

2024 - 2025 Curriculum Requirements for the MS SDC Degree

- denotes limited class enrollment \$ - CEE 222A and CEE 222B must be taken as a pair

AREA	Autumn		Winter		Spring		CONCENTRATION REQUIREMENTS						
	Class	Units	Class	Units	Class	Units	Management	Structures	Energy	SUS			
Design and Development	241A	Infrastructure Project Development	2	222A	Computer Integrated AEC Global Teamwork \$	2,3	222B	Computer Integrated AEC Global Teamwork \$	3	4	3	5	12
	243	Intro to Urban Systems Engineering	3	241B	Infrastructure Project Delivery	3	241C	Global Infrastructure Projects Seminar	1,2				
				245E	Equitable Infrastructure Solutions	3	342	Designing for Gradient Spaces	3				
				321	Design and Operation of Infrastructure Systems	3							
Structures	203	Probabilistic Models in CEE	3,4	223	Materials for Sustainable Built Environments	3	287	Earthquake Resistant Design and Construction	3,4	12	12	12	12
	280	Advanced Structural Analysis	3,4	282	Nonlinear Structural Analysis	3,4	290	Structural Performance and Failures	2				
	285A	Advanced Structural Concrete Behavior and Design	3,4	283	Structural Dynamics	3,4	297M	Managing Critical Infrastructure	2				
				285B	Advanced Structural Steel Behavior and Design	3,4							
				293	Foundations and Earth Structures	2,3							
Energy	176A	Energy Efficient Buildings	3,4	256	Building Systems Design & Analysis	3,4	176B	100% Clean, Renewable Energy and Storage	3,4	4	3	12	6
	226	Life Cycle Assessment for Complex Systems	3,4				226E	Decarbonized and Energy Efficient Building Design	2,3				
Construction	240	Construction Project Assessment and Budgeting	2,3	102A	Legal Principles in Design, Construction, Delivery	3	242	Organization Design for Projects	3,4	12	5	5	5
	241	Managing Fabrication and Construction	4	241B	Infrastructure Project Delivery	3	324	Industrialized Construction	2,3				
				341	Virtual Design and Construction	3	327	Construction Robotics	3				
Industry	258	Watson Seminar	1	246	Venture Creation for the Real Economy	3,4	240C	Management of Construction Enterprises	3	6	3	4	3
	244	Accounting, Finance & Valuation (SUMMER QUARTER ONLY)	3	298	Structural Engineering and Mechanics Seminar	1	241C	Global Infrastructure Projects Seminar	1,2				
Skills	251	Negotiation #	3	220B	Advanced Building Modeling Workshop	2,3,4	220C	Parametric Design and Optimization	2,3,4	4	4	4	4
				247C	Computer Vision for the Built Environment	3	329	AI Applications in AEC	3				
Total										30	30	30	30

Other Degree Requirements	<p>1) A concentration is required for all students. All SDC students must take CEE226, 241, 258 and ENGR202C/W or 203 at Stanford. 2) CS106A and CEE146S are also required unless taken at another institution with a grade of B- or better. 3) See below for additional concentration-specific course requirements. 4) Required classes and approved electives must total at least 45 units. PE and Language courses do not count towards the 45 units. 5) Program proposal must be approved by the student's advisor. 6) All courses must be at or above 100 level, at least 30 units at or above 200 level.</p>	<p>7) Comply with the CEE Graduate Student Handbook. 8) CEE courses must be taken for a letter grade when available. Maximum of 6 CR/NC units otherwise. 9) Credit for classes listed in multiple areas may be split between those areas (no double counting). 10) Minimum GPA of 3.0 (or 2.75 for students admitted prior to Winter 2023). 11) Maximum of 5 total units of seminars.</p>
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Additional Requirements:

Italicized prerequisite courses listed below are required but do not have to be taken at Stanford if taken elsewhere with a letter grade of B- or better.

Bold courses are required to be taken at Stanford.

Management	Structures	Energy	SUS
<i>CEE101C</i>	<i>CEE101C</i>	At least 2 of	CEE243
<i>CEE182</i>	<i>CEE180</i>	the following:	
<i>CEE244</i>	<i>CEE182</i>	CEE226E	
CEE241C	CEE285A	CEE256	
	CEE285B	CEE272R	
	CEE298		

Additional electives available (not a comprehensive list):

CEE202	CEE246P
CEE202F	CEE248
CEE213	CEE250
CEE214	CEE252
CEE216	CEE272T
CEE220A	CEE288
CEE221	CEE322
CEE227	CEE323A
CEE242R	CEE323D
CEE246B	CEE327S
CEE246S	CEE330
CEE246D	CEE330B