completion of one or two prerequisite courses.

Transfer students must also submit a timely UW admissions application. See UW Admissions information for more information. *Transfer students seeking course substitutions should be prepared to present a course description and syllabus.*

RESOURCES:

CEE Student Resources

www.ce.washington.edu/resources/students/course_info/students.html

Engineering Advising and Diversity Center

<http://www.engr.washington.edu/eadc/>

UW Admissions

www.admit.washington.edu

UW Course Equivalencies for WA St Comm Colleges

www.washington.edu/students/uga/tr/planning/ceequivguide/

UW Course Catalog

www.washington.edu/students/crscat/

UW Time Schedule

www.washington.edu/students/timeschd/

UW Academic Calendar

www.washington.edu/students/reg/calendar.html

TECHNICAL ELECTIVES: CORE COURSES (LIST A)

Construction Core

- CEE 404 Infrastructure Constr (4)
- CEE 421 Pavement Design (3)
- CEE 425 Reinforced Concrete Constr (3)

Transportation Core

- CEE 410 Traffic Engr Fundamentals (3)
- CEE 412 Trans Data Mgmt (3)
- CEE 416 Urb Trans Planning Design (3)

Geotechnical Core

- CEE 436 Foundation Design (3)
- CEE 437 Engineering Geology (3)

Structural core

- CEE 451 Design of Metal Structures (3)
- CEE 452 Design Reinf Concrete Structures (3)
- CEE 453 Prestressed Concrete Design (3)
- CEE 454 Design Timber Structures (3)
- CEE 455 Struc Unit Masonry (3)
- CEE 457 Advanced Struc I (3)

Water Core

- CEE 474 Hydraulics of Sediment Transp (3)
- CEE 476 Physical Hydrology (3)
- CEE 477 Open-Channel Engr (3)

Environmental Core

- CEE 481 Hydraulic Design for Env'l Engr (3)
- CEE 482 Wastewater Treatmt & Reuse (3)
- CEE 483 Drinking Water Treatment (3)
- CEE 490 Air-Pollution Control (4)