Courses

AEST A601 Aquatic Process Chemistry 3 Credits
An introduction to fundamental aquatic chemistry concepts frequently encountered in environmental science and engineering. An equilibrium approach with an emphasis on treatment process and natural water chemistry is employed. Both a qualitative and quantitative understanding of equilibrium calculations and the ability to apply both graphical and algebraic/numerical solution techniques to chemistry problems.

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

AEST A602 Water Quality Management 3 Credits
An assessment of the rationale, concepts, institutions, and engineering aspects of water quality management. Regulatory processes, monitoring strategies and statistics, flow and mixing characteristics, pollutant chemistry, assessment strategies, point and nonpoint source characteristics, the Total Maximum Daily Load (TMDL) process, and mitigation measures are covered.

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

AEST A603 Solid Waste Management 3 Credits
Planning, collecting and disposing of solid waste; techniques of collection, transportation, disposal and resource recovery; solid waste environmental regulations and relationships to water, air, and land pollution; hazardous waste management.

Registration Restrictions: Registrants must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval.

AEST A604 Environmental Law, Regulations and Permitting 3 Credits
Introductory graduate level course on understanding and navigating environmental laws and regulations. Students will learn the principles of the major environmental laws in the U.S., practice interpreting regulations, and prepare permits.

Registration Restrictions: Bachelor of Science degree in a science or engineering discipline.

AEST A605 National Environmental Policy Act 3 Credits
Examines the National Environmental Policy Act (NEPA) requirements, including process, roles and responsibilities of involved parties, impact analysis, alternative development, stakeholder involvement and environmental conflict resolution. Subject matter experts from State and Federal agencies, industry, environmental nongovernmental organizations and utilities will provide their perspectives on NEPA.

Registration Restrictions: Bachelor of Science degree in a science or engineering discipline.