

## Catalog of Postgraduate Programs and Curricula

### Curriculum for PhD(EVNG) (For students admitted in 2010-11)

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#### Program Requirements for Doctor of Philosophy (PhD) Program in Environmental Engineering

##### *Credits*

1. To complete **at least 15 credits** of approved coursework taken from more than one department, with at least 9 credits from courses offered by the School of Engineering as listed below:

CENG	521	<i>Advanced Separation Processes</i>
CENG	531	<i>Measurements of Air Pollutants</i>
CENG	532	<i>Water Quality Assessment</i>
CENG	565	<i>Environmental Biotechnology</i>
CENG	576	<i>Advanced Physio-Chemical Treatment Processes</i>
CENG	584	<i>Nanomaterials for Chemical Engineering Applications</i>
CIVL	343	<i>Environmental Impact Assessment</i>
CIVL	346	<i>Process Design of Environmental Engineering Facilities</i>
CIVL	347	<i>Air Quality Control and Management</i>
CIVL	348	<i>Air Quality Modeling and Analysis</i>
CIVL	352	<i>Water Resources Planning and Management</i>
CIVL	541	<i>Physical-Chemical Water/Wastewater Treatment</i>
CIVL	542	<i>Biological Waste Treatment</i>
CIVL	543	<i>Aquatic Chemistry</i>
CIVL	545	<i>Hazardous Waste Treatment and Site Remediation</i>
CIVL	546	<i>Landfill Engineering and Design</i>
CIVL	547	<i>Industrial Wastewater Treatment</i>
CIVL	548	<i>Pollutant Transport in Soils and Groundwater</i>
MECH	304	<i>Noise Control</i>
MECH	321	<i>Air Pollution Control</i>
MECH	335	<i>Indoor Air Quality in Buildings</i>
MECH	521	<i>Fluid Dynamics</i>
MECH	526	<i>Air Pollution Meteorology</i>

2. Subject to the approval of the supervisors and the Program Directors, students may take the following courses offered by other departments outside the School of Engineering to fulfill the program requirements:

ENVR	521	<i>Environmental Microbiology</i>
ENVR	605	<i>Introduction to Oceanography</i>
EVSM	522	<i>Advanced Environmental Chemistry</i>
SOSC	562	<i>Sustainable Development</i>

3. Students who are admitted to the program without a master's degree may be required to take additional credits to fulfill the program requirements.
4. Students with a master's degree in an Environmental Engineering or a closely related field may be granted credit transfer subject to approval from the Program Director.

### ***Postgraduate Seminar***

1. To attend EVNG 680 *Environmental Engineering Seminar* every semester; and
2. To present at least 2 seminars during the program of studies.

### ***Language Requirements***

To pass LANG 501 *Postgraduate English for Academic Purposes*.

- (a) *The 1 credit earned from LANG 501 cannot be counted toward the credit requirements.*
- (b) *Exemption from taking LANG 501 may be granted by the Program Director.*

### ***Qualifying Examination***

To pass a qualifying examination within the first 18 months of the PhD studies.

### ***Research and PhD Thesis Examination***

1. To conduct research and enroll in EVNG 799 *PhD Thesis Research*; and
2. To defend the PhD thesis successfully.