

M.S.

Materials Courses

Core

CEE 401 Concrete Materials
CEE 405 Asphalt Materials I

Advanced

CEE 501 Materials Characterization
CEE 502 Advanced Concrete Chemistry
CEE 503 Deterioration of Construction Materials
CEE 504 Infrastructure NDT
CEE 598IR Repair of Civil Infrastructure
CEE 598FF Fracture of Plain and Fiber Concrete
CEE 598THM Theory of Heterogeneous Materials
CEE598CB Concrete at Multi-scale

Elective

Metals

MSE 441 Metals Processing
MSE 442 Metals Laboratory
MSE 443 Design of Engineering Alloys

Polymers

MSE 450 Intro to Polymer Sci and Eng
MSE 452 Polymer Laboratory
MSE 453 Plastics Engineering
TAM 427 Mechanics of Polymers

Soils

CEE 483 Soil Mechanics and Behavior
NRES 487 Soil Chemistry

Mechanics

CEE 470 Structural Analysis
CEE 471 Structural Mechanics
CEE 575 Fracture and Fatigue
CEE 570 Finite Element Methods
ME 430 Failure of Engrg Materials
ME 532 Fracture Resistant Design
MSE 440 Adv Mechanical Prop of Solids
MSE 540 Advanced Mechanical Behavior
TAM 424 Mechanics of Structural Metals
TAM 428 Mechanics of Composites

TAM 451 Intermediate Solid Mechanics
TAM 456 Experimental Stress Analysis
TAM 524 Micromechanics of Materials
TAM 525 Advanced Composite Materials
TAM 551 Solid Mechanics, I
TAM 552 Solid Mechanics, II
TAM 555 Fracture Mechanics

Durability

MSE 445 Corrosion of Metals

Testing

CEE 498KUC Exprmentl Meth in Stru & Mat

Design

CEE 406 Pavement Design, I
CEE 462 Steel Structures, II
CEE463 Reinforced Concrete, II
CEE 467 Masonry Structures
CEE 468 Prestressed Concrete
CEE 469 Wood Structures
CEE 506 Pavement Design, II
CEE 560 Steel Structures, III
CEE 561 Reinforced Concrete, III
CEE 563 Reinforced Concrete, IV

Others

GEOL 432 Mineralogy and Mineral Optics
GEOL 436 Petrology and Petrography
GEOL 440 Sedimentology and Stratigraphy
MSE 401 Thermodynamics of Materials
MSE 402 Kinetic Processes in Materials
MSE 405 Microstructure Characterization
MSE 406 Thermal-Mech Behavior of Matls
MSE 420 Ceramic Matls and Properties
MSE 480 Surfaces and Colloids
MSE 481 Electron Microscopy & Diffract
MSE 486 Selection of Eng Matls
MSE 489 Matl Select for Sustainability

Notes and Comments

(Include descriptions of transfer courses and justification of deviations from the pre-approved course list).

Review Comments

(This section is reserved for comments by the faculty advisor or by the Construction Materials faculty).