

**Civil & Environmental Engineering
Non-Thesis Master's Program Plan (2016)
Structural Engineering and Mechanics**


To do:

- Meet with your faculty advisor and have your program plan approved.
- Turn in your approved Program Plan to the Graduate Advising Office, 201 More Hall, by the end of your 1st quarter.
- Update your Program Plan as needed, obtaining approval by your faculty advisor and turn it into the Advising Office.

Name:		
Student #:		
Qtr/Year Admitted:		
Faculty Advisor:		
	<i>Signature</i>	<i>Date</i>
Student:		
Faculty Advisor:		

Course Plan

Audit

Fill in the section below with planned courses to meet degree requirements.				Check the column below indicating which degree requirement the course fulfills.				
Course #	Course Title	Qtr/Year (e.g. Aut16)	CR		Required structures courses	12 credits 500-level structures courses	15 credits approved electives	Seminar (3 CR total)
								
Total CR								
Required		42			12 CR	12 CR	15 CR	3 CR

Civil & Environmental Engineering
Non-Thesis Master's Program Plan (2016)
Structural Engineering and Mechanics

Degree Requirements

Credit Requirements:

39 credits of course work
3 credits of CEE 500 Structures Seminar
42 Credits Total

Required Coursework:

- CEE 501 Structural Mechanics, 6 CR (AUT)
- CEE 502 Structural Dynamics, 3 CR (WIN)

One of the following (both are strongly recommended) - if both are taken, 1 can count toward 12 credits of SEM Electives):

- CEE 504 Finite Element Methods in Structural Mechanics, 3 CR (SPR)
- CEE 599 Advanced Structures I, 3 CR (WIN) (Note: The CEE 457 section of this class does not count)

- 12 credits of 500-level structures courses from the list of Structural Engineering and Mechanics (SEM) Electives (page 3)

- 3 credits of CEE 500 Structures Seminar
 - Autumn: Student presentations
 - Winter: Seminars on professional practice
 - Spring: Research seminars and discussion1 credit of CEE 500 Department Seminar may substitute for 1 credit of CEE 500 Structures Seminar
- 15 credits of additional coursework to be fulfilled as follows:
 - Any 500-level structural engineering and mechanics (SEM) course
 - Any courses from CEE Electives list on page 3
 - Any AA, ME, MSE, AMATH courses listed on pages 3 - 4
 - One ARCH or CM course listed on page 4 (more than one is allowed only with prior approval by faculty advisor and the SEM graduate advisor)

Additional Requirements:

- Minimum 3 credits outside structures (can be CEE)
- All CEE courses (except seminars) taken for a numeric grade (others may be S/NS)
- Maximum 3 credits of CEE 600
- Maximum 6 credits of *approved* transfer credits
- 3.0 minimum cumulative GPA in all structures courses
- 3.0 minimum cumulative GPA
- 2.7 minimum grade for a class to count
- 499 credits do not count toward a graduate degree
- Classes 300-level or below do not count toward a graduate degree

Civil & Environmental Engineering
Non-Thesis Master's Program Plan (2016)
Structural Engineering and Mechanics

ELECTIVES

The following course offerings are subject to change. For CEE course offerings, please refer to the CEE Projected Course Offerings 2015-2016, and the Preliminary Time Schedule which can be found on the CEE Department website at: <http://www.ce.washington.edu/students/timeschedule.html>. Refer to the UW Time Schedule when it becomes available for up-to-date information.

For courses outside the CEE Department, refer to the UW Time Schedule or the offering department for course offering details.

500-level Structural Engineering and Mechanics (SEM)

- | | |
|---|--|
| <input type="checkbox"/> CEE 503 Materials Modeling, 3 CR (SUM) | <input type="checkbox"/> CEE 516 Earthquake Engineering II, 3 CR (AUT) |
| <input type="checkbox"/> CEE 505 Engineering Computing, 3 CR (AUT) | <input type="checkbox"/> CEE 517 Wind Engineering Design, 3 CR (SUM) |
| <input type="checkbox"/> CEE 506 Nonlinear Analysis of Structural Sys, 3 CR (SPR) | <input type="checkbox"/> CEE 518 Reliability and Design, 3 CR (AUT) |
| <input type="checkbox"/> CEE 507 Structural Stability, 3 CR (WIN) | <input type="checkbox"/> CEE 599 Advanced Steel II, 3 CR (SUM) |
| <input type="checkbox"/> CEE 511 Advanced Reinforced Concrete, 3 CR (AUT) | <input type="checkbox"/> CEE 599 Prestressed Concrete Design, 3 CR (WIN) |
| <input type="checkbox"/> CEE 512 Advanced Structural Systems, 3 CR (SPR) | <input type="checkbox"/> CEE 599 Advanced Structures I, 3 CR (WIN) |
| <input type="checkbox"/> CEE 513 Advanced Steel I, 3 CR (WIN) | CEE 599 Math Foundation of Continuum Mech, 3 CR
(not offered 2016-2017) |
| <input type="checkbox"/> CEE 515 Earthquake Engineering I, 3 CR (SPR) | |

To meet the requirement of 15 credits of additional coursework, students may take courses from the SEM list above, or from the following list of approved electives (including CEE, AA, ME, MSE and AMATH).

CEE Electives

- | | |
|---|--|
| <input type="checkbox"/> CEE 404 Infrastructure Const, 3 CR (WIN) | <input type="checkbox"/> CEE 599 Geotechnical Earthquake Eng, 4 CR (SPR) |
| <input type="checkbox"/> CEE 588 Energy and the Environment, 3 CR (AUT) | |

College of Engineering Electives

- | | |
|---|---|
| <input type="checkbox"/> AA 532 Mechanics of Composite Materials, 3CR | <input type="checkbox"/> ME 556 Experimental Stress Analysis I, 3 CR |
| <input type="checkbox"/> AA 538 Intro to Structural Optimization, 3 CR | <input type="checkbox"/> ME 557 Experimental Stress Analysis II, 3 CR |
| <input type="checkbox"/> AA 543 Computational Fluid Dynamics, 3 CR | <input type="checkbox"/> ME 559 Introduction to Fracture Mechanics, 3 CR |
| <input type="checkbox"/> ME 415 Sustainability and Design for the Environ, 3 CR | <input type="checkbox"/> ME 564, 565 Mechanical Eng Analysis I, II, 3CR |
| <input type="checkbox"/> ME 515 Life Cycle Assessment, 3 CR | <input type="checkbox"/> MSE 431 Failure Anal and Durability of Matls, 3 CR |
| <input type="checkbox"/> ME 541 Fatigue of Materials, 3 CR | <input type="checkbox"/> MSE 462 Mechanical Behavior of Materials II, 4 CR |
| <input type="checkbox"/> ME 551, 552 Elasticity I, II, 3 CR | <input type="checkbox"/> MSE 475 Introduction to Composite Materials, 4CR |

Civil & Environmental Engineering
Non-Thesis Master's Program Plan (2016)
Structural Engineering and Mechanics

ELECTIVES (continued)

College of Arts and Sciences Electives

- | | |
|---|---|
| <input type="checkbox"/> AMATH 503 Methods for Partial Diff Equations, 5 CR | <input type="checkbox"/> AMATH 569 Adv. Methods for Partial Diff .Equations, 5 CR |
| <input type="checkbox"/> AMATH 506 Applied Probability Statistics, 4 CR | <input type="checkbox"/> AMATH 572 Intro to Applied Stochastic Analysis, 5 CR |
| <input type="checkbox"/> AMATH 515 Fundamentals of Optimization, 5 CR | <input type="checkbox"/> AMATH 581, 582, 583 Sci Computing, 5 CR |
| <input type="checkbox"/> AMATH 516 Numerical Optimization, 3 CR | <input type="checkbox"/> AMATH 584 Introductory Numerical Analysis, 5 CR |
| <input type="checkbox"/> AMATH 567 Applied Complex Analysis, 5 CR | <input type="checkbox"/> AMATH 585 Numeric Analysis of Boundary Value, 5 CR |
| <input type="checkbox"/> AMATH 568, Adv. Methods for Ordinary Diff. Equations, 5 CR | <input type="checkbox"/> AMATH 586 Num Analysis of Time Depend Prob, 5 CR |

To meet the requirement of 15 credits of additional coursework, students may take one elective from the list below. More than one course is allowed only with prior approval by their faculty advisor and the SEM graduate advisor.

College of the Built Environment Electives

- | | |
|--|---|
| <input type="checkbox"/> ARCH 521 Structural Planning and Design, 3 CR | <input type="checkbox"/> CM 505 Advanced Integrated Computer Applications, 3 CR |
| <input type="checkbox"/> ARCH 537 Traditional Bldg Methods: New Adapt, 3 CR | <input type="checkbox"/> CM 510 Advanced Construction Technique, 3 CR |
| <input type="checkbox"/> ARCH 538 Building Reuse Seminar, 3 CR | <input type="checkbox"/> CM 515 Innovative Project Mang Concepts, 3 CR |
| <input type="checkbox"/> ARCH 578 Case Studies in Contemporary Arch 3 CR | <input type="checkbox"/> CM 530 Project Economics and Risk Analysis, 3 CR |
| <input type="checkbox"/> CM 404 (ARCH 404) Integrated Des/Bld Studio, 6 CR | <input type="checkbox"/> CM 540 Sustainable Construction, 3 CR |
| <input type="checkbox"/> CM 450 Construction Project Management, 3 CR | <input type="checkbox"/> CM 560 Design-Building Project Management, 3 CR |
| <input type="checkbox"/> CM 500 (ARCH 574) Design and Construction Law, 3 CR | <input type="checkbox"/> CM 580 Temporary Structures, 3 CR |

Graduation Quarter Checklist

- | |
|--|
| <input type="checkbox"/> Review Graduate School Dates and Deadlines: http://grad.uw.edu/for-students-and-post-docs/dates-and-deadlines/ |
| <input type="checkbox"/> Submit the online Master's Degree Request at: http://www.grad.washington.edu/mygrad/student.htm by posted deadline. |
| <input type="checkbox"/> Update your Program Plan if needed and submit to the Graduate Advising Office. |
| <input type="checkbox"/> Submit signed Master's Degree Warrant to Graduate Advising Office by Wednesday the last day of the quarter. |
| <input type="checkbox"/> Prior to leaving the department, <i>submit online CEE Final Checkout form and CEE Exit Survey:</i>
http://www.ce.washington.edu/students/masters.html |
| <input type="checkbox"/> Allow 3-4 months for your diploma to arrive. Update your mailing address in MyUW if necessary. |