

Homeland Security News & Views

PENN STATE'S HOMELAND SECURITY NEWSLETTER

ISSUE 1, SPRING 2014

Inside this issue:

Welcome	1
Message from the iMPS- HLS Program Chair	2
Update from the Field	3
In The News	4
Upcoming Events	5
Survey of Graduates	7
Annual Report	8
Geospatial Intel Column	8
Spotlight Section	9

Important Dates:

March 27-28, 2014: TMI @
35, Penn State Harrisburg

May 18-21, 2014: ISCRAM
Conference, University
Park

See *Upcoming Events*

Welcome

Welcome to the first edition of *Homeland Security News and Views*, the iMPS-HLS Program newsletter. We plan to publish a newsletter each semester, to include summer session. That means, of course, that I will frequently be soliciting input. The newsletter will generally highlight news from the field or current issues in homeland security, upcoming events, and spotlight an alumnus or alumna and a faculty member.

I am pleased to report that the iMPS-HLS Program: is on very solid footing; continues to grow; interest from prospective students remains strong; and the qualifications of applicants to the Master's degree program are more exceptional than ever. We currently have 593 students and 1925 course enrollments across all five Options. Our students hail from 48 states and 2 countries. And, we take great pride in reporting that we now have 177 terrific alumni (please keep in mind that your program is fairly new). These data are a testimony to the hard work of the entire team of faculty, staff, students, and alumni. We are proud of our current and former students who have set the standard for excellence and look forward to their remarkable contributions to the homeland security enterprise.

Tom Arminio
Program Coordinator



Message from the iMPS-HLS Program Chair



Where might the homeland security landscape be heading in the future? What are the drivers that will influence the evolution of the all-hazards and whole-of-community concepts in the United States? How to shape

homeland security research and research-based curricula in homeland security studies to reflect that evolution? These are only some of the challenges Penn State's Homeland Security Program stands ready to address. Bringing together and applying various disciplines, the inter-college Master of Professional Studies in Homeland Security (iMPS-HLS) Program is well equipped to comprehensively address current trends and future challenges.

The program involves a base option rooted in the public affairs and political science perspective, as well as agricultural biosecurity and food defense, geospatial intelligence, information security and forensics, and public health preparedness. We are proud to have our current students on board in a program that continues to grow and flourish and congratulate all our graduates.

The iMPS-HLS program will increasingly combine research with curriculum evolution to enhance student employability and meet the needs of the homeland security end-user, i.e., organizations in both the public and private sectors. That way, we are able to teach students the skill sets necessary to overcome the challenges of tomorrow, and become the future leaders of the homeland security enterprise.

Future challenges to homeland security are manifold and beyond a merely geographic definition of the term. Resources and resilience figure among the most important of the drivers of homeland security, or insecurity, since crises can easily result from a scarcity of resources or supply chain dependencies. Other drivers include shifts in the situational and policy boundaries between internal and external security, technological change, evolving cyber-techniques to attack as well as dissuade and deter, over-dependency on information and communication technology (think of a cascading breakdown of connected systems), and increased reliance on vulnerable, highly loaded critical infrastructures.

This brief outlook shows that security in the future will have to be thought of as a continuum — comprising the

internal and the external dimensions, the full range of threats, the employment of all instruments of national power, prevention and response, as well as public and private actors. Addressing that continuum, U.S. departments and agencies, along with our international partners, will work closely together, pooling scarce resources, to develop and implement new strategies and technologies to meet evolving security needs. Since under conditions like that, security can be less thought of as a specific reachable end-state than a process, the notion of resilience — to be able to “swing back” after disruption and maintain material and societal values during crisis — will even increase in its meaning and relevance. If preparedness has been said to be as state of mind, resilience can be said to be a process of systems.



For the homeland security enterprise itself to be resilient, future research and education of leaders should address organizational issues such as integration of agencies and homeland security communities involving international partners. Another important aspect of resilience is mainstreaming of terminology to improve “linguistic” interoperability between different communities of practice, provide a better connection of the disciplines involved, establish networked expertise to provide rapid decision support for end users and contribute to continuous evaluation of security strategies at different levels of government and community. This is where cross-disciplinary education will be even more important than it is today. Another aspect is the societal dimension of homeland security. For example, this could involve research into quick response mechanisms for managing social stress resulting from interruption of supplies and resources. Furthermore, the societal dimension relates to addressing the risk of creating an uneven distribution of security across society, for example by technologies that only add to the security of the wealthy or security solutions that may even increase the vulnerability of certain parts of society. Mechanisms such as public consultation should be explored to increase transparency about the aims of homeland security research and the potential use of technologies developed under its aegis. This is only a logical consequence of evolving security threats that are moving homeland security organizations to adopt a more comprehensive approach that considers all hazards, all stakeholders, and society as a whole.

Penn State, as a research-based public university serving the Commonwealth of Pennsylvania and a global community, is the place to go to be educated as a leader in homeland security...and then give back to communities in which we live and work.


Alexander Siedschlag, Ph.D.

Update from the Field: Emerging Issues and Current Trends

Climate Change and Environmental Security Roundtable



CLIMATE CHANGE AND HOMELAND SECURITY



RESEARCH ROUNDTABLE

FEBRUARY 18-19, 2014

Emerging Trends and Opportunities

litical scramble for resources and territory; Andean glaciers have melted and denied important agricultural and urban areas adequate water resources. As predicted, storms are becoming stronger and more damaging to infrastructure and human habitat. Drought is becoming chronic in strategically important areas of Africa and the Middle East, exacerbating existing tensions and affecting the legitimacy of fragile states increasingly threatened by extremist ideology of groups such as Al Qaeda and its affiliates. Subsequently, the economies of affected countries struggle to support growing, youthful populations, which in turn contribute to migration pressures on more developed regions such as Europe and countries such as the United States.

As Hurricane Sandy demonstrated, officials responsible for safeguarding their populations are proactively researching the new climate change milieu and changing the way they prepare. From the domestic threat of border security and critical infrastructure protection to the deep threat of climate change in regions of growing terrorist activities and uncontrolled migration, the impact of climate change on homeland security is growing, and perhaps most significantly, is not well understood. The Roundtable explored how these new threats should be characterized, and what policies and counter-measures should be enacted to mitigate those threats? According to one senior attendee, "This is an ideal venue for senior officials to escape their daily schedule and focus on the strategic dimensions of a critical homeland security issue."

The Roundtable brought together insurance industry executives, academics and think tank experts, the private sector, and senior members of the national and homeland security community to address these and other questions. The Roundtable concluded by recommending priority topics for academic research and inclusion in strategic homeland security documents, including the Quadrennial Homeland Security Review. Several of these topics will be explored in a follow-up climate change and homeland security Roundtable later in 2014. Remarked event organizer Dr. Kent Butts, "These senior leaders freely shared their perspectives and advice on an important policy issues and research priorities; we look forward to sharing their insights with the homeland security research community."

Dr. Kent Butts, faculty member in Penn State's (iMPS-HLS) Homeland Security Program, in partnership with Dr. Jim Ramsey of Embry-Riddle Aeronautical University, conducted a Climate Change and Homeland Security Roundtable on February 18-19, 2014 at Penn State Harrisburg. The purpose of the Roundtable was to explore the impact of climate change upon the homeland security of the United States and to identify key policy issues requiring further research, analysis and priority.

Global surface temperatures rose by approximately 1.3 degrees Fahrenheit over the last century, warming the oceans and giving rise to thermal expansion of water and rising sea levels. Warmer water has led to the migration of economically significant fish stocks and greatly reduced the Arctic sea ice, creating a new trade route and a geopo-

In The News

Penn State Recognized as Top National University for Veterans



A November 2013 U.S. News and World Report named Penn State's University Park campus as the best national university for veterans. Penn State secured the 37th spot among national universities for overall best colleges; however, Penn State offers great benefits to

veterans, helping it achieve the best rankings for veterans' education.

Penn State qualified for this recognition by its membership in the Servicemembers Opportunity Colleges (SOC) Consortium, certification for the GI Bill, and participating in the Yellow Ribbon Program. According to U.S. News, Penn State secured the top spot by providing veterans the benefit of priority registration for classes and assistance with benefits, enrollment, and career services through the University's Office of Veterans Programs.

For more information on this recognition or best college rankings methodology, please visit [Penn State News](#) or [U.S. News' article on Best Colleges for Veterans](#).

Note: World Campus has a robust staff to assist veterans. Please see <https://www.worldcampus.psu.edu/military>

Homeland Security Educators Form New Organization

Never before has the need for efficient and effectively coordinated public preparedness, resiliency, and security been so pervasive or immediate. Recognizing this need,

the International Society for Preparedness, Resilience, and Security (INSPRS... "inspires") announced its official unveiling on September 27 at the 6th Annual Homeland Security and Defense Education Summit. The Summit, held at Hanscom Air Force Base, Burlington, MA, was sponsored by the Naval Postgraduate

School Center for Homeland Defense and Security in partnership with Northeastern University, the Department of Homeland Security, the Federal Emergency Management

Agency, and the National Guard Homeland Security Institute.

So what is INSPRS? It is an international organization dedicated to providing a global forum that advances the education and practice of the emergent academic disciplines of homeland security, civil security, public safety, preparedness, resilience, response, and disaster management. Members of INSPRS: conduct research; are interested in pursuing education standards and accreditation; develop and disseminate best practices; and build connections among academics, policy-makers, and practitioners. The initial planning efforts that led to the creation of INSPRS recognized the need for an integration of several related, yet disconnected, disciplines, as well as the very real need to develop a professional organization with which to facilitate those interdisciplinary efforts. Another need was to create a repository and portal of information for interested individuals, institutions, and/or agencies—public or private.

No one person can claim to be an expert in every aspect of homeland security or homeland defense. INSPRS will help all of us move forward in a more collaborative, networked, and focused manner with the goal of integrating theory, education, policy, analysis, and practice to help us better understand public safety and societal resilience.

The 16 faculty members from across the country who established INSPRS (including three from Penn State) believe, as the paradigm is shifting towards a competency-based education model, the Society will serve as a gathering place where there is dialogue between academia and practitioner communities. This involves not only stakeholders in the United States, but other countries as well. INSPRS will help flesh out competencies employers seek in protecting critical assets and making communities safer and more secure. Over the years, there have been significant contributions to Homeland Security education from a number of different entities. The Naval Postgraduate School's Center for Homeland Defense and Security, the Homeland Security and Defense Education Consortium (HSDEC) and its successor the Homeland Security and Defense Education Consortium Association (HSDECA), and the George Mason Law School's critical infrastructure protection project are fine examples. The gap in Homeland Security education, however, has been a lack of a university-led collaborative effort to tie together theory and practice coherently. INSPRS can step into the breach and fill that gap; no other organization currently exists to do so.

INSPRS has already partnered with the *Journal of Homeland Security Education* and the *Journal of Homeland Security of Emergency Management* to enable members to



INSPRS cont'd

have an outlet for professional opinion and scholarly research articles. The editors-in-chief of both journals are founding members of INSPRS, and DeGruyter, the publisher of *JHSEM*, is offering INSPRS members free online access to the journal through December 2014. For students, INSPRS is affiliated with the nation's top student honor society, the Order of the Sword and Shield (OSS). Students can apply to the OSS, in addition to joining INSPRS. Membership in both organizations will encourage more networking and more "cross-pollination" of specialties and significantly add to your students' professional development. The opportunities that students, scholars, and educators have to advance their profession are now unprecedented. Most importantly, INSPRS offers terrific opportunities for scholars, educators, practitioners, policy-makers, and students to work together to influence the education landscape, contribute to the body of knowledge, and guide policy development to create a future supply of professionals who are matched to wicked problems facing the United States.

INSPRS offers various membership categories to include student memberships, individual members, associate members, and institutional memberships for academic institutions, government, or nonprofit organizations. You can visit www.INSPRS.org to become a member and to read more about this exciting new international society. While the initial work creating this society has been accomplished, there are many opportunities for interested professionals to become actively involved. The founding members can't... and frankly, don't want to... run the organization by themselves. We're encouraging others to not only join, but also take an active role in administering the organization. So maybe you and members of your own professional network have suggestions and recommendations.

Find INSPRS on Social Media:



If you have questions or comments, please send them to info@insrs.org or contact Tom Arminio directly at tja12@psu.edu or 717.948.6649.

Upcoming Events

TMI @ 35 The Three Mile Island Nuclear Crisis in Perspective: Analyses, Stories, Policies

Penn State Harrisburg Library, Morrison Gallery, March 27-28, 2014



In this conference, several members of the Penn State University community will join forces with external subject matter experts to address: the historic TMI accident; the complexities of catastrophic events in the nuclear sector and beyond; lessons learned; and what the perspectives are in the era of homeland security.

On the 35th anniversary of the crisis, this conference will focus on challenges for civil security and the ways complex catastrophic events have been and continue to be attended to by industry experts, scholars, activists, and the public at-large. The conference will include global and cross-disciplinary perspectives. It will address important questions about how TMI set a precedent for nuclear safety and security, how it informed research, and how the event provided a catalyst for social change. Conference participants will engage in analysis of the event and its ramifications, their personal stories, and the ways that policy has been shaped since the crisis to mitigate, prepare for, respond to, and recover from catastrophic events.

Highlights include:

- *Oral history panel* – the TMI accident from the point of view of involved/affected communities;
- *Roundtable*: TMI 1979 in perspective – changes in nuclear safety and security;
- *Panel*: TMI and the comprehensive approach to crisis management – cross-disciplinary perspectives from Penn State research;

TMI @ 35 cont'd

- *Panel:* TMI and the comprehensive approach to crisis management – cross-disciplinary perspectives from Penn State research;
- *Student panel:* TMI and anti-nuclear activism;
- *Concluding roundtable:* Challenges ahead – what we did (not) learn from TMI for the era of homeland security; and
- *A reception hosted by the iMPS-HLS Program*

For the latest information see <http://harrisburg.psu.edu/calendar/event/tmi-35>

Register free of charge online at <http://tmi-35.eventbrite.com>

Penn State University to Host International Conference Focusing on Disaster/Emergency Management and Response



On May 18-21, 2014, Penn State's College of Information Science & Technology will host the **11th annual Information Systems for Crisis Response and Management (ISCRAM) Conference**. ISCRAM is an international community promoting research and development, exchange of knowledge, and deployment of information systems in the field of crisis management. The May conference is expecting to draw approximately 300 attendees.

As you evaluate this conference, please consider the following benefits in participating in this event:

- Access to leading international experts and cutting edge researchers who are dedicated to improving disaster response across the globe
- Networking opportunities with recognized Penn State and international faculty across multiple disciplines
- Opportunities to listen to keynote speakers and hear how they are leading their organizations in integrating technology into the field of disaster response and crisis management

KEYNOTE SPEAKERS

Mr. Edward G. Happ, CIO of the International Red Cross and Red Crescent Societies (IFRC), based in Geneva, Switzerland, and Chairman of NetHope

Dr. Patrick Meier, Director of Innovation at the Qatar Computing Research Institute (QCRI)

Dr. Leysia Palen, Associate Professor of Computer Science, University of Colorado, Boulder; she is a faculty fellow with the ATLAS Institute and the Institute of Cognitive Science

We invite you to engage our expert panelists on the following topics:

- ***Super Typhoon Haiyan: The Information Management Disaster?***
- ***Crowdsourcing Crisis Response: The Boston Marathon Bombing***
- ***Doing IT Right: Ethical, Legal, and Social Issues of IT Supported Emergency Response***
- ***Creating a Common Operational Picture (COP) with the Crowd***

At last year's ISCRAM conference, the headline topics were holistic crisis management and the need to close the gap between scientists and practitioners. It is envisioned that ISCRAM 2014 will advance these discussions as the organization positions itself to take a leadership role to reframe information systems for emergency response and crisis management scenarios.

For more information, please visit the [ISCRAM](#) Conference Website or contact David Jordan, College of IST, Penn State University (djordan@ist.psu.edu)



We hope that you will consider joining this exciting conference.

Survey of Graduates

The iMPS-HLS Program Office recently collected responses from a survey of graduates. Graduates from 2011, 2012, and 2013 responded. Overall, the survey responses were overwhelmingly positive. The results indicate that iMPS-HLS areas of *overall analytical skills* and *written communication* have impacted the careers of our graduates most positively. Respondents indicated that they were either very satisfied (71.4%) or satisfied (28.6%) with the education received in the iMPS-HLS program.

Where are our graduates?

The 22 graduates who responded to the survey indicated they are employed in the following areas:

Federal Government	40.9%
State Government	18.2%
Intelligence Community	13.6%
Information Technology	9.1%
Military: Active Duty	13.6%
Higher Education	9.1%
Nonprofit Organization	4.5%
Private Business	22.7%
Other	9.1%

The iMPS-HLS program values feedback from its graduates. Graduates' responses will be used to improve many aspects of the program. iMPS-HLS graduates who have yet to complete the survey are invited to do so by clicking [HERE](#).

Graduates' Recommendations:

What revisions to the iMPS-HLS program might have made your educational experience more beneficial for your career?

"I would have enjoyed a concentration in terrorism/counterterrorism..."

"Maybe incorporating a few leadership courses into the program"

"I would like to see more courses devoted to how homeland security affects the private sector business."

"Links with employers for things they are looking for"

If you could create one course to enhance the curriculum, it would be...

"Domestic Terrorism"

"Emergency Management"

"A UN certified Global Terrorism course"

"History of Counterinsurgency"

"Private Sector Homeland Security"

Annual Report

The mission of the Intercollege Master of Professional Studies in Homeland Security (iMPS-HLS) Program is to prepare professionals and develop leaders for the field of homeland security by providing exceptional graduate education.

On November 7, 2013, the iMPS-HLS Program Office submitted the first Annual Report to a joint meeting of the Program Administrative and Executive Committees. The Annual Report presented data to illustrate program growth, outlined the status of the five iMPS-HLS Program Options, and presented Program initiatives and recommendations.

The iMPS-HLS Program has demonstrated continued growth in the following areas: applications; headcount; enrollments (including non-HLS students enrolled in iMPS-HLS courses); degrees conferred; graduate certificates awarded; and military enrollments. As of fall semester 2013, the program has 177 graduates. The Program currently (spring semester 2014) has 593 students and 1925 course enrollments.

The Program aims to cultivate these values in its students:

- respect for the freedom and protections offered by a civil society in a globalized world;
- selfless service, integrity, and accountability;
- moral and ethical conduct;
- interdisciplinary collaboration; and
- critical and analytical thinking and problem solving.

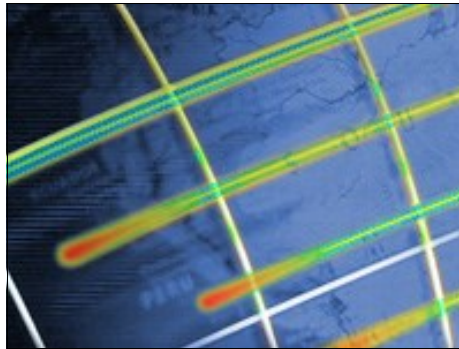
Graduates of the Penn State iMPS-HLS Program will apply these values in a unique and responsible way across a wide variety of homeland security settings and situations.

The multidisciplinary nature of the iMPS-HLS Program originated to afford students the requisite knowledge to succeed in careers in the homeland security enterprise. Given the strong demand for academic advancement in the homeland security discipline, the program leadership continues to be optimistic about equipping responsible professionals with adequate knowledge and skills to effectively prepare for and respond to natural and man-made disasters. With this in mind, the entire Program team—faculty, staff, instructional designers, and World Campus personnel—constantly strive to improve the curriculum, keep it current, robust, vibrant, and relevant and acquire the necessary resources to do so.

Geospatial Intel Column

Geospatial Intelligence and Homeland Security

By Steve Handwerk and David Jimenez



Born within the U.S. Defense and Intelligence communities in the last 20 years or so, Geospatial Intelligence (GEOINT), until recently, was assumed to be exclusively within that

domain. While there are an abundance of definitions of GEOINT in the literature and federal statutes, a clear one remains allusive. We took a combination of differing definitions, including one from our colleague, Dr. Todd Bacastow, to suggest the following: *a discipline that exploits a number of different geospatial data sets, and through the analysis of these data sets, provides guidance and direction to leaders in support of their decisions related to human activity on earth.* Today, GEOINT is emerging as a key information set for many different applications.

First, understand that the art of intelligence is an action-oriented cycle. Starting with a requirement or problem, one collects data, processes it, and analyzes it. From these activities, actionable intelligence products are created for the decision maker. There are temporal considerations as well. It could be a situational analysis of what is going on now, what might happen next, what changes are happening now, what changes occurred, what were the impacts of those changes, and/or some combination thereof. And, perhaps most importantly, can we predict what might occur? A combination of these activities and factors combine to create GEOINT. With these things in mind, let's have a look at some examples of how GEOINT is contributing to the homeland security enterprise:

Law Enforcement: decades ago, officers would use pushpins on wall mounted maps to locate crime scenes. Armed with this information, they could then predict where the next crime might occur, as well as estimate the location of persons of interest. Today, GIS is used to combine geospatial and other data to provide a more robust situational picture. Leaders can then re-allocate limited resources to protect citizens, and apprehend perpetrators. On a larger scale, interagency data can be integrated and graphically displayed on such things as transnational organized criminal enterprises.

GEOINT Column cont'd

Border Security: GEOINT products are used to describe the border; it's natural and manmade barriers, and weaknesses. GEOINT provides active monitoring of the border, especially away from Ports of Entry. Locational analysis of various organized criminal enterprises is used to identify and predict intrusions. Finally, post-incident analysis is performed as part of after action reports, providing recommendations for mitigating future incidents.

Counter Terrorism: GEOINT provides security-planning assistance including perimeter identification/delineation, lines of egress in the event of an incident, and dispersion of law enforcement and rescue assets. GEOINT also plans and monitors specific events (athletic, political, religious, musical, etc.), and ongoing protection of individuals (heads of state and other elected officials, corporate executives, etc.). Post-incident analysis also plays a role in future planning.

Manmade Disaster Analysis: GEOINT identifies manmade disaster prone areas such as geographic proximity to factories, transportation, mines, storage facilities, power plants, and dams. Analysts, in cooperation with other experts, provide recommendations to mitigate disaster potential. They also develop appropriate lines of egress in the event of a disaster. Finally, GEOINT provides real-time/near real-time monitoring of a disaster in progress, and provides pre/post-disaster change detection analysis.

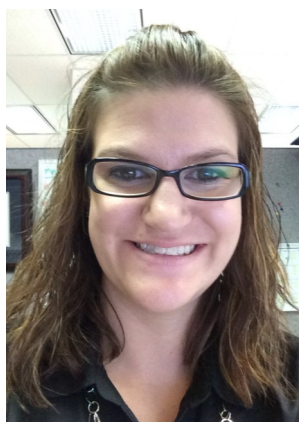
Natural Disaster Analysis: GEOINT identifies natural disaster prone areas including proximity to rivers and other flood prone areas (e.g., flood plains), volcanic activity (lava flow, lahars, ash), fault lines, frequency/severity of earthquakes, weather related events (hurricanes, tornadoes, wind, temperature, snow, climate), and soil types and their effect on human locational activities. GEOINT analysis can mitigate human impacts in disaster prone areas, develop lines of egress in the event of a natural disaster, provide real-time/near real-time monitoring of a disaster in progress, and coordinate disaster recovery/relief efforts. GEOINT is also utilized for pre/post-disaster change detection analysis.

The above list is certainly not exhaustive. In fact, the number of GEOINT techniques and applications are ever evolving, especially with the continuing advance of technology. No doubt many of you, in the course of your careers, will be in the forefront of this continuing evolution.

Mr. Handwerk (sph15@psu.edu) is a current Penn State GEOINT faculty member, and retired program manager for the National Geospatial-Intelligence Agency. Mr. Jimenez

(dxj13@psu.edu) is a Senior Intelligence Research Specialist for U.S. Immigration and Customs Enforcement, DHS. He is also an adjunct professor for Penn State's GEOINT Programs.

Student in the Spotlight



Kirsten Cohick

iMPS-HLS Graduate

Kirsten decided to enroll in Penn State's iMPS-HLS Program while working as a Planning Specialist at the Dauphin County Emergency Management Agency in Harrisburg, PA. She spent nearly three years working towards completing her degree and graduated in August 2013. A week after graduation, she started in her current position as the National Incident Management System (NIMS) Planner at the Pennsylvania Emergency Management Agency (PEMA). This position is located in the Grants Planning Division under the Bureau of Strategic Planning.

As the statewide NIMS point of contact, she works to ensure compliance among the state's 67 counties, all state agencies, and the more than 2,500 municipalities within the Commonwealth. As NIMS compliance is a requirement for receiving federal preparedness funding and grants, she also works with the Grants Management Division. Kirsten commented that, "Since starting this position, I have found the iMPS-HLS program to have been invaluable in preparing me for this role, and I often find myself referring back to coursework and textbooks throughout my work days to help drive a point home, or for reference."

Kirsten whole-heartedly believes that the iMPS-HLS program laid the foundation for her career at PEMA. Having already come into this position with the knowledge of key legal and regulatory authorities that provide the justification and requirements for key homeland security and emergency management programs that she works with on a daily basis has put her ahead of her peers. The curriculum "has also allowed me to hit the ground running, and not have to learn as I am working on projects. Additionally, the knowledge of applicable federal directives – such as *Presidential Policy Directive-8: National Preparedness* and *Homeland Security Presidential Directive-5: Management of Domestic Incidents* – is something that I use daily."

Student Spotlight cont'd

Kirsten also noted that, "The education I received from all of the coursework I took has made for an overall well-rounded, practical experience. One of the more valuable classes was Professor Jim Powers' *PADM 404: Homeland Security and Defense in Practice*. It was in this class that I learned how to format executive summaries, information papers, and power point briefings. I am still referring to the guidelines on these documents when I format my briefings and executive summaries at work."

Finally, Kirsten states that, "Choosing to pursue my Master's through the iMPS-HLS program was one of the best career moves I have made. It has proven to be a priceless foundation to my current position with PEMA, and has allowed me to network with colleagues all over the country. Their knowledge and insight has made me considerably

"Choosing to pursue my Master's through the iMPS-HLS program was one of the best career moves I have made."

better at my job, and has challenged me to keep improving every day. I know it will prove beneficial in the future as well."

The entire iMPS-HLS faculty and staff congratulate Kirsten on her

career progression from the county to the state level and thank her not only for her comments, but also for her significant contributions to the health, safety, and welfare of the residents of Pennsylvania.

Faculty in the Spotlight

Gavin Macgregor-Skinner, BVSc., MSc., MPH,



MRCVS

Dr. Gavin Macgregor-Skinner is an assistant professor in the Department of Public Health Sciences at Penn State College of Medicine in Hershey, PA. He has worked in public health leadership positions with United States and foreign govern-

ments, United Nations agencies, private sector, and military in designing public health preparedness and disaster response programs in Africa, Asia, Europe, the Middle East, and Latin America. Dr. Macgregor-Skinner has been colleagues with some Penn State faculty members since 1996 working alongside them in Bosnia-Herzegovina under the auspices of WMD Non-proliferation and the U.S. Cooperative Threat Reduction Program.

Dr. Macgregor-Skinner led the USAID Avian and Pandemic Influenza technical team in providing assistance in prevention and control of avian influenza outbreaks, and provided direct support to U.S. Government agencies by bringing governments and partners together to form task forces that generated comprehensive national preparedness plans in Africa, Asia, and Latin America. At the Centers for Disease Control and Prevention (CDC), he was deployed to Banda Aceh after the 2004 tsunami and led a team to design and conduct rapid health risk assessments, and developed integrated strategies with the Indonesian Government, UN agencies, and nongovernmental organizations. He served in the Australian and British Army and coordinated public health programs in post-conflict environments. He worked with the British Government's Department for International Development and Agriculture on community-based participatory approaches to disease surveillance and outbreak response. He has also participated in emergency responses to the Madagascar Cyclone Giovanna (2012), Pakistan Earthquake (2005) and floods (2010), West Timor Cyclone Fay (2004), Bangladesh Cyclone Aila (2009), Indonesia Yogyakarta earthquake (2006), U.K. Foot and Mouth Disease Outbreak (2001), Bolivia Desaguadero River Oil Spill (2000), and Bosnia-Herzegovina IDP Crisis (1996).

He has a Bachelor of Veterinary Science from the University of Queensland (equivalent to a doctor of veterinary medicine in the United States), a Master's of Science in Wild Animal Health, Emerging Infectious and Zoonotic Diseases from the University of London, and a Masters of Public Health in Epidemiology and International Health from the Johns Hopkins Bloomberg School of Public Health.

Based on his extensive expertise, the World Health Organization (WHO) recently invited Dr. Macgregor-Skinner to participate in a "Technical Review and Consultation on Early Warning (EWAR) Systems in Humanitarian Crises." The objectives of this consultation are to:

- review lessons and current issues in the implementation of early warning systems for communicable disease control during humanitarian response, and identify possible need for updating the existing WHO guidelines on implementation of EWARs in emergencies;
- provide recommendations for the development of SOP for implementation of EWAR during a humanitarian crisis; and
- review, analyze, and share experience with the implementation of selected EWAR electronic tools in emergencies and humanitarian crises.

Gavin's passion is engaging networks of experts who share knowledge and experiences to increase the global

Faculty Spotlight cont'd

understanding of risk and preparedness. “I really want to fill the gap between theory and practice in managing risk. Practitioners have a wealth of field experience and should strive to achieve a total understanding of risk,” Gavin stated.

In his teaching, Gavin is totally focused on, and committed to his students. “I want to help our students build professional networks that really work. Our students come from such diverse backgrounds, some with 20 years or more experience and want to take their career to the next level. At the other end of the spectrum, we have younger students who hope to get into the PHP field. I really want to help these folks get engaged with professional networks.”

“The other aspect of interacting with my students that I enjoy tremendously is what I call ‘reverse mentoring’. All of our homeland security faculty can frequently learn from our students and we should take full advantage.”

“Gavin brings an international expertise and an unmatched enthusiasm to public health preparedness,” said Eugene J. Lengerich, VMD, MS, Director of the Public Health Preparedness Option. “Students in his classes are immediately immersed in a unique experience that includes lively interaction with Gavin and the other students. We are fortunate to have him on our faculty.”

Gavin has developed and teaches a number of courses including: Public Health Preparedness for Disasters and Terrorist Emergencies I and II; Emergency Operation Plan—Exercises in Public Health Preparedness; and Fundamentals of Biorisk Management. Fundamentals of Biorisk Management is a new course, which will be offered for the first time during summer session 2014, and is very much aligned with the recently launched Global Health Security Agenda. This course emphasizes risk characterization, risk reduction strategies, mitigation, and the Plan-Do-Check-Act (PDCA) cycle. Dr. Macgregor-Skinner wants to help students realize and identify the gaps in current plans. He notes that “there is a huge demand from nursing homes, hospitals, and private sector companies to identify threats and vulnerabilities and develop risk reduction strategies with the goal of overall improvement to their emergency operations plans.” Global Health Security Agenda, Vision and Objectives available at <http://www.globalhealth.gov/global-health-topics/global-health-security/GHS%20Agenda.pdf>

Dr. Macgregor-Skinner thoroughly enjoys the interaction with his PHP students and looks forward to many future semesters teaching in the iMPS-HLS Program.

Contact Information

Thomas Arminio

iMPS-HLS Program Coordinator

(717) 948-6649 | tja12@psu.edu

777 W. Harrisburg Pike | Middletown, PA 17057