

## STRUCTURAL ENGINEERING COURSE PREREQUISITES:

**ALL COURSES MUST BE TAKEN FOR A LETTER GRADE**

REQUIRED COURSES	
CHEM 6A	See UCSD General Catalog
MATH 20A	See UCSD General Catalog
MATH 20B	See UCSD General Catalog
MATH 20C	See UCSD General Catalog
MATH 20D	Math 20C
MATH 18 (formerly Math 20F)	Math 3C or Math 4C or Math 10A or Math 20A
MATH 20E	Math 20C and Math 18
PHYS 2A	Math 20A concurrent with Math 20B
PHYS 2B	Phys 2A, Math 20A-B, concurrent with Math 20C
PHYS 2BL	Phys 2A, concurrent with Phys 2B
PHYS 2C	Phys 2A, 2B, Math 20A-C, concurrent with Math 20D
PHYS 2CL	Phys 2A and Phys 2B, concurrent with Phys 2C
SE 1 Introduction to Structures and Design	SE Major
SE 3 Graphical Communication for Eng. Design	N/A
SE 9 Algorithms and Processing	Math 20A and Math 20B
SE 101A Mechanics I: Statics	Math 20C and Phys 2A
SE 101B Mechanics II: Dynamics	SE 101A
SE 101C Mechanics III: Structural Dynamics	Math 18 and SE 101B
SE 102 Intro to Computing for Engineers	SE 9 and SE 101A
SE 105 Structural Materials	SE 1 and SE 101A Coreq: SE 110A
SE 110A Solid Mechanics I	Math 20D and SE 101A
SE 110B Solid Mechanics II	SE 110A

<b>REQUIRED COURSES</b>	
SE 115 Fluid Mechanics	Phys 2A and Math 20D
SE 125 Statistics, Probability, and Reliability	Math 20D and Math 18
SE 130A Structural Analysis I	SE 110A
SE 130B Structural Analysis II	SE 130A and Math 18
SE 131A Finite Element Analysis	Math 20E, SE 3, and SE 110B Coreq: SE 130B
SE 131B Computing Projects in SE	SE 131A, SE 101C, and SE 130B
SE 140A Design of Civil Structures I	SE 130B and SE 150A
SE 140B Design of Civil Structures II	SE 140A, SE 151A, and SE 181
SE 143A Aerospace Structural Design I	SE 3, SE 142, and SE 160B
SE 143B Aerospace Structural Design II	SE 143A
<b>FOCUS SEQUENCE AND TECHNICAL ELECTIVE COURSES</b>	
SE 103 Conceptual Structural Design	SE 3, SE 9, SE 101A, and SE 105
SE 132 Machine Learning for Structural Engineering	SE 9, SE 110A, and SE 125
SE 142 Design of Composite Structures	SE 110A and SE 110B
SE 150A Design of Steel Structures	SE 110B and SE 130A
SE 150B Design of Steel Structures II	SE 150A
SE 151A Design of Reinforced Concrete	SE 130A Coreq: SE 103
SE 151B Design of Prestressed Concrete	SE 151A
SE 154 Timber Design	SE 103 and SE 130A
SE 160A Aerospace Structural Design	SE 105, SE 101B, and SE 110A
SE 160B Aerospace Structural Design	SE 160A
SE 163 Nondestructive Evaluation and Design	SE 110A
SE 164 Sensors & Data Acquisition for SE	SE 101C and SE 110A
SE 165 Structural Health Monitoring	SE 101C
SE 167 Signal Processing & Spectral Analysis for	SE 101C

REQUIRED COURSES	
SE	
SE 168 Struct. System Testing and Model Correlation	SE 101C and SE 131A (or SE 131)
SE 171 Aerospace Structures Repair	SE 110A and SE 110B
SE 180 Earthquake Engineering	SE 110A and SE 130A
SE 181 Geotechnical Engineering	SE 110A
SE 182 Foundation Engineering	SE 181
SE 184 Ground Improvement	SE 181

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