

CIVIL ENGINEERING ELECTIVES
Spring 2017

CEE ELECTIVES

CEE 422 01 **Design & Construction Project Management** (J. Klanac)
F 1:25- 4:25 PM

CEE 502 01 **Prestressed Concrete** (J. Saliba)
MW 5:05- 6:20 PM

CEE 515 01 **Pavement Engineering** (D. Eustace)
MW 5:05-6:20 PM

CEE 526 01 **Retaining Structures & Slopes** (O. Bilgin)
TR 5:05-6:20 PM

CEE 533 01 **Theory of Elasticity** (T. Whitney)
TR 3:35-4:50 PM

CEE 562 01 **Phys & Chem Wastewater** (K. Crosson)
TR 3:35-4:50 PM

CEE 595 02 **Soil Improvement** (R. Liang)
TR 3:35-4:50 PM

CEE 595 03 **Advanced Reinforced Concrete** (E. Toubia)
TR 3:35-4:50 PM

EGM ELECTIVES

EGM 533 01

Theory of Elasticity (T. Whitney)
TR 3:35-4:50 PM

NOTE: SOME 300 LEVEL MATH, SCIENCE AND NON-CEE ENGINEERING COURSES ARE ACCEPTABLE AS TECHNICAL ELECTIVES WITH CHAIR'S APPROVAL.

Revised 10-31-16

LISTED BELOW ARE ACCEPTABLE CIVIL AND TECHNICAL ELECTIVES BY SPECIALTY AREA:

Highlighted electives available Spring 2017

Civil Electives	Prerequisites Required for Civil Elective	Technical Electives	Prerequisites for Technical Elective
CEE 421 Construction Engineering		ASI 320: Cities and Energy	
CEE 422 Design and Construction Project Mgt		BIO 395: Global Environmental Policy	
CEE 463 Hazardous Waste Engineering		BIO 409: Ecological Restoration	
CEE 500 Advanced Structural Analysis	CEE 317 Analysis of Structures II	BIO 444: Plant Diversity	
CEE 501 Structural Analysis by Computer	CEE 317 Analysis of Structures II	BIO 459: Environmental Ecology	
CEE 502 Prestressed Concrete	CEE 412 Design of Concrete Structures	CHM 313: Organic Chemistry I	
CEE 503 Intro to Continuum Mechanics	EGM 303 Mechanics II	CHM 314: Organic Chemistry II	
CEE 504 Structural Dynamics	EGM 303 Mechanics II CEE 317 Analysis of Structures II	CHM 341: Environmental Chemistry	
CEE 505 Plastic Design of Steel	CEE 411 Design of Steel Structures	CME 490: Intro to Bioengineering	
CEE 507 Masonry Design	CEE 317 Analysis of Structures II	CME 575: Fundamentals of Air Pollution Engr. II	
CEE 508 Design of Timber Structures	CEE 317 Analysis of Structures II	ECO 300: Principles of Economics	
CEE 511 Experimental Stress Analysis	EGM 303 Mechanics II	ECO 346: Intermediate Microeconomics Ana	
CEE 515 Pavement Design		ECO 347: Intermediate Macroeconomics Ana	
CEE 520 Advanced Geotechnical Engr.	CEE 312 Geotechnical Engineering	ECO 445: Public Finance	
CEE 522 Subsurface Investigations	CEE 312 Geotechnical Engineering	ECO 471: Labor Economics	
CEE 524 Foundation Design	CEE 312 Geotechnical Engineering	ECO 485: Urban and Regional Economics	
CEE 526 Retaining Structures and Slopes	CEE 312 Geotechnical Engineering	EGM 503: Intro to Continuum Mechanics	
CEE 528 Soil Dynamics and Earthquake Engineering	CEE 312 Geotechnical Engineering	EGM 504: Fundamentals of Fluid Mechanics	
CEE 533 Theory of Elasticity	EGM 303 Mechanics II Co-Req-CEE 503 Intro to Cont Mech	EGM 519: Analytic Dynamics	
CEE 534 Theory of Plates and Shells	CEE 533 Theory of Elasticity	EGM 531: Theory of Linear Viscoelasticity	
CEE 535 Advanced Mechanical Vibrations	MEE 319 Mechanical Vibrations	EGM 533: Theory of Elasticity	
CEE 539 Theory of Plasticity	CEE 503 or CEE 533	EGM 534: Theory of Plates and Shells	
CEE 540 Composite Design	EGM 303 Mechanics II	EGM 536: Random Vibrations	
CEE 541 Exp Mechanics of Composite Materials	EGM 303 Mechanics II	EGM 540: Composite Design	
CEE 543 Anl Mechanics of Composite Materials	EGM 303 Mechanics II	EGM 541: Exp. Mechanics of Composite Mat'ls	
CEE 544 Mechanics of Composite Structures	CEE 543Anl Mech of Comp Mat	EGM 543: Anl Mechanics of Composite Materials	
CEE 546 Finite Element Analysis I	CEE 503 or CEE 533	EGM 546: Finite Element Analysis I	
CEE 550 Highway Geometric Design	CEE 403 Transportation Engineering	EGM 547: Finite Element Analysis II	
CEE 551 Traffic Engineering	CEE 403 Transportation Engineering	EGM 549: Theory of Elastic Stability	
		EGM 552: Boundary Layer Theory	
CEE 552 Intelligent Transportation Systems	CEE 403 Transportation Engineering	EGR 330: Engineering Design & Appropriate Technology	
CEE 553 Travel Demand Modeling	CEE 403 Transportation Engineering		
CEE 554 Urban Public Transportation	CEE 403 Transportation Engineering	ENM 505: Management of Engr Systems I	
CEE 555 Highway Traffic Safety	CEE 403 Transportation Engineering	ENM 506: Management of Engineer Systems II	
CEE 558 Traffic Engineering Research	CEE 403 Transportation Engineering	ENM 517: Legal Aspects - Engineering	

Civil Electives	Prerequisites Required for Civil Elective	Technical Electives	Prerequisites for Technical Elective
CEE 560 Wastewater Engineering		ENM 521: Operations Research I	
CEE 562 Phys. & Chem. Water Wastewater Trtmnt Proc		ENM 522: Operations Research II	
CEE 563 Hazardous Waste Engineering		ENM 523: Optimization I	
CEE 564 Solid Waste Engineering		ENM 530: Cost & Economic Analysis for Engineers	
CEE 580 Hydrology and Seepage	CEE 312 Geotechnical Engineering CEE 313 Hydraulics	FIN 301: Intro to Financial Management	
CEE 582 Advanced Hydraulics	CEE 313 Hydraulics CEE 333 Water Resources Engineering	GEO 301: Structural Geology	
CEE 584 Open Channel Flow	CEE 312 Geotech Engineering CEE 313 Hydraulics	GEO 302: Glacial Geology	
CEE 595 LEED Building Design	Instructors Approval Required	GEO 303: Field Geology	
CEE 595 Water & Waste Water Engineering		GEO 307: Geomorphology	
CEE 595-02 Soil Improvement		GEO 450: Applied GIS	
CEE 595-03 Adv Reinforced Concrete Design		MEE 319: Mechanical Vibrations	
		MEE 473: Renewable Energy Systems	
EGM Electives		MEE 595: Design for Waste Minimization	
EGM 503-01 Intro to Continuum Mechanics		MGT 301: Organizational Behavior	
EGM 533 Theory of Elasticity		MGT 350: Managerial Skills	
		MSC 500: Probabilistic Methods I	
		MSC 501: Probabilistic Methods II	
		MSC 572: System Simulation	
		MTH 310: Linear Algebra and Matrices	
		MTH 367: Statistical Methods I	
		MTH 368: Statistical Methods II	
		MTH 411: Probability and Statistics I	
		MTH 412: Probability and Statistics II	
		MTH 413: Probability and Statistics III	
		MTH 465: Linear Algebra	
		MTH 519: -520 Statistical Inference	
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		MTH 543: Linear Models	
		SEE 401: Research in Environmental Sustainability	
		SEE 402: Sustainability Research II	