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JUN 20 2013

COLLEGE OF GRADUATE STUDIES

The University of Toledo

New Graduate Course Proposal

Contact Person: Paul Rega

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College: Medicine

If Other:

Dept/Academic Unit: Public Health and Preventive Medicine

Alpha/Numeric Code (Subject area - number): PUBH 8510

Proposed title: Issues in Pandemic Preparedness and Response

Proposed Effective Term: 2014 20 (Spring)

Is the course cross-listed with another academic unit? No

Approval of other Academic unit (Signature and title):

Is the course offered at more than one level? Yes

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: 3 or Variable: to

Delivery mode:	Primary	Secondary	Tertiary
Activity Type	Lecture	Regular Lab	
Minimum Credit Hours	2	1	
Maximum Credit Hours			
Weekly Contact Hours	2	2	

Terms Offered: ☐ Fall ☒ Spring ☐ Summer

Years offered: Every Year

May the courses be repeated for credit? Yes

Maximum hours: 30

Are students permitted to register for more than one section during a term? No

Grading system: Normal Grading (A-F, PS/NC, PR, I)

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

None

Date Added: 6-20-13
Council Approved: 10.15.13
To Provost: 10.29.13

Permission

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

Catalog Description (75 Words Maximum)

By mean of synchronous, asynchronous, classroom, audiovisual, and simulation platforms, the learner will develop an in-depth knowledge concerning how the healthcare infrastructure of a community must plan for, respond to, and recover from a pandemic. The course is divided into four topic areas: 1) introduction; 2) preparedness; 3) response; and 4) recovery.

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	Shery Mulz	Date	6-14-13
Department Chairperson	Shery Mulz	Date	6-14-13
* ~~College~~ NOCPH Curriculum Authority or Chair	[illegible]	Date	6/15/13
College Dean	[illegible]	Date	6/17/13
Graduate Council	[illegible]	Date	10-15-2013
Dean of Graduate Studies	[illegible]	Date	10-15-2013
Office of the Provost	[illegible]	Date	6/17/13

For Administrative Use Only

Effective Date	
CIP Code	
Subsidy Taxonomy	
Program Code	
Instruction Level	

Northwest Ohio Consortium for Public Health
University of Toledo
Department of Public Health and Preventive Medicine
Spring xxxx

Course Title: Issues in Pandemic Preparedness and Response

Course Number: PUBH 6510/8510

Credit Hours: 3 semester credits

Course Coordinator: Paul Rega, MD

Course Instructors:

Brian Fink, PhD, CHES
Associate Professor
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Paul Rega, MD
Assistant Professor
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Course Location: Collier Building, Room xxxx

Course Description:
By means of synchronous, asynchronous, audiovisual, and simulation platforms, the learner will develop an in-depth knowledge concerning how the healthcare infrastructure of a community must plan for, respond to, and recover from a pandemic. The course is divided into four topic areas: 1) introduction; 2) preparedness; 3) response; and 4) recovery.

Course Learning Objectives: By the end of the course, the learner will:

1. Name all of the phases of a disaster cycle.
2. Discuss the importance of NIMS (National Incident Management System).
3. Identify the principal officers of NIMS.
4. Define simple, complex, and catastrophic disasters.
5. Discuss the essential of a pandemic that could qualify it as a catastrophic disaster.
6. Discuss the Transitional Management Model.
7. Define surge capacity.
8. Compare and contrast mobile and fixed PODs.
9. Discuss the importance of ACS.
10. Discuss the importance of a JIC (Joint Information Center).

11. Outline three management strategies for mass fatalities.
12. Discuss the importance of the SNS.
13. Discuss NDMS.
14. Summarize current pandemic threats in the world.
15. Name the major attributes of the SOFA score.
16. Discuss the importance of the SOFA score in pandemic planning.
17. Define the egalitarian and utilitarian points of view with regard to pandemic ethics.
18. Discuss the importance of faith-based organizations in pandemic plans.
19. Outline social distancing measures.
20. Discuss the pros and cons of school closures during a pandemic.
21. Itemize the attributes necessary for a sound ethical foundation in pandemic planning.
22. Apply verbal, written, and computer communication skills.
23. Follow ethical and professional guidelines and standards.

Selected Readings:

1. Gursky EA, Fierro MF. *Death in Large Numbers: The Science, Policy, and Management of Mass Fatality Events.* Chicago, IL: American Medical Association, 2011.
2. Rega P, Bork C, Bisesi M, Gold J, Burkholder-Allen K. The transitional medical model: an innovative methodology for a community's disease outbreak and pandemic preparedness and response plan. *American Journal of Disaster Medicine* 2010;5(2):69-81.
3. Barry JM. *The Great Influenza: The Story of the Deadliest Pandemic in History.* New York: Penguin Books, 2005.
4. Canada Institute for Health Information. *The Impact of H1N1 on Canadian Hospitals*, 2010.
5. Rega P, Bork C, Chen Y, Woodson D, Hogue P, Batten S. Using an H1N1 vaccination drive-through to introduce healthcare students and their faculty to disaster medicine. *American Journal of Disaster Medicine* 2010;5(2):129-136.
6. Rega P, Bork CE, Bisesi M, Burkholder-Allen K, Agnoli FL. Pandemic readiness: a plan for Catholic parishes. With teamwork, health care and preparation, parish leaders can reduce a pandemic's effects. *Health Progress* 2009;90(6):6-75.
7. Gao R, Cao B, Hu Y, Feng Z, Wang D, Hu W, et al. Human infection with a novel avian-origin influenza A (H7N9) virus. *New England Journal of Medicine* 2013;368:1888-1897.
8. Uyeki TM, Cox NJ. Global concerns regarding novel influenza A (H7N9) virus infections. *New England Journal of Medicine* 2013;368:1862-1864.
9. Health Protection Agency (HPA), UK Novel Coronavirus Investigation Team. Evidence of person-to-person transmission with a family cluster of novel coronavirus infections, United Kingdom. *Eurosurveillance* 2013;18(11).
10. Ytzhak A, Sagi R, Bader T, Assa A, Farfel A, Merlin O, Kreiss Y. Pediatric ventilation in a disaster: clinical and ethical decision making. *Critical Care Medicine* 2012;40(2):603-607.

Course Policies:

1. *Attendance:* Mandatory, but excuses for valid reasons (e.g., bad weather, illness, work travel) will be considered. Five points will be deducted from final grade for each unexcused absence.
2. *Independent Thinking and Group Participation:* Strongly encouraged, recommended, and expected. This includes staying awake, paying attention, maintaining a positive attitude, and answering questions.
3. *Independent Assignments*: All assignments must be typed and submitted individually.
4. *Group Assignments:* Each group member is expected to fully participate in any group project.
5. *Citations:* All assignments must contain appropriate citations of references, as necessary. Acts of plagiarism and copying other work will not be tolerated.
6. *Ethical Behavior and Practice*: All students are expected to follow the requirements established for the course. Students must read and understand the applicable expectations for ethical behavior and practice stated in the NOCPH Student Handbook and the Student Handbook established by the UTHSC Graduate School.
7. *Equivalent Contact Hours*: All courses will satisfy requirements for an appropriate number of equivalent in-class contact hours (e.g., 15 hours/1 semester credit/semester). One academic hour equals 50 minutes. This will be accomplished, however, through a variety of possible modes, include in-class/lab activities, assignments, and outside projects <u>beyond normal reading assignments</u>.
8. *Assistance:* Contact the course coordinator or instructor of a specific lecture using the information provided on the first page of this syllabus.
9. *Grades:*
   - ICS 100/700 certificates of completion – 10%
   - N95 fit-testing certificate – 10%
   - Class participation – 40%
   - Special project – 40%
     - The project includes:
       - POD development
       - ACS development
       - Press conference organization
       - Pandemic triage presentation and paper

   - Scale
     - A 93 – 100%
     - A- 90 – 92%
     - B+ 87 – 89%
     - B 83 – 86%
     - B- 80 – 82%
     - C+ 77 – 79%
     - C 70 – 76%
     - F <70%

Tentative Class Schedule:

1. Introduction
    a. Week One (pre-requisite – successful completion of FEMA's online ICS-100 and ICS-100 courses)
        i. All-hazard disaster training
            1. Disaster categories – simple, complex, catastrophic
            2. Disaster cycle
        ii. Incident Command System
        iii. Transitional Management Model
            1. Simulation
                a. ICS
                i. TTX: retirement party
                ii. TTX: wedding

    b. Week Two
        i. History of infectious disease outbreaks and pandemics in US history
            1. Yellow fever outbreak, Philadelphia (18th century)
            2. Smallpox outbreak, Minnesota (19th century)
            3. Influenza pandemic, Philadelphia (1917)
            4. Plague outbreak, San Francisco (1906)
        ii. Role of public health in outbreaks and pandemics

    c. Week Three
        i. Current threats
            1. H5N1
            2. H1N1
            3. N7N9
            4. SARS
            5. Novel coronavirus
        ii. Current pandemic prognostications

    d. Week Four
        i. Jurisdictional response
            1. Local
            2. State
            3. Federal
                a. HHS/CDC
                b. SNS
                c. NDMS

e. Week Five
    i. Players
        1. Public health
        2. Healthcare facilities
        3. EMS
        4. EMA
        5. Traditional responders
        6. Physicians, NPs, PAs, EMTs, MRC
    ii. Non-traditional responders
        1. Fraternal, societal, faith-based

2. Preparedness
    a. Week Six
        i. Pandemic potential developing in Far East
            1. Tabletop exercise dissecting learner's plans to mitigate pandemic potential as threat develops

    b. Week Seven
        i. Pandemic potential developing in major population areas of Europe, Africa, and South America as threat looms closer
            1. Tabletop exercise dissecting learner's plans to mitigate pandemic potential

    c. Week Eight
        i. Pandemic potential developing in major population areas of North America as threat becomes an inevitable reality
            1. Tabletop exercise dissecting learner's plans to mitigate pandemic potential

    d. Week Nine
        i. Pandemic appears in learner's community
            1. Tabletop exercise dissecting learner's plans to mitigate worse effects of pandemic potential

3. Pandemic Response
    a. Week Ten
        i. Weeks 1 and 2 of the pandemic
            1. Tabletop exercise dissecting learner's plans to activate surge capacity, re-design healthcare delivery, and develop initial social distancing measures

b. Week Eleven
    i. Weeks 3 and 4 of the pandemic
        1. Tabletop exercise dissecting learner's plans to alter standards of care, to allocate scarce resources, and to heighten social distancing

c. Week Twelve
    i. Weeks 5 and 6 of the pandemic
        1. Tabletop exercise dissecting learner's plans to activate means to alter standards of care, to develop ethical foundations, to institute mass fatality plans

d. Week Thirteen
    i. Weeks 7 and 8 of the pandemic
        1. Tabletop exercise dissecting learner's plans to initiate withdrawal of care strategies

4. Pandemic Recovery (pandemic has been officially terminated by CDC and WHO)
    a. Week Fourteen
        i. Developing a new normalcy
            1. Tabletop exercise dissecting learner's plans to transition from pandemic medical care to a new normal healthcare infrastructure

    b. Week Fifteen
        i. Learner's debriefing
            1. Lessons learned

PUBH 8510
Issues in Pandemic Preparedness and Response
Doctoral Project

Students registered for PUBH 8510 must complete an additional project that consists of research and a 20-page paper. Examples of possible projects include:

1. Survey a random sample of hospital ethics committees across the US to evaluate the make-up and expertise of these committees.

2. Review the major historical epidemics and pandemics in North America along with the public health response (SARS, yellow fever).

3. Develop an educational program using simulation to teach healthcare students strategic and tactical concepts associated with hospital evacuation.

4. Develop community guidelines to assist in returning to a new normal after the termination of a pandemic.

5. Survey the willingness of healthcare practitioners to withdraw ventilator maintenance from non-improving ICU patients in order to provide ventilator care to other patients during a pandemic.

6. Develop a surge capacity course to provide just-in-time training to public health practitioners and students during a pandemic.