ENVIRONMENTAL ENGINEERING (ENVENG)

ENVENG 3340 Environmental Engineering 4 Credits
Water, air and soil chemistry; toxicity and risk; watershed analysis; mass balance analysis; groundwater hydrology; water and wastewater treatment; surface water quality; solid and hazardous waste management; air pollution control.
Components: Class, Laboratory
Prereqs/Coreqs: P a ‘C-' or better in (CHEMISTRY 1450 or CHEMISTRY 1240) and (( CIVILENG 2000, CIVILENG 2220, and CIVILENG 2630) or COMPUTER 1830))

ENVENG 3950 Environmental Engineering Cooperative Education 3 Credits
Work experience under the direction of the College of Engineering, Mathematics and Science Cooperative Education and Internship Program. During co-op the student is expected to be away from his/her studies at UW-Platteville and work for an industry for a semester and summer.
Components: Field Studies
Prereqs/Coreqs: P Department consent

ENVENG 4300 Hydrology 3 Credits
Hydrologic cycle and data collection; rainfall-runoff relationships, and models; statistical analysis of streamflow and precipitation measurements; runoff estimation using Rational, TR55, and USGS Regression methods and computer models; hydrograph analysis; detention pond and outlet structure design; culvert design and analysis; water surface profile analysis using HEC-RAS.
Components: Class, Laboratory
Prereqs/Coreqs: P a ‘C-' or better in CIVILENG 3300 and ENVENG 3340

ENVENG 4310 Groundwater Hydrology 3 Credits
Components: Class, Laboratory
Prereqs/Coreqs: P ENVENG 3340 and (CIVILENG 3740 or SCSCI 2230 or GEOLOGY 3130) with a grade of C- or better

ENVENG 4330 Air and Waste Management 3 Credits
Components: Laboratory, Class
Prereqs/Coreqs: P a ‘C-' or better in ENVENG 3340

ENVENG 4400 Municipal Hydraulics 3 Credits
Population estimates, municipal water and wastewater quantities and requirements; design and analysis of municipal water distribution systems, storage reservoirs, and pumping stations; design of stormwater and wastewater collection systems. Municipal open channel flow applications.
Components: Class
Prereqs/Coreqs: P a ‘C-' or better in CIVILENG 3300 and ENVENG 3340

ENVENG 4410 Wastewater Treatment and Management 3 Credits
Determination of sewage flowrates; wastewater characteristics; design and operation of resource recovery (wastewater treatment) facilities; advanced wastewater treatment and effluent disposal; nutrient removal; emerging contaminants; biosolids processing and management; anaerobic digestion for bioenergy generation.
Components: Class
Prereqs/Coreqs: P a ‘C-' or better in ENVENG 3340; C: CIVILENG 3300

ENVENG 4420 Water Supply and Treatment 3 Credits
Components: Class
Prereqs/Coreqs: P a ‘C-' or better in ENVENG 3340

ENVENG 4940 Undergraduate Research 1-3 Credits
Introduction to research methods in environmental engineering, literature review, data analysis, and design. A written report will be submitted to the sponsoring faculty member.
Components: Research
Prereqs/Coreqs: P CIVILENG 2000 and permission of department chair