

CEE 4984

Municipal Engineering

Course Summary: Municipal Engineering will be offered as a full three credit course beginning in the spring 2010 semester. The intent of this course is to provide the student with an understanding of the field of municipal engineering and the important role municipal engineers play in planning and managing large public projects, operating and maintaining public infrastructure, supporting community disaster response, and regulating development through permitting programs.

Course Objectives:

1. Recognize the basic principles, concepts, and processes of public policy and administration as they relate to the field of municipal engineering and the management of municipal resources.
2. Understand the basic principals of urban planning and how a locality plans, finances, and builds adequate public infrastructure such as roads, water and sewer systems, and other public facilities.
3. Recognize the basic principles of managing transportation systems and public utilities including setting fees, system planning and engineering, managing assets, and maintaining daily operations.
4. Understand the process for developing and enforcing local ordinances and the role they play in protecting the environment and the health, safety, and welfare of the community.
5. Define the key aspects of sustainability as they relate to the field of municipal engineering and understand how localities apply these principals in the development of municipal projects.
6. Understand the role of municipal engineers in the prevention, planning, and response to natural and manmade disasters as part of a community's disaster operations plan.

"Professors of the Practice": Municipal Engineering will be co-taught by Mr. Jimmie Jenkins, Director of Public Works and Environmental Services for Fairfax County, VA and Mrs. Adele Schirmer, Director of Engineering and GIS for the Town of Blacksburg, VA. Mr. Jenkins and Mrs. Schirmer bring a wealth of municipal engineering experience to the classroom.