EVT 237 Environmental Impact of Weapons of Mass Destruction

Course Description: A course on understanding weapons of mass destruction and recovery following an attack. Topics include: chemical and biological warfare agents; radiation dispersal devices; and detection, decontamination, and disposal of these agents. Students provide transportation to off-campus field trips.

Prerequisites(s): EVT 105 and EVT 170 **Corequisite(s):** No corequisite

Lecture Hours: 1	Lab Hours: 2	Credit Hours: 2
Lab Fee: 70	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	☒ Classroom
Semesters Offered: □ Fall	□ Spring	☒ Summer

Course Primary Text:

Title: Provided by Instructor	Edition:
Author(s):	
Publisher:	

Supplemental Materials:

US Department of Justice National Institute of Justice, “Guide for the Selection of chemical and biological Decontamination Equipment for Emergency First Responders”, NIJ Guide 103-00, October, 2001
US Environmental Protection Agency National Homeland Security Research Center, “Compilation of Available Data on Building Decontamination Alternatives”, EPA/600/R-05/036, March, 2005
Volchek, K., M. Fingas, M. Hornof, L. Boudreau, L. Duncan, and J. Krishnan, “Review of Decontamination and Restoration Technologies for Chemical, Biological and Radiological/Nuclear Counter-terrorism”, Manuscript Report Series No. EE176. Environmental Protection Service, Environment Canada, Ottawa, ON, 2005
Handouts

Course Outcomes:

1	EVT Students will apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined environmental engineering problems.
2	EVT Students will design solutions for well-defined environmental engineering technology problems and assist with the engineering design of systems, components, or processes appropriate to the discipline.
3	EVT Students will apply written, oral and graphical communication in well-defined technical and non-technical environments, while identifying and using appropriate technical literature.
4	EVT Students will perform standard tests, measurements and experiments then analyze and interpret the results.
5	EVT Students will perform effectively as a member of a technical team.
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Course Topics:

Week 1	WMD & CBRNE: Overview, History, and Response
Week 2	Radiological Agents: Overview and Detection
Week 3	Radiological Agents: Decontamination and Disposal
Week 4	TABLE TOP
Week 5	Chemical Warfare Agents: Overview and Detection
Week 6	Chemical Warfare Agents: Decontamination and Disposal
Week 7	US EPA – Kentucky – FIELD TRIP
Week 8	MID-TERM
Week 9	Biological Warfare Agents: Overview and Detection
Week 10	Biological Warfare Agents: Decontamination and Disposal
Week 11	Nuclear Warfare / Explosive Devices
Week 12	Regional Operational Center (ROC) – FIELD TRIP

Week 13	TABLE TOP
Week 14	PRESENTATIONS
Week 15	FINAL

Methods of Evaluation/Assessment

□ Formative: □ Summative

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

Quizzes
Field Trips
Powerpoints
Exams
Presentations
Research Paper
Guest Speakers

Course Keeper: Barbara Ann Browne Date Completed: 07/07/20