

Core Courses

Course	Title	Semester Hours
CIV 530	Advanced Pavement Analysis and Design	3
CIV 531	Traffic Engineering	3
CIV 532	Pavement Materials and Design	3
CIV 540	Advanced Structural Analysis	3
CIV 541	Structural Dynamics	3
CIV 542	Advanced Design of Concrete Structures	3
CIV 550	Engineering Hydrology	3
CIV 551	Advanced Fluid Mechanics	3
CIV 652	Hydraulic Engineering Design	3
CIV 672	Advanced Geomechanics	3
CIV 673	Advanced Foundation Engineering	3
CIV 674	Soil Dynamics	3

Elective Courses

CIV 520 Advanced Engineering Analysis I. (3 Hours)
CIV 521 Advanced Engineering Analysis II. (3 Hours)
CIV 533 Evaluation, Maintenance, & Rehabilitation of Public Works Infrastructure (3 Hours)
CIV 534 Urban Transportation Engineering System Design (3 Hours)
CIV 535 Pavement Design (3 Hours)
CIV 536 Highway Engineering (3 Hours)
CIV 543 Advanced Mechanics of Materials (3 Hours)
CIV 544 Advanced Design of Steel Structures (3 Hours)
CIV 545 Design of Wood and Masonry Structures (3 Hours)
CIV 552 GIS Applications in Civil and Environmental Engineering (3 Hours)
CIV 553 Experimental Methods in Civil Engineering (3 Hours)
CIV 554 Water Resources Engineering Planning and Management (3 Hours)
CIV 556 Groundwater Engineering (3 Hours)
CIV 557 Computational Fluid Dynamics (3 Hours)
CIV 558 Sedimentation and River Engineering (3 Hours)
CIV 559 Environmental Hydraulics (3 Hours)
CIV 562 Hazardous Waste Engineering (3 Hours)
CIV 564 Surface Water (3 Hours)
CIV 565 Wetland Management for Environmental Engineering (3 Hours)
CIV 567 Environmental Remediation (3 Hours)
CIV 568 Land Disposal of Waste (3 Hours)
CIV 571 Principles of Geoenvironmental Engineering (3 Hours)
CIV 572 Applied Geotechnical Engineering Design (3 Hours)
CIV 578 Applied Geophysics (3 Hours)
CIV 631 Linear Theory of Ocean Waves. (3 Hours)
CIVL 631 Linear Theory of Ocean Waves' Laboratory. (1 Hour)

CIV 632 Tides and Long Waves. (3 Hours)
CIV 633 Airport Planning and Design (3 Hours)
CIV 640 Finite Element Method (3 Hours)
CIV 642 Prestressed Concrete Design (3 Hours)
CIV 645 Plates and Shells (3 Hours)
CIV 650 Small Watershed Hydrology (3 Hours)
CIV 653 Advanced Design of Hydraulic Structures (3 Hours)
CIV 654 Water Resources Systems Engineering (3 Hours)
CIV 655 Stochastic Hydrology (3 Hours)
CIV 659 Advanced Topics in Water Resources Engineering (Variable 1-4 Hours)
CIV 663 Design of Environmental Engineering Facilities (3 Hours)
CIV 670 Rock Mechanics (3 Hours)
CIV 675 Earth Dams and Slopes (3 Hours)
CIV 676 Tunneling (3 Hours)
CIV 677 Design and Construction with Geosynthetics (3 Hours)
CIV 678 Soil Bioengineering (3 Hours)
CIV 679 Advanced Topics in Geotechnical Engineering (Variable 1-4)
CIV 695 Scientific Writing Seminar (1 Hour)
CIV 696 Seminar (1 Hour)
CIV 697 Internship (Variable 1-3 Hours)
CIV 698 Independent Study (Variable 1-4 Hours)
CIV 699 Thesis Research (Variable 1-6 Hours)