

Environmental Engineering (ENEG)

W. Micah Hale
 Department Head of Civil Engineering
 4190 Bell Engineering Center
 479-575-4954
 Email: micah@uark.edu

Julian Fairey
 Coordinator of Environmental
 Engineering Studies
 4190 Bell Engineering Center
 479-575-4954
 Email: julianf@uark.edu

Environmental Engineering Website (<https://civil-engineering.uark.edu/academics/msene.php>)

Degree Conferred:

M.S.En.E. in Environmental Engineering (ENEG)

Program Description: The Master of Science in Environmental Engineering is a multidiscipline degree program designed for students from a multitude of academic areas. The objectives of the M.S.En.E. program are to prepare graduates for careers in environmental engineering practice with government agencies, engineering firms, or industries and to provide a foundation for continued study at the post-masters level.

Primary Areas of Faculty Research: Water treatment and distribution; waste-water collection and treatment; soil and groundwater remediation; surface and ground water quality; environmental and hydrologic modeling; animal waste management; non-point source pollution prevention; watershed management; reactor design and biomass energy; energy systems including heat transfer; thermodynamics and liquid-vapor phase change; bacterial tracers for evaluating movement through fractured subsurface strata.

M.S.En.E. in Environmental Engineering

Admission Criteria: In addition to the requirements of the Graduate School, the following are the minimum criteria for admission to the M.S.En.E. degree program:

- GPA: 3.00 or higher
- GRE Scores: No less than 302 (verbal and quantitative) and 3.5 analytical writing

Degree Requirements:

Thesis Option: A minimum of 30 semester hours of graduate-level credits, 24 semester hours of graded course work and a minimum of six semester hours of thesis.

Course Work Only Option: 30 semester hours of graded graduate-level course credits.

Both Options:

1. Upon admission to the Graduate School and acceptance in a program of study, candidates pursuing a thesis-based program will be assigned an adviser, who will assist the candidate with course

selection and with finding a major adviser. The major adviser and the candidate will select a graduate committee. The candidate and major adviser, with guidance from the graduate committee, will develop a plan of study and a research project for completion of the requirements for the degree. The graduate committee will serve as the examination committee for the research, the thesis, and the final oral and/or written examination. Candidates pursuing a coursework-based program will be assigned to a major adviser, who will assist the candidate in selection of a graduate committee, developing a plan of study; and coordination of the final oral and/or written examination.

2. No more than six graduate credit hours presented for the M.S.En.E. degree may be 4000-level.
3. Required courses listed below.

CVEG 5203 Water Chemistry

CVEG 5213 Advanced Water Treatment Design

CVEG 5224 Advanced Wastewater Treatment Design

CVEG 5233 Microbiology for Environmental Engineers

CVEG 5273 Open Channel Flow

4. Candidates for the degree must present a cumulative grade point average of 3.00 on all graduate courses. The minimum acceptable grade for any course is "C".

5. A comprehensive examination that will include either a defense of the candidate's thesis or a presentation and discussion of the candidate's course work.

6. Students should also be aware of Graduate School requirements with regard to master's degrees (<https://catalog.uark.edu/graduatecatalog/degree requirements/#mastersdegreestext>).

7. Students should be aware that most or all of the courses in this program have prerequisite requirements. Students will be required to meet these prerequisite requirements or obtain instructor permission to enroll.

Graduate Faculty

Beitle, Robert R., Ph.D., M.S.Ch.E., B.S.Ch.E. (University of Pittsburgh), Professor, Ralph E. Martin Department of Chemical Engineering, 1993, 2006.

Clausen, Ed, Ph.D., M.S.Ch.E., B.S.Ch.E. (University of Missouri-Rolla), University Professor, Ralph E. Martin Department of Chemical Engineering, 1981, 2018.

Costello, Thomas A., Ph.D. (Louisiana State University), M.S.Ag.E., B.S.Ag.E. (University of Missouri-Columbia), Associate Professor, Department of Biological and Agricultural Engineering, 1986, 1992.

Fairey, Julian, Ph.D., M.S.C.E. (University of Texas at Austin), B.S.C.E. (University of Alberta, Canada), Associate Professor, Department of Civil Engineering, 2008, 2014.

Haggard, Brian Edward, Ph.D. (Oklahoma State University), M.S. (University of Arkansas), B.S. (Missouri University of Science and Technology), Professor, Department of Biological and Agricultural Engineering, 2006, 2011.

Matlock, Marty D., Ph.D., M.S., B.S. (Oklahoma State University), Professor, Department of Biological and Agricultural Engineering, 2001, 2009.

Nutter, Darin W., Ph.D. (Texas A&M University), M.S.M.E., B.S.M.E. (Oklahoma State University), Professor, Department of Mechanical

Engineering, Twenty-First Century Leadership Chair in Engineering, 1994, 2012.

Thoma, Greg, Ph.D. (Louisiana State University), M.S.Ch.E., B.S.Ch.E. (University of Arkansas), Professor, Ralph E. Martin Department of Chemical Engineering, Bates Teaching Professorship in Chemical Engineering, 1993, 2005.

Williams, Rodney D., Ph.D., M.S., B.S.C.E. (University of Arkansas), Instructor, Department of Civil Engineering, 1998.

Zhang, Wen, Ph.D. (Purdue University), M.S. (University of Kansas), Associate Professor, Department of Civil Engineering, 2011, 2018.