

APPROVED RECEIVED

The University of Toledo

APR 15 2013

COLLEGE OF GRADUATE STUDIES

New Graduate Course Proposal

Contact Person Phone (XXX-XXXX)
 Email

College If Other
 Dept/Academic Unit

Alpha/Numeric Code (Subject area - number)

Proposed title Proposed Effective Term

Is the course cross-listed with another academic unit?

Approval of other Academic unit (Signature and title)

Is the course offered at more than one level?

If yes, an undergraduate course proposal form must also be submitted. If the undergraduate course is new, complete the New Undergraduate Course Proposal; if the undergraduate course is existing, submit an Undergraduate Course Modification Proposal.

Credit hours: Fixed: or Variable: to

| Delivery mode: | Primary | Secondary | Tertiary |
|----------------------|--------------------------------------|--|----------------------|
| Activity Type | <input type="text" value="Lecture"/> | <input type="text" value="Regular Lab"/> | <input type="text"/> |
| Minimum Credit Hours | <input type="text" value="3"/> | <input type="text"/> | <input type="text"/> |
| Maximum Credit Hours | <input type="text" value="3"/> | <input type="text"/> | <input type="text"/> |
| Weekly Contact Hours | <input type="text" value="2.5"/> | <input type="text" value="1.5"/> | <input type="text"/> |

Terms Offered Fall Spring Summer
 Years offered
 May the courses be repeated for credit?
 Maximum hours:
 Are students permitted to register for more than one section during a term?
 Grading system:

Prerequisites (must be taken **before**): e.g., C or higher in BIOE 4500 or BIOE 5500 and C or higher in MATH 4200, etc.

Permission

Co-requisites (must be taken **together**):

Catalog Description (75 Words Maximum)

To acquaint the learner with the strategies and tactics associated with disasters from the standard mass casualty incident (MCI) to the catastrophic incident. The learner will be exposed to principles of disaster medicine and management by means of lectures, readings, and tabletop exercises.

Attach a syllabus and an electronic copy of a complete outline of the major topics covered. Click [here](#) for the template.

Course Approval * This is a new course for the MPH program, which is under the Northwest Ohio Consortium for Public Health (NOCPH).

| | | | |
|---|---|------|--|
| Department Curriculum Authority | <input type="text" value="Shery Mulz"/> | Date | <input type="text" value="4-2-13"/> |
| Department Chairperson | <input type="text" value="Shery Mulz"/> | Date | <input type="text" value="4-2-13"/> |
| *NOCPH College Curriculum Authority or Chair | <input type="text" value="Brian N. Fink"/> | Date | <input type="text" value="4/3/13"/> |
| College Dean | <input type="text" value="Jeffrey J. ..."/> | Date | <input type="text"/> |
| Graduate Council | <input type="text" value="Jeffrey J. ..."/> | Date | <input type="text" value="4-30-2013"/> |
| Dean of Graduate Studies | <input type="text"/> | Date | <input type="text"/> |
| Office of the Provost | <input type="text" value="Jeffrey J. ..."/> | Date | <input type="text"/> |

For Administrative Use Only

| | |
|-------------------|----------------------|
| Effective Date | <input type="text"/> |
| CIP Code | <input type="text"/> |
| Subsidy Taxonomy | <input type="text"/> |
| Program Code | <input type="text"/> |
| Instruction Level | <input type="text"/> |

University of Toledo

PUBH ~~6660/8660~~ 6500/8500

Disaster Preparedness & Response: The Essentials

Term Year

SYLLABUS

*Required for new course approval

Instructor: Paul Rega MD
Faculty Office: 4218 Collier
Faculty/Department web site: <http://www.utoledo.edu/med/pubhealth/index.html>
Office Hours: By appointment
Phone: 419-383-6722
E-Mail: Paul.Regag@utoledo.edu
Class Meetings Location: TBD

***Course Description including course pre-requisites or co-requisites**

Disaster Preparedness & Response: The Essentials is designed to explore strategies and tactics associated with disasters from the standard mass casualty incident to the catastrophic incident. The learner through a combination of lectures, assigned readings, and tabletop exercises will be exposed to all phases of a disaster from the pre-hospital arena up to and beyond a hospital response. It will include exposure to all kinds of disasters from natural to man-made and from accidental to intentional. The learner at the end of the course will view disaster planning and management from a local, state, national, and global perspective.

***Texts (Required and Recommended, Reserve Materials, etc.)**

Assigned readings in peer-reviewed journals; examples:

American Journal of Disaster Medicine

Prehospital and Disaster Medicine

Disaster Medicine and Public Health Awareness

Course Requirements: Expectations of students in course

Attendance: Mandatory. If you must miss a class, please contact me by e-mail or phone and state why you cannot attend.

***Grading policy or criteria**

Grading: 94-100%: A; 90-93%: A-; 88-89%: B+; 82-87%: B; 80-81%: B-; 78-79: C+; 72-77%: C; 70-71%: C-; 69 and below: D or F.

Class Attendance (10%)

Participation (30%)

Homework (30%)

Final Project (30% of grade)

***Assessment of Learning: Identification of methods used to assess student learning in the course**

- Assignments: Communications drills, Inventive ICD drills; Planning/response scenarios
- Projects: Historical reviews
- Group Work: ICS practicum

Classroom Procedures: Expectations of classroom behaviors including UT policies

Attendance: Mandatory. Excuses for valid reasons will be considered (*one point deduction* from final grade for *each one hour* unexcused absence).

- **Independent Assignments:** Unless otherwise stated by the instructors, all assignments must be completed individually.
- **Group Assignments:** Each member of a group must contribute relatively equally to group assignments.
- **Citations:** Unless otherwise stated by the instructors, all assignments must contain appropriate citations of references. Acts of plagiarism and copying others' work will not be tolerated.
- **Telephone/Lab-top Computer Use:** No use of lap-top computer (unless instructed directly by the instructor) during class sessions. Phones on vibrate.
- **Contact Hours:** This 3-credit combined lecture and laboratory course requires 60 equivalent contact hours, which will be delivered via three modes: (1) 32-hours scheduled on-campus lecture and lab sessions; (2) 14-hours off-campus academic Intranet sessions; and, (3) 14-hours arranged on-campus lab sessions.
- **Policies on Late Work:** One point deduction from final grade for each one day that the assignment is late unless specifically excused by the instructor.
- **Accessibility and Special Needs:** As per UTM policy
- **Academic Dishonesty: Ethical Behavior and Practice:** All students are expected to follow the requirements established for the course. In relation, students must read and understand the applicable expectations for ethical behavior and practice stated in the Student Handbook established by the University of Toledo Health Campus Graduate School and/or the Northwest Ohio Consortium for Public Health.
- **Outside Readings / Ancillary Materials:** Yes

***Tentative Class Schedule/Activities/List of Topics Covered**

Objective: *To acquaint the student with the strategies and tactics associated with disasters from the standard MCI to the catastrophic incident.*

1. Week 1: Defining a disaster

- a. Categories
 - i. Simple: Local Response
 - ii. Complex: Federal Response
 - iii. Catastrophic: Multinational/NGO response
- b. Disaster Spiral
- c. Hazard analysis/Risk Assessment
- d. ICS
- e. Objectives
 - i. The learner will
 1. Define simple disaster
 2. Define complex disaster
 3. Define catastrophic disaster
 4. Provide examples of each
 5. Describe the differences among simple, compound, and catastrophic disaster
 6. Provide a hazard assessment of the learner's community
 7. Identify the key components of a disaster spiral

8. Describe the key components of ICS
9. Define “cascade phenomenon”

2. Week 2: The Pre-hospital Response to a Simple Disaster

- a. HAZMAT variations
- b. Objectives
 - i. The learner will
 1. Demarcate the key tactical issues associated with a simple disaster scene
 2. Articulate the importance of an ICS
 3. State the key personnel managing a simple disaster site
 4. State the purpose of a Treatment Area
 5. State the importance of Staging
 6. Define self-tasking
 7. Describe the pros and cons of volunteers
 8. Define Hot, Warm, and Cold Zones
 9. Describe actions to be taken in each of those zones
 10. Describe the PPE to be donned in each of those zones
 11. List warning signs associated with a HAZMAT incident
 12. Itemize the at-risk characteristics of children
 13. Participate in a HAZMAT scenario

3. Week 3: Triage

- a. START-JumpSTART
- b. SALT
- c. Objectives
 - i. The learner will
 1. Define the “Red” victim
 2. Define the “Yellow” victim
 3. Define the “Green” victim
 4. Define the “Gray” victim
 5. Define 30-2-Can do
 6. Define RPM
 7. Define Triage
 8. State for whom START may be used
 9. State for whom Jump-START may be used.
 10. Differentiate between START and SALT triage
 11. Identify exceptions to the triage guidelines
 - a. Children
 - b. Pregnant
 - c. Workers
 12. Triage paper patients using both systems

13. Demonstrate the medical skills that are allowed during triage

d. Questions

- i. The “2” in 30-2-Can Do refers to capillary refill. T or F? True
- ii. START triage is for children and Jump-START is for the elderly. T o F? False.
- iii. A triage color that is used in START is “gray”. T or F? False

4. Week 4 : The Hospital Response to a Simple Disaster

a. HAZMAT nuances

- i. Radiation-Contamination variations

b. Objectives

i. The learner will

1. Enumerate the key geographical locations in a hospital during a disaster
2. Discuss ED preparation for incoming disaster victims
3. Discuss the role of the Emergency Physician
4. Discuss the role of the Emergency Nurse
5. Demonstrate the proper use of a hand-held radio
6. State the importance of HAM radio operators as a redundant means of communication
7. Describe the types of decontamination structures available
8. Tabletop injured and contaminated victims
9. Distinguish between a HAZMAT victim and a radiologically contaminated victim
10. Define Acute Radiation Syndrome
11. Discuss Time, Distance, Shielding
12. Differentiate between radiation irradiation and radiological contamination
13. Participate in a radiological decontamination scenario

5. Week 5: Local, State, and Federal Response to a Complex Disaster

a. Specific topics

- i. Strategic National Stockpile (SNS)
- ii. NDMS
- iii. MRC

b. Objectives

i. The learner will

1. Define SNS
2. Enumerate the types of materiel found in an SNS
3. Detail the process to access the SNS
4. Define NDMS
5. State the roles and responsibilities of NDMS

6. Define DMATs
7. State the roles and responsibilities of DMATs
8. Define USAR
9. State the purpose of USAR
10. Define MRC
11. State the roles and responsibilities of MRC
12. Define CERT
13. State the roles and responsibilities of CERT

6. Week 6: Implications of a Catastrophic Disaster

- a. Pandemic
- b. Objectives
 - i. The learner will
 1. Differentiate between pandemics and other infectious disease outbreaks
 2. Study the 1918 pandemic and its implications for a future pandemic
 3. itemize the differences between a pandemic response and other jurisdictional responses
 4. Describe the Transitional Management Model
 5. Define PODs
 6. Define ACS
 7. Describe the importance of Surge Capacity
 8. Enumerate traditional and non-traditional personnel that may be employed
 9. Describe the effects of a nuclear detonation upon a jurisdiction
 10. Describe the acute and long-term effects of a nuclear detonation
 11. Define Altered Standards of Care
 12. Review Inclusion and Exclusion criteria
 13. Demonstrate SOFA scoring

7. Week 7: Natural Hazards Primer

- a. Earthquakes
- b. Floods
- c. Hurricanes
- d. Wildfires
- e. Tornadoes
- f. Weather extremes
- g. Objectives
 - i. The learner will
 1. Describe the medical effects of an earthquake
 2. Describe the medical effects of a flood

3. Describe the medical effects of a hurricane
4. Describe the medical effects of a wildfire
5. Describe the medical effects of a tornado
6. Describe the medical effects of Crush Syndrome
7. Describe the medical management of Crush Syndrome
8. Define the continuum of heat illness
9. Recognize heat stroke
10. Describe management of heat stroke
11. Describe the management of hypothermia
12. Develop a plan to prepare for and mitigate the effects of a natural disaster for the family

8. Week 8: Introduction to terrorism

- a. History of terrorism in America and beyond
- b. Objectives
 - i. The learner will
 1. Discuss the terrorist's weaponology
 2. Discuss the events associated with The Dalles, Oregon
 3. Discuss Aum Shinrikyo

9. Week 9: Biological Terrorism

- a. Category A agents
 - i. Anthrax
 - ii. Tularemia
 - iii. Botulism
 - iv. VHF
 - v. Smallpox
 - vi. Plague
- b. Selected Category B & C agents
 - i. Ricin
 - ii. VEE
- c. Objectives
 - i. The learner will
 1. Describe the manifestations of the bioterror agents
 2. Describe the medical management of the bioterror agents
 3. Demonstrate proper PPE application
 4. Participate in a bioterror ED scenario
 5. Demonstrate the proper alerting channels of authority

10. Week 10: Chemical Terrorism

- a. Nerve agents
- b. Riot control agents

- c. Blood agents
- d. Blister agents
- e. Mood-altering agents
- f. Objectives
 - i. The learner will
 - 1. Describe the manifestations of the various chem-terror agents
 - 2. Describe the management of patients felled by a chem-terror agent
 - 3. Enumerate the antidotes needs for specific agents
 - 4. Describe the pathophysiology of nerve agent exposure
 - 5. Describe the mechanism of action of atropine
 - 6. Describe the mechanism of action for Pralidoxime chloride
 - 7. Describe the mechanism of action for cyanocobalamin
 - 8. Describe the mechanism of action for amyl/sodium nitrite
 - 9. Describe the mechanism of action for sodium thiosulfate
 - 10. Describe the mechanism of action of calcium gluconate
 - 11. Describe the differences in management between the adult and child victim
 - 12. Don proper PPE
 - 13. Outline the development and management of a decontamination area

11. Week 11: Explosives

- a. IED primer
- b. Blast effect
- c. Blast injuries
- d. Objectives
 - i. The learner will
 - 1. Describe the difference between blast wave and blast wind
 - 2. List the medical consequences associated with blast wave
 - 3. List the medical consequences associated with blast wind
 - 4. Define primary Blast Injury
 - 5. Define Secondary Blast Injury
 - 6. Define Tertiary Blast Injury
 - 7. Define Quaternary Blast Injury
 - 8. Define Quinary Blast Injury
 - 9. Demonstrate the medical management of blast victims
 - 10. Explore explosions in the context of terrorism

12. Week 12: Radiological disaster overview

- a. Objectives
 - i. The learner will
 - 1. Differentiate between the exposure versus contamination

2. Identify the different types of ionizing radiation
3. Prioritize the management of a traumatic, radiologically-contaminated victim

13. Week 13: Evacuation of healthcare facilities

- a. Urgent
- b. Emergent
- c. Objectives
 - i. The learner will
 1. Describe the differences associated with elective, urgent, and emergent evacuations
 2. Apply the ICS principles to evacuation
 3. Identify the key elements required for a successful evacuation
 4. Define “Reverse triage”
 5. Review special evacuation conveyances
 6. Discuss the importance of a rehabilitation zone for rescuers
 7. Apply to principles a pre-hospital simple disaster to an evacuation

14. Week 14: Personal and Family Preparedness

- a. Home
- b. Vehicle
- c. Mental health
- d. Objectives
 - i. The learner will
 1. Locate the Gas, electric, water turn-offs at home
 2. List the principal exits
 3. List food necessities for family members for one week
 4. Discuss perils of standing water
 5. Discuss perils of gas generators
 6. Enumerate key tools to be stored at home and in vehicle
 7. Discuss importance of debriefing following drills, exercises, and real-time events.
 8. Discuss texting versus phoning in a disaster

15. Week 15: Tabletop exercise or Wrapping it up

- a. Objectives
 - i. The learner will
 1. Design a hospital evacuation plan
 2. Design an alternative care site
 3. Design a Point of distributionOr
 1. List the key bullet points to remember during a disaster