EVT 105 Environmental Sampling

Course Description: A course on sampling requirements and techniques. Topics include: sampling groundwater, surface water, drums, sediments, soil, and air; site assessment; and field testing. Students provide transportation to off-campus field trips. Students who complete the course successfully earn a USEPA certificate.

Prerequisites(s): AFL 085, and AFM 093 or MAT 120, or appropriate placement test scores

Corequisite(s): No co requisite

Lecture Hours: 2	Lab Hours: 3	Credit Hours: 3
Lab Fee: 105	Supplemental Fee: 0	Purpose:
☐ Transfer Assurance Guide Course (TAG)	☐ Transfer Module Course (TM)	
Course Format: Lec/Lab	Grading: A/B/C/D/F/I	
Delivery Method: □ Web	□ Hybrid	x Classroom
Semesters Offered: x□ Fall	x□ Spring	x□ Summer

Course Primary Text:

Title: Sampling & Monitoring of Environmental Contaminants	Edition:
Author(s): Barth and Topper	
Publisher: McGraw-Hill	

Supplemental Materials:

Handouts

Course Outcomes:

1	a. An ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities;
2	c. An ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments;
3	d. An ability to function effectively as a member of a technical team;
4	f. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;

5	A commitment to quality, timeliness, and continuous improvement.
6	
7	

Course Topics:

Week 1	Sampling Basics
Week 2	Shipping/ documentation
Week 3	Water Quality Parameters & Testing
Week 4	Stream/lake ecology/ surface water sampling
Week 5	QA/QC, Decon, Lead abatement
Week 6	hydrogeology, groundwater well installation
Week 7	Groundwater flow, groundwater sampling
Week 8	Air monitoring & sampling
Week 9	soil characteristics & sampling, fracking
Week 10	Stormwater monitoring & sampling
Week 11	sampling – group exercise
Week 12	intro to site characterization, Phase I ESA
Week 13	Phase I ESA lab
Week 14	Pase II ESA and lab
Week 15	Final, Lab Practical

Methods of Evaluation/Assessment

x□ Formative: x□ Summative

List assessment activities (e.g. quizzes, discussions, essays, research papers, debates, oral presentations, exams):

quizzes
exams
lab practical
Homework, research paper
group activities
presentation

Course Keeper: Dr. Ann Gunkel Date Completed: 4/15/19