

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

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