

## Master Syllabus

### EGV 1501 - Environmental Assessment & Analysis

**Division:** Science, Mathematics and Engineering

**Department:** Engineering Technology Design

**Credit Hour Total:** 3.0

**Lecture Hrs:** 2.0 **Lab Hrs:** 3.0

**Date Revised:** October 2012

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#### Course Description:

Sampling and analysis techniques for site characterization and assessment. Sampling methods and protocols are presented in detail with respect to environmental liability, compliance and property transfer. Environmental monitoring is explained with emphasis on air quality, surface water and groundwater. Two classroom, three lab hours per week.

#### General Education Outcomes:

- Critical Thinking/Problem Solving Competency

#### Course Outcomes:

##### Monitoring methods

Site appropriate methods used to monitor air emissions, water pollution and soil contamination.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

##### Federal, state and local environmental

List the federal laws governing environmental liability and explain the structure to compliance from state standards and regulations through local ordinances.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

##### Sampling methods

Locate preferred test methods required to prepare a sampling plan and demonstrate respective air, water and soil sampling techniques.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

##### Conduct an on-site characterization

Conduct, document and present a Phase I building and property site assessment.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

##### Assessment purpose and procedure

Explain and relate purpose of sampling and monitoring actions to federal, state and local environmental mandates.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

##### Procedures for transfer

List the assessment procedures for transfer of a commercial or residential property.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

##### Ethical issues

Distinguish and explain the ethical issues involved in sampling, monitoring and site assessment.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% or better on exams

#### Outline:

Survey of federal laws, state & local mandates  
Sampling plans & standards test methods  
Air sampling & monitoring strategies  
Water sampling & monitoring strategies  
Soil sampling & monitoring strategies  
Site assessment procedures  
On site inspections, documentation & presentation