

# Applied Environ Sci & Tech (AEST)

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## 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:** Graduate standing and admission to the AEST, CE, or BIOL graduate programs, or 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:** Graduate standing and 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:** Graduate standing and Bachelor of Science degree in a science or engineering discipline

### **AEST A606 Clean Water Act 3 Credits**

Examines the Clean Water Act and its impact on the environment. The course will explore the history of the Act, and various programs established by the Act, including the Section 404 wetlands program and the National Pollutant Discharge Elimination System (NPDES) pollution control program. Subject matter experts from State and Federal agencies, industry, environmental nongovernmental organizations and utilities will provide their perspectives on the Clean Water Act and its effectiveness.

**Registration Restrictions:** Graduate standing and Bachelor of Science degree in a science or engineering discipline

### **AEST A607 Environmental Permitting Project 3 Credits**

Explores the complex relationship between environmental regulatory and permitting requirements and their application to engineering and science projects.

**Registration Restrictions:** Graduate standing and admission to Applied Environmental Science and Technology graduate program

**Prerequisites:** AEST A604 with a minimum grade of B and AEST A605 with a minimum grade of B and AEST A606 with a minimum grade of B.

### **AEST A698 Individual Research 1-6 Credits**

A course to be designed between the student and faculty member to allow the student the chance to pursue special advanced interests in engineering at the graduate level.

**Registration Restrictions:** Graduate standing and must be enrolled in the AEST, CE, or BIOL graduate programs, or gain instructor approval

### **AEST A699 AEST Thesis 1-6 Credits**

Arranged between the advisor and the student. Generally the student has been admitted to candidacy for the master's degree and a thesis committee is formed. The student must take an oral exam defending the thesis.

**Registration Restrictions:** Graduate standing and must be enrolled in the AEST graduate program