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## Mission-Space Driven Curriculum Evolution in All-Hazard Homeland Security Programming

Alexander Siedschlag  
*Penn State Harrisburg*, SIEDSCHA@erau.edu

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# Mission-Space Driven Curriculum Evolution in All-Hazard Homeland Security Programming

The Example of the Online Inter-College  
Master of Professional Studies in Homeland  
Security (*iMPS-HLS*) at Penn State



# Program mission

- “The intercollege Master of Professional Studies in Homeland Security (*i*MPS-HLS) degree program is designed to prepare professionals and develop leaders for the field of homeland security by providing exceptional graduate education that includes an integrated curriculum, expert faculty, and student interaction.”



# Program fundamentals

- Provides select graduate students with an integrated, cross-disciplinary curriculum that is focused on a set of unified educational goals to help them understand and manage the complexities of homeland security in a global environment.
- Is based on an all-hazards approach.
- Comprised of courses from several Penn State colleges.
- Delivered via distance education through the Penn State World Campus to accommodate the needs and careers of professionals who are already active in homeland security and related fields of civil security, or those interested in transitioning into the field.



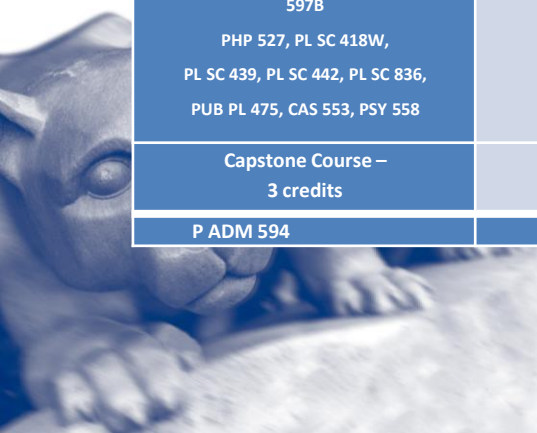
# Study plans

- 33 credits, 9-credit common core curriculum
- In addition to the common core curriculum, students choose:
  - the Base Program in Homeland Security, or
  - one of currently four Options:
    - Public Health Preparedness
    - Geospatial Intelligence
    - Information Security and Forensics
    - Agricultural Biosecurity and Food Defense



# Curriculum map

|   |  |   |  |   |
|---|--|---|--|---|
| <b>Core Curriculum – 9 Credits</b>  |  |   |  |   |
| <b>Non-credit orientation course (includes overview emerging challenges across the Enterprise and mission-critical jobs of the future)</b><br>HLS 801 – Homeland Security Administration: Policies and Programs<br>HLS 803 – Homeland Security: Social and Ethical Issues<br>HLS 805 – Violence, Threats, Terror and Insurgency |  |   |  |   |
| Homeland Security   | Agricultural Biosecurity   | Geospatial Intelligence   | Information Security and Forensics   | Public Health Preparedness  |
| <b>Option Required Courses – 12 credits</b>   |  |   |  |   |
| Base Program  | AGBIO Option   | GEOINT Option   | ISF Option Courses   | PHP Option Courses  |
| <b>20% flexibility rule</b>   |  |   |  |   |
| P ADM 803   | AGBIO 802  | GEOG 885  | IN SC 561  | PHP 530   |
| <b>Elective Courses – 9 credits (3 courses) from the following lists:</b><br>Students should consult with their academic adviser, as necessary, and check the World Campus website  |  |   |  |   |
| AGBIO 520, CAS 553, GEOG 497G, GEOG 880, GEO SC 402Y, IST 554   | GEO SC 402Y, AGBIO 520, GEOG 597K, GEOG 883, GEOG                                    | AGBIO 520, CAS 553<br>GEOG 482, GEOG 483<br>GEOG 484, GEOG 485<br>GEOG 486, GEOG 487  | AGBIO 520, CAS 553<br>GEOG 880(897A), GEOG 883, IST 564, IST 885, P ADM 401, | AGBIO 520, CAS 553<br>GEOG 883, GEOG 897A                                   |
| <b>Possibility of special topics courses</b>  |  |   |  |   |
| PADM 597A, P ADM 597B<br>PHP 527, PL SC 418W, PL SC 439, PL SC 442, PL SC 836, PUB PL 475, CAS 553, PSY 558   | MANGT 510, P ADM 401<br>PHP 527, PL SC 836<br>PL SC 439, IST 564<br>CAS 553, PSY 558 | GEOG 588, GEOG 596I, GEOG 597K, GEOG 861<br>GEOG 862, GEOG 863<br>GEOG 883, GEOG 897A, GEOG 897C, GEOG 897D<br>GEOG 897E, IST 554<br>P ADM 401, PHP 527<br>PL SC 439, GEO SC 402Y, GEOG 880, IST 564, IST 885 | IST 456, IST 564<br>IST 868  | PADM 597A, PHP 527<br>PLSC 439, VBSC 444<br>MANGT 510, GEO SC 402Y, PSY 558 |
| Capstone Course – 3 credits   | Capstone Course – 3 credits  | Capstone Course – 3 credits   | Capstone Course – 3 credits  | Capstone Course – 3 credits   |
| P ADM 594   | AGBIO 594  | GEOG 594  | IST 594  | PHP 594   |



# Unifying goals and objectives (1/2)

Homeland security refers to the unifying core for the vast global network of organizations and institutions that are involved in the efforts to secure society. Regardless of field of specialization, or chosen discipline for graduate study, all professionals in the program will therefore participate in a Unifying Core Curriculum with the following educational goals and objectives:

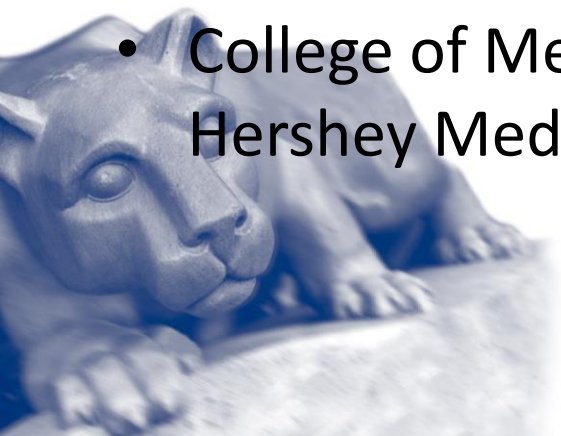
# Unifying goals and objectives (2/2)

- Understand major policies and legislation that shapes homeland security in a globalized society.
- Become familiar with organizations that play a key role in the implementation of homeland security policies and administration, and recognize the interactions among them.
- Understand the way in which a person or group responds to a set of conditions so as to prevent and respond to incidents and catastrophic events when needed.
- Recognize the impact that catastrophic events, both natural and man-made, have on society and the domestic and global economy.
- Identify and assess potential threats, vulnerabilities, and consequences.
- Apply leadership skills and principles that are necessary for producing and acting on information of value within a collaborative setting.
- Communicate effectively in the context of particular institutional cultures.
- Use, conduct, and interpret research and data effectively in decision-making.
- Practice ethics and integrity as a foundation for analytical debate and conclusion.
- Develop an appreciation of the cultural, social, psychological, political, and legal aspects of terrorism and counterterrorism.



# Participating academic units

- Penn State Harrisburg (Base Program and academic & administrative home for the whole program)
- College of Agricultural Sciences
- College of Earth and Mineral Sciences
- College of Information Sciences and Technology
- College of the Liberal Arts (contributor to core curriculum)
- College of Medicine (in collaboration with the Milton S. Hershey Medical Center)



# Elements of residency

- Functional equivalents:
  - Live online sessions with experts from the Homeland Security Enterprise
  - Online Graduate Assistantships under exploration
- Optional residential elements:
  - Internship program
  - Combined continuing education and credit-earning track one-week intensive short course program (test case in August): “HLS Updater”

# Curriculum enhancement

- Live online sessions (see above)
- Video learning objects initiative
  - Expert interviews
  - Symposium and panel contributions



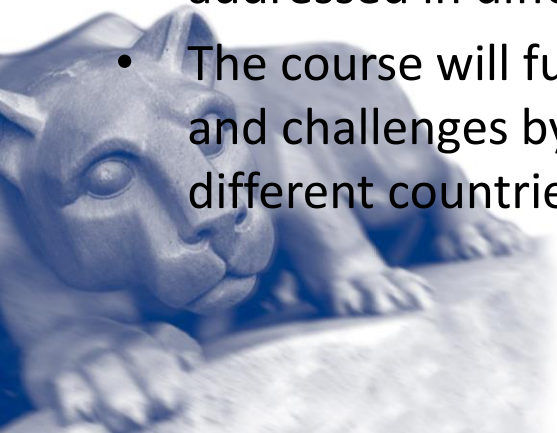
# Curriculum evolution

- Current steps:
  - Non-credit orientation course
  - Pre-capstone cross-option elective
  - 500-level HLS-specific electives
- Next steps:
  - Program strategic plan
  - Prioritization of program objectives
  - Inclusion of Option-specific objectives



# Comparative Homeland Security

- Current 500-level course development in the Base Program
- Civil Security/Security Research Studies as frame of reference
- Since U.S. Homeland Security has evolved from the attacks of 9/11 that were not rooted nationally, but internationally, and its mission space includes addressing of transnational threats as well as working with international partners, a focus on comparative aspects is essential.
- The course will explore how select topics of civil security – such as critical infrastructure protection, cybersecurity, use of armies in homeland security, public-private partnerships, security governance, etc. – are addressed in different countries.
- The course will further address comparative analysis of emergent threats and challenges by focusing on risk cultures and security cultures in different countries.



# Continuing education track

- One-week intensive short course: Homeland Security – An Update in Research and Trends
  - Based on an all-hazard approach, has a modular structure with lectures and micro-seminars given by Penn State faculty and external experts.
  - Provides a cross-disciplinary overview of current trends in the evolving mission space, in the overarching perspective of civil security – for example:
    - Scenario-based analysis of key uncertainties
    - Emerging challenges in threat reduction
    - Geospatial intelligence and homeland security
    - Big data and visualization for decision support
    - Dealing with analytic biases
    - Ethics, Legal, and Social Issues (ELSI)
  - Also comprises interactive syndicate group work, networking receptions, and an internship information and placement service session.



# End-user involvement

- Independent contractors to teach courses
- Homeland Security Advisory Council
  - Sub-Committee on Curriculum
    - Intelligence cycle as a driving force
    - Intelligence writing
    - Capabilities-based Homeland Security model
    - Addressing of “all-hazards” across mission areas
    - Internationalization, both in terms of content and community of students



# Contact

## ***Alexander Siedschlag, Ph.D, MA***

Professor of Homeland Security and Public Health Preparedness

Chair, inter-college Master of Professional Studies Program in Homeland Security

The Pennsylvania State University -- Penn State Harrisburg

School of Public Affairs

160W Olmsted Building

777 West Harrisburg Pike

Middletown, PA 17057

Phone (717) 948-4326 (Program Office: 6322) -- Fax (717) 948-6484

Program Website <http://hbg.psu.edu/research/homelandsecurity>

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