

* (Note: Core Courses and Electives listed are for the Engineering The Future Funding Program - Students must also satisfy their University's degree requirements regarding core courses and electives, which may differ from those listed here.)

Summary of Course Requirements

Descriptions for Core Courses (Required)		Elective Courses (must take 3)
<p>Old Dominion University</p>	<p>CEE 752 Biological Treatment - Evaluates microorganism interactions, metabolism, nutrient requirements, substrate requirements, environmental conditions controlling growth, and other factors that are important to understanding microbial activity in biological wastewater treatment. The course will introduce various kinetic expressions of biological growth and combine them with fluid transport formulations through reactors that will allow prediction of reductions in organic and nutrient concentrations (i.e. percent removal) and requirements of oxygen or other electron receptors.</p>	<p>CEE 751 Physiochemical treatment Examines the mechanisms that are responsible for contaminant removal and the quantitative representation (theoretical and empirical formulations) of these processes that have been developed to predict treatment performance and are used in process design. The treatment processes that will be evaluated include all of the major processes used in domestic and industrial water and wastewater treatment.</p> <p> CEE 762 Aquatic Chemistry CEE 755 Water Quality Mgmt. CEE 756 Water Quality Modeling CEE 754 Env. Engr. Microbiology CEE 790 Civil & Env. Engr. Experim. Design CEE 650 Pollution Prevention CEE 546 Urban Stormwater Hydrology CEE 552 Air Quality CEE 550 Water Distrib & WW Collection System Design CEE 558 Sustainable Development CEE 554 Hazardous wastes CEE 753 Advanced Water & WW treatment CEE 789 Computational Env. Fluid Dyn. </p>