

**19<sup>th</sup> Annual Emergency Management Higher Education Symposium – E0392**  
**WORKSHOP SCHEDULE**  
**June 5, 2017**  
**Emergency Management Institute, Emmitsburg, MD**

**Monday, June 5, 2017 – Pre-Conference Workshops (Open Only to Symposium Participants)**

**(1) Survey of the Application of GIS for Emergency Management**  
**8:00 a.m.–12:00 p.m., Computer Lab, M100B (1<sup>st</sup> 34 Registered)**

**Presenter:**    **Kevin Mickey, GISP, CTT+**  
Director, Geospatial Technologies Education  
Indiana University Purdue University Indianapolis

**Description:** This workshop provides a survey of geographic information systems/science (GIS) and how it relates to emergency management. The majority of the workshop will explore fundamental GIS concepts and functions. Participants will receive hands-on exposure to some of the powerful tools in the desktop version of ArcGIS, one of the dominant commercial GIS technologies in use today. Learned skills will include symbolizing existing spatial information such as the distribution of population within a county or land use by category; asking questions such as ‘how many structures are located in a floodplain,’ or ‘what is the total population exposed to an earthquake’; and creating new spatial information such as roads, floodplains, or buildings that can then be mapped and analyzed to answer a question or explain a concept.

The workshop will also explore how the analytical abilities of GIS can support the complex needs of the emergency management community which require moving beyond merely locating a problem to identifying what can be done to prepare for, mitigate or even prevent it. During this part of the workshop, the instructor will demonstrate the capabilities of Hazus-MH, a powerful GIS application freely available from the Federal Emergency Management Agency (FEMA) that can help identify risk as well as appropriate actions that can lead to the reduction of loss of life and property from floods, earthquakes, and hurricanes. Examples of other emergency management related GIS technologies, such as web-based and open source tools, will also be briefly discussed. In addition, examples of research and teaching opportunities as well as resources that are available to support these areas will be explored.

The agenda for the workshop will be as follows.

- 8:00 – 8:15 – Introduction
- 8:15 – 9:45 – GIS Fundamentals
- 9:45 – 10:00 – Break

10:00 – 11:00 – GIS Fundamentals  
11:00 – 11:30 – GIS Analysis for Emergency Management  
11:30-Noon – GIS in Higher Education – Opportunities and Resources

**(2) Survey of Hazus-MH for Natural Hazard Loss Estimation**

**1:00 p.m. – 5:00 p.m., M100B (1<sup>st</sup> 34 Registered)**

**Presenter:**     **Kevin Mickey, GISP, CTT+**  
                          Director, Geospatial Technologies Education  
                          Indiana University Purdue University Indianapolis

**Description:** This workshop will introduce participants to the capabilities of Hazus-MH. Hazus-MH is a powerful GIS-based risk assessment methodology created by FEMA for analyzing potential losses from floods, hurricane winds and earthquakes. In Hazus-MH, current scientific and engineering knowledge is coupled with the latest geographic information systems (GIS) technology to produce estimates of hazard-related damage before, or after, a disaster occurs. Participants will be led thru a combination of lectures and hands-on exercises that help them understand how Hazus-MH can be used to define and analyze flood, earthquake, and hurricane wind hazards and the types of information that Hazus-MH can produce about the social and economic losses that can result from each of those hazards. The workshop will focus on a level 1 analysis which makes it possible to perform a complete hazard analysis with minimal to no additional input of data beyond what is included with the software. However, options for running advanced analysis by integrating user developed hazard data and other types of information will be reviewed as well.

The agenda for the workshop will be as follows.

1:00 – 1:15 – Introductions  
1:15 – 2:00 – Introduction to Hazus-MH  
2:00 to 3:00 – Survey of the Hazus Flood Model  
3:00 – 3:15 – Break  
3:15 – 4:00 – Survey of the Hazus Earthquake Model  
4:00 to 4:30 - Survey of the Hazus Hurricane Model  
4:30- 5:00 – The Role of Hazus -MH in Higher Education Programs

**(3) Faculty Skills- Effective Strategies for Adult Learning and Creating an Engaged Learning Environment**

**8:00 a.m. – 12:00 p.m., S-125**

**Presenters:** Dr. Ron Thomas, Jr., [drronthomasjr@gmail.com](mailto:drronthomasjr@gmail.com)  
Executive Director  
Union Institute & University

**Description:** Effective and engaging learning is more than classroom activities. It requires matching the method of learning to both the actual work performed and the work environment. Much of this work is done at a distance connected by phones, email, online conferencing and other technologies. This session will explore both in person and online methods designed to match the more distributed nature of emergency management today.

**(4) What to Teach in Emergency Management Courses: Thoughts for Those New to the Disaster Discipline.**

**1:00 p.m. – 5:00 p.m., K-308**

**Presenter:** **David A. McEntire, Ph.D.**  
Dean, College of Aviation and Public Services  
Utah Valley University

**Description:** Are you new to the disaster, emergency management, and homeland security disciplines, fields and professions? Do you desire additional knowledge about the fundamental concepts, issues, theories, debates, and literature for your courses in emergency management? If so, this workshop is for you! “What to Teach in Emergency Management Courses” will trace the evolution of emergency management research and discuss important disaster topics and disaster case studies. The workshop will also identify significant schools of thought in emergency management, novel teaching techniques, and future projections in this increasingly important discipline and profession.

(5) [Department of Homeland Security- Science and Technology University Centers of Excellence](#)

8:00 a.m. – 12:00 p.m., K308

**Presenter:**     **Stephanie Willett**  
                      **Program Manager**  
                      **DHS Science & Technology Office of University Programs**

**Description:** Staff from DHS S&T's Office of University Programs will present an overview of the emergency preparedness/response/management research, education, training and workforce development projects, initiatives and deliverables produced by their research Centers of Excellence (COEs). Selected COE researchers will be invited to discuss their relevant work during this session. Workshop participants can expect to learn how to access the products (reports, articles, course content, etc.) and establish informal relationships with COE institutions. Feedback from workshop participants will be used to help formulate future COE activities in the area of emergency preparedness/response/management.

(6) [Grants- Understanding grant opportunities for Emergency Management & Homeland Security](#)

1:00 p.m.–5:00 p.m., S-125

**Presenter:**     **Patricia Glass**  
                      Grants.gov Program Advisor  
                      US Dept of Health & Human Services

**Description:** This workshop will go into detail on how to register, find funding opportunities and apply for grants on the Grants.gov website. Participants will be walked through the portal and be given expert advice on how to navigate the process. The workshop will provide information on the SAM and DUNS number registration, which is also required to enter into micro-purchase contracts with the federal government. Ms. Glass will cover the new Workspace interface as the legacy application process will be phased out at the end of this year. This workshop will provide a great foundation for exploring Federal grant opportunities and is packed with tips and resources to take with them.

**(7) Integrating Emergency Management Education into Your Institution (E0390)**

8:00 a.m. – 5:00 p.m., - M-202

**Presenters:** **Lillian Virgil**

Mitigation Branch Chief

Emergency Management Institute

**Description:** The workshop provides information about Emergency Management (EM) and the benefits of and resources available for integrating EM degree programs and EM course offerings. It is a facilitation-driven workshop focused on creating an action plan to be applied within each participant's academic department. During the session, participants will be inspired to see the importance of EM and will create an action plan that they can use, along with a toolkit of additional resources, when they return to their schools to increase their school's EM-related offerings.