National Trends in Homeland Security Education: UW’s Graduate Program in Critical Infrastructure Protection

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• Outline
  ➢ Program overview
  ➢ About the students
  ➢ Issues and Challenges
Program Overview

• Created in aftermath of 911

• Created for officials and decision/policy makers in public and private sector, to be more effective in management of critical infrastructure systems and emergency services

• Fully accredited master’s program through Department of Urban Design & Planning, 52 credit Masters program

• Completely on-line program, 2 courses per quarter, 8 quarters or two years to complete

• Combines methods courses with infrastructure courses

• Culminates in a capstone experience
A Unique Blend

- Brings business and analytic frameworks to management of infrastructure systems (methods courses):
  - A systems approach — the forest, not the trees
  - Modeling — analyzing the problem correctly
  - Strategic planning — tools that improve the future
  - Continuity Planning
  - Legal, Constitutional, Ethical Issues
  - Risk Management
  - Spatial Analysis (GIS)

- Technical learning about specific infrastructures equips students to tackle real-world problems (content courses)
  - Physical Infrastructure Systems
  - Cybersecurity
  - Public Health and Emergency Management

- Case study approach brings the two together (practica and capstone courses)
  - Integration and synthesis — Program concepts
  - Application — Solving a real problem
  - Multiple methods — Problem-based case, tabletop exercise, research project
About the Students

• Total: 32

• Education level:
  ➢ BA, BS 67%
  ➢ Masters 29%
  ➢ PhD 5%

• Educational background:
  ➢ Liberal arts 19% (history, geography)
  ➢ Social science 48% (political science, public administration, criminal justice)
  ➢ Natural sciences 33% (engineering, geology, health)

• Age:
  ➢ < 25 29%
  ➢ 26-35 48%
  ➢ 36-45 10%
  ➢ 46+ 10%

• Employment:
  ➢ Private sector 34%
  ➢ Government 41%
  ➢ Military 25%

• Residency:
  ➢ Washington 62%
  ➢ Other Western states 19%
  ➢ East Coast 10%
  ➢ International locations 10%
Background & Jobs

- Technology consulting and law enforcement: New Deputy Director of the Office of Emergency Communications in the DHS Cyber Security and Telecommunications Directorate

- Security operations specialist at the Hanford site in WA state: FBI Special Agent

- Analyst at defense and national security contracting company: Program Manager

- Civil engineer in state transportation department: Master planning and CIP development
- Communications and law: US Air Force civilian in Industrial and personnel security

- Youth education consultant: Project Manager at LA Emergency Management

- Training and scheduling Air Force officer: Crisis Action Planner for US Pacific Command
• Difficulties in reaching target audience for program
  - Lack of marketing expertise at the University with security issues and with military
  - Delays in internet advertising strategy

• Challenges with on-line delivery
  - Some subject matter difficult to teach, e.g., GIS
    - Required costly revisions of course
  - Communications between faculty and students critical
    - Explicit communication about feedback, when and where
  - Designing group assignments for an on-line environment
    - Striking a balance between group interaction and individual work
MSPCI Website:
www.criticalinfrastructures.washington.edu

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