Wadsworth Department of Civil and Environmental Engineering

Degrees Offered

- Bachelor of Science in Civil Engineering (B.S.C.E.)
- Bachelor of Science in Environmental Engineering (B.S.)

Nature of the Programs

The CEE Department offers undergraduate degrees in civil engineering and environmental engineering. The environmental program will focus on developing engineering skills and understanding the principles of sustainability and applying them to problems related to air and water quality, treatment of anthropogenic waste streams, management of water resources, and environmental health. Civil engineering historically encompassed all engineering endeavors needed to provide the infrastructure for society to function. Because of its origin and history, civil engineering still embraces a wide variety of technological areas. In the Wadsworth Department of Civil and Environmental Engineering, these areas include:

- Construction
- Environmental and Water Resources
- Geotechnical
- Structures
- Transportation

FACULTY

CHAIR

- Lian-Shin Lin - Ph.D. (Purdue University)
  Physicochemical and biological treatment, Innovative wastewater technologies, Emerging contaminants, sustainable development, Watershed pollution

PROFESSORS

- Hung-Liang (Roger) Chen - Ph.D. (Northwestern University)
  Structural dynamics, Structural experimentation, Dynamic soil-structure interaction, Damage in reinforced concrete structures, Nondestructive evaluation, Concrete
- Hota GangaRao - Ph.D. (North Carolina State University)
  Maurice A. and Jo Ann Wadsworth Distinguished Professor, Director, Constructed Facilities Center. Director, NSF Center for Integration of Composites into Infrastructure, Mathematical modeling of engineering systems, Bridge engineering, Composite material characterization and implementation
- Lian-Shin Lin - Ph.D. (Purdue University)
  Physicochemical and biological treatment, Innovative wastewater technologies, Emerging contaminants, sustainable development, Watershed pollution
- David R. Martinelli - Ph.D. (University of Maryland)
  Transportation engineering, Traffic operations, Systems analysis, Infrastructure management
- Radhey Sharma - Ph.D. (Oxford)
  Sustainable infrastructure, Geotechnical engineering & geoenvironmental , Energy engineering

ASSOCIATE PROFESSORS

- Omar I. Abdul-Aziz - Ph.D. (University of Minnesota, Twin Cities)
  Ecological-Water Resources Engineering; Scaling of Hydro-Ecological and Biochemical Variables;Modeling of Stream Water Quality and Ecosystem Carbon; Fluid Mechanics; Hydrology.
- Karl Barth - Ph.D. (Purdue University)
  Steel structures; Bridge design and rehabilitation; Connections; Stability analysis; Experimental mechanics
- Fei Dai - Ph.D. (Hong Kong Polytechnic University)
  Constructions Engineering, Construction Management, Construction Information Technologies
- Leslie Clark Hopkinson - Ph.D. (Virginia Polytechnic Institute and State University)
  Surface hydrology, Environmental hydraulics, Ecological engineering, River mechanics
- John D. Quaranta - Ph.D. (West Virginia University)

Geotechnical/geoenvironmental engineering, Soil testing and characterization, Soil and mine waste dewatering, Geosynthetics, Soil and groundwater remediation

- P.V. Vijay - Ph.D. (West Virginia University)
  Concrete Structures; Composite Structures for Bridges, Buildings, and Pavements; Aging of Structures and Rehabilitation; Recycled Polymers for Infrastructure
- Yoojung Yoon - Ph.D. (Purdue University)
  Infrastructure Asset Management, Risk Management in Construction, Project Management and Control, Construction Equipment Management

ASSISTANT PROFESSORS

- Onur Avci - Ph.D.(Virginia Tech)
  Structural Engineering, Structural steel, Structural dynamics, Structural health monitoring, Structural damage detection. Machine Learning (ML) and Deep Learning (DL) applications in structural engineering. Blast protection of engineering structures, multi-functional materials.
- James Bryce - Ph.D. (Virginia Tech)
  Asphalt technology, pavement sustainability, pavement preservation, civil engineering materials, benefit-cost analysis, life cycle costing, and decision analysis.
- Emily Garner - Ph.D. (Virginia Polytechnic Institute and State University)
  Environmental Engineering and Microbiology, Wastewater reuse and sustainable water treatment, Microbial ecology, Application of molecular tools and next generation sequencing technologies, Drinking water
- Kevin Orner - Ph.D. (University of South Florida)
  Environmental Engineering, Wastewater Treatment, Resource Recovery, Water Quality, Engineering Education, Sustainable Development Engineering
- Dimitra Pyrialakou - Ph.D. (Purdue University)
  Transportation Engineering, Transportation Planning and Evaluation, Public and Rail Transportation, Airport Operations, Transportation Econometrics

RESEARCH ASSISTANT PROFESSORS

- Rufieng Liang - Ph.D. (Chinese Academy of Sciences Institute of Chemistry)
  Fiber Reinforced Polymer Composites, Engineering Plastics, Green Materials, Sustainable Infrastructure

PROFESSORS EMERITUS

- Ronald W. Eck - Ph.D. (Clemson University)
- Udaya B. Halabe - Ph.D. (Massachusetts Institute of Technology)
  Nondestructive evaluation and in-situ condition assessment of structures and materials, Elastic and electromagnetic (radar) wave propagation, Structural analysis and design, Structural dynamics and wind/earthquake resistant design
- W. Joseph Head - Ph.D. (Purdue University)
- Larry D. Luttrell - Ph.D. (Cornell University)
- William A. Sack - Ph.D. (Michigan State University)
- Hema J. Siriwardane - Ph.D. (Virginia Polytechnic Institute and State University)
  Geomechanics/geotechnical engineering, Finite element method, Computer applications
- John P. Zaniewski - Ph.D. (University of Texas)

ASSOCIATE PROFESSORS EMERITUS

- Robert N. Eli - Ph.D. (University of Iowa)
- Darrell R. Dean Jr. - Ph.D. (Purdue University)

For specific information on the following programs please see the links to the right:

- Civil Engineering, B.S.C.E.
- Dual Degree CE/MINE
- Environmental Engineering, B.S