

C **LEMSON ONLINE WATER AND
WASTEWATER ENGINEERING
COURSES FOR WORKING
PROFESSIONALS**
EES 4010
EES 4020/6020
EES 4850/6850

Please see below the Clemson announcement of the Summer 2018 online offerings of Environmental Engineering and Science courses. The syllabi of these three credit hour courses are available upon request.

- EES 4010 Environmental Engineering. Introduction to the field of environmental engineering. Topics include environmental phenomena, impact of pollutants in the aquatic environment, solid-waste management, air pollution control, radiological health, and simple water and wastewater treatment systems.
- EES 4020/6020 Water and Waste Treatment Systems. Study of the fundamental principles, rational design considerations and operational procedures of the unit operations and processes employed in water and waste treatment. Both physiochemical and biological treatment techniques are discussed. Introduces the integration of unit operations and processes into water and waste treatment systems.
- EES 4850/6850 Hazardous Waste Management. Introduction to the problems, regulations, treatment and ultimate disposal of hazardous and toxic materials. Spill cleanup, groundwater transport, land disposal, incineration, and treatment technologies are discussed.

The 6000 series courses are graduate level courses with additional requirements over those of the 4000 series undergraduate course.

These courses provide online and summer time scheduling flexibility and the opportunity to take technical elective courses in Environmental Engineering to Clemson students (traditional and coop) as well as students from other colleges and universities. These courses are also expected to be of interest to established

environmental practitioners (engineers, chemists, biologists, and others) who can, for the first time, take these interesting courses while working full time. Professional Engineers and others can earn 45 PDHs by completing these courses.

Many employers will want to encourage certain employees to take these courses by fully or partially funding their participation.

EES 4010 will be taught during the first summer session (May 15-June 22). EES 4020/6020 and 4850/6850 will be taught during the long term Summer Session (May 15-August 7). All course activities will be conducted online and will be available 24/7. Homework and exams will be submitted online. Weekly day time and evening online office hours will be offered in addition to 24 hour turnaround on email questions. There is no laboratory work associated with these courses. EES 4010 is the normal pre- / co-requisite course for EES 4020 and 4850. This requirement can be waived for qualified working professionals with instructor permission.

There are simplified application procedures for two types of students. Transient students are those attending another college or university. The latest date to submit an application as a transient student is May 11, 2018. Persons who have already earned an undergraduate degree may enroll in up to 12 credit hours without application to the graduate school as “special students.” The latest date to submit an application as a special student is May 11, 2018.

For additional information please contact:

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ONLINE SUMMER COURSE: EES 4010

Environmental Engineering 3 (3)

Catalog Description: Introduction to the field of environmental engineering. Topics include environmental phenomena, impact of pollutants in the aquatic environment, solid-waste management, air pollution control, radiological health, and simple water and wastewater treatment systems.

When: First summer session, May 15 to June 22, 2018

Prerequisites: A course in Fluid Mechanics (CE 3410 or CHE 2300 or ME 3080) or a course in Groundwater and Contaminant Transport (GEOL 4820); **and** a course in mathematics at the level of either GEOL 4150 or MATH 2060.

Background: EES 4010 is taught during the Fall and Spring semesters, as well as on-line during the summer. The content for the on-line version is similar to the Fall and Spring course.

Instructors: The instructor will be Dr. Kevin T. Finneran. Dr. Finneran has 21 years of research experience in environmental engineering and environmental microbiology. He is also the owner and Principal of Finneran Environmental, LLC, a specialty remediation consulting firm.

Please bring this summer course offering to the attention of your advisees.



ONLINE SUMMER COURSE: EES 4020/6020

Water and Waste Treatment Systems 3 (3)

Catalog Description: Study of the fundamental principles, rational design considerations, and operational procedures of the unit operations and processes employed in water and waste treatment. Both physiochemical and biological treatment techniques are discussed. Introduces the integration of unit operations and processes into water and waste treatment systems.

When: Long summer session, May 15 to August 7, 2018

Prerequisite: EES 2020 or EES 4010 (also offered on-line, during the first summer session).

Background: EES 4020/6020 has typically been taught during the Spring semester. An on-line version was first offered during the summer of 2017. The content will be similar to the regular Spring semester course.

Instructor: The instructor will be Dr. William Hiatt (wchiatt@clemson.edu), an Adjunct Professor of Practice in Environmental Engineering and Earth Sciences (EEES). He has extensive industrial experience with AKZO-Nobel and BASF Corporation spanning engineering, research and environmental management roles. Dr. Hiatt also has considerable consulting experience.

This course provides a good foundation for understanding boiler feed water, ion exchange, RO and ultrapure water applications that would be of interest to ChE, Civil, ME and other disciplines. Please bring this summer course offering to the attention of your advisees.



ONLINE SUMMER COURSE: EES 4850/6850

Hazardous Waste Management 3 (3)

Catalog Description: Introduction to the problems, regulations, treatment and ultimate disposal of hazardous and toxic materials. Spill cleanup, groundwater transport, land disposal, incineration, and treatment technologies are discussed.

When: Long summer session, May 15 to August 7, 2018

Prerequisite: EES 2020 or EES 4010 (also offered online, during the first summer session).

Background: EES 4850/6850 has typically been taught during the Spring semester. An on-line version will be offered during the Summer 2018 session. The coverage will be similar to the regular Spring semester course.

Instructors: The instructors will be Dr. William Hiatt (wchiatt@clemson.edu). Dr. Hiatt is an Adjunct Professor of Practice in Environmental Engineering and Earth Sciences (EEES). He has extensive industrial experience with AKZO-Nobel and BASF Corporation spanning Engineering, Research and Environmental Management roles. Dr. Hiatt also has considerable consulting experience.

Please bring this new summer course offering to the attention of your advisees.

