

# To the Point: Academic Excellence at USMA

Volume II, Issue I

Spring 2015

## UPCOMING EVENTS

10-11 March: Kermit  
Roosevelt Lecture

13-14 March: Plebe-  
Parent Weekend

26 March: Castle Lec-  
ture

27-28 March: Ethics of  
War Conference

2-3 April: West Point  
Negotiations Workshop

3 April: Minerva Policy  
Modeling Workshop

10 April: Night of the  
Arts

13-17 April: Cyber  
Defense Exercise

16-18 April: American  
Society of Civil Engi-  
neer Student Competi-  
tion

16-19 April: McDonald  
Cadet Leadership Con-  
ference

25 April: D/History  
Weapons Shoot

30 April: Projects Day

9-15 May: TEE Week

23 May: Class of 2015  
Graduation

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## Student Conference on United States Affairs

From 12-15 November 2014, the United States Military Academy hosted students from across the country and around the world for the 66<sup>th</sup> annual Student Conference on United States Affairs (SCUSA). The conference theme, "What's the Worst That Could Happen? The Politics and Policy of Crisis Management," proved to be popular, drawing over 206 students from 112 universities and 23 countries.



Cadets and visiting student delegates meet-  
ing for the first time as members of their  
respective roundtable discussion groups.

As in years past, SCUSA continues to be an unparalleled opportunity for civilian-military exchange. For many of the future civilian leaders in attendance, SCUSA will be the only chance they have to interact with members of the U.S. military. As such, it is an unusual opportunity that confirms or perhaps challenges their assumptions about who serves in the military and why. More often than not, the visiting students depart West Point impressed by the professionalism, personality, and selflessness of the Cadets they meet in the course of the conference.

The conference itself is the oldest gathering of its kind, and by many accounts, the most prestigious. Each year SCUSA engages in important outreach by bringing in leading academics and practitioners to serve as participants in the opening night panel and as co-chairs for 15 roundtables.

Professor Daniel Drezner of Tufts University recently wrote in the *Washington Post* of his first visit to West Point and his experience as a roundtable co-chair at SCUSA 66: "...there are plenty of good reasons to love the U.S. Military Academy, and to come away from the experience believing that these exceptional men and women in uniform can do just about anything they are asked to do." Professor Drezner was particularly impressed by the strong commitment of the Cadets to national service and by the diversity of the Cadets and "their recognition and appreciation of that diversity."

Equally important, universities continue to send their best and brightest students to participate in a unique and vibrant intellectual and social experience. A student from Syracuse University had this to say about his time at SCU-SA 66: "Those four days as a SCUSA delegate will remain one of my favorite college experiences. So far, no other event has been as fun, as intellectually stimulating, and as enriching as this event."

SCUSA also serves as a superb character development experience for the Cadet staff that plans and executes the conference. Starting nearly a year before the conference, the Cadet staff begins planning and coordinating with multiple West Point agencies, replicating staff functions similar to that of a battalion in garrison. While there is some officer supervision, most of the leadership stems from the Cadets, who establish the command climate and uphold professional standards in the run-up to the conference and during the conference itself.

As West Point prepares for SCUSA 67, scheduled for November 2015, 180 Cadets and dozens of military and civilian faculty from across the Academy will take part in the planning and execution of a conference that showcases USMA as the world's premier leadership institute. Judging by the first sixty-six SCUSA conferences, this significant investment of time and effort will pay high dividends, with long-lasting, positive effects on both hosts and guests.



Amb. Thomas Pickering delivering his key-  
note address on the increasingly multidim-  
ensional nature of policy challenges fac-  
ing the next generation of leaders.

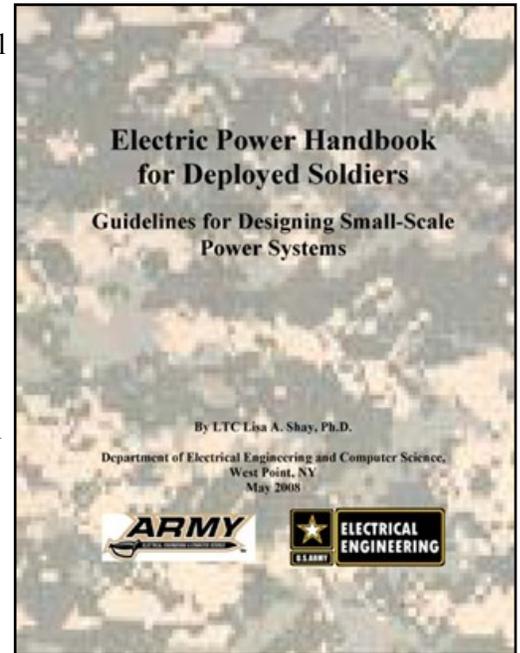
## Faculty Spotlight: COL Lisa A. Shay, D/EECS



COL Shay with Dr. Harry Van Trees presenting the AFCEA award to the top EE graduate, Stuart Baker, '14. COL Shay and Dr. Van Trees, USMA '52, were prior recipients of that award, and Dr. Van Trees was just elected to the National Academy of Engineering.

Colonel Lisa A. Shay is the Director of the Electrical Engineering Program in the Department of Electrical Engineering and Computer Science (EECS). She is a 1989 graduate of USMA, with a BSc in Electrical Engineering. After graduation, she attended Cambridge University as a Marshall Scholar, earning a Master's Degree in Electrical Engineering. Her research was on the application of amorphous silicon to neural networks. She then served in various leadership positions in tactical Signal units in the US and Europe, including the Balkans. She was selected by the EECS department to attend Rensselaer Polytechnic Institute for a PhD prior to joining the faculty. Her doctoral research was in the field of wireless sensor networks.

Another area of interest and publication is electric power systems. COL Shay course directed EE377, Electric Power Engineering, for several years. In response to many requests from the field about how to establish electrical power in villages and cities where the electricity supply was unreliable or non-existent, in 2008 she wrote the *Electric Power Handbook for Deployed Soldiers: Guidelines for Designing Small-Scale Power Systems*.



COL Shay is currently course directing the two-semester capstone project sequence, EE401, Electronic System Design and XE402, Integra-



COL Shay presenting the best-in-course award for EE360, Digital Logic with Embedded Systems, to CDT Adam Kratch, '15, a double major in EE and Math.

tive System Design. There are 16 capstone project design teams in EECS this year; most are multidisciplinary among the Computer Science, Information Technology and Electrical Engineering majors within EECS and several include Mechanical Engineering, Systems Engineering, or Physics majors. Many are robotics projects, including one sponsored by TARDEC as part of the Applied Robotics for Installation and Base Operations project and another sponsored by Picatinny Arsenal to improve an automatic mortar launcher.

COL Shay has been part of an interdisciplinary research group exploring the privacy and security implications of distributed sensor networks. She collaborates with COL John Nelson, D/English and Philosophy, COL Greg Conti, Army Cyber Institute Director, and Dr. Woodrow Hartzog, from the Cumberland School of Law. Their most recent journal article is, "Deconstructing the Relationship Between Privacy and Security" in the Summer 2014 issue of *IEEE Technology and Society Magazine*.

Active in the broader engineering profession, COL Shay is a licensed professional engineer, an electrical engineering Program Evaluator for ABET, and has served as an officer in the electrical engineering professional society, the Institute of Electrical and Electronics Engineers (IEEE). The department has strong ties to IEEE as the EECS Department Head, COL Barry Shoop, is the IEEE President-Elect.

## Department Spotlight:

### DEPARTMENT OF BEHAVIORAL SCIENCES AND LEADERSHIP



The Department of Behavioral Sciences and Leadership (BS&L) strives to build stronger leaders of character by providing Cadets a program of study and experiences that has a direct and immediate relevance to their future professions as military officers and servants to the Nation. Chief among these unique opportunities is their seminal leadership event, the 3rd annual McDonald Cadet Leadership Conference (MCLC) led by Secretary of Veterans Affairs Bob McDonald (USMA '69) and his wife Diane. This Cadet-led conference, held from 16 to 19 April 2015, is a premier and transformative leadership experience that brings together young, emerging undergraduate leaders with preeminent world leaders to discuss leadership within the context of global economics, education, stewardship, and connectedness. This year's conference will bring together students from 28 different American universities and 11 international schools and 20 USMA Cadets with a former President of Mexico; corporate CEOs from the US, Singapore, and China; college presidents from the US and Israel; and senior leaders within the US military, the International Federation of the Red Cross and Red Crescent, the African Development Bank, and the film industry. Student leaders, in conjunction with these world leaders, will publish articles for the online publication, "New York Times in Leadership." To learn more about MCLC, please visit the department's website at <http://www.usma.edu/mclc/SitePages/Home.aspx>. During the conference, follow leaders on Twitter at #MCLC2015.



Sociology and Management Cadets visiting Google for a Talent Management and Leader Development discussion.

BS&L also strives to provide Cadets with other experiences to enhance their leadership capabilities and worldview. For example, the Management Program connects Cadets with various profit, nonprofit, and governmental organizations and business schools. Over the past year, Cadets have visited the NYSE, S&P 500/Dow-McGraw Hill Financial, Bridgespan Nonprofit Consulting, Mercedes-Benz USA, Facebook, and multiple top-10 business schools. Cadets from both the Management and Sociology Programs also recently visited Google to explore talent management and leader development. During these events, business and government leaders learn more about USMA, our mission, and our Cadets. In addition to these experiences,

the Sociology Program strives to strengthen ties with NYC, and, most recently, led the effort to organize Cadet participation in the Homeless Outreach Population Estimate (HOPE) Count to account for the homeless population of NYC.

Focusing on building stronger leaders able to more effectively communicate, actively listen, and counsel, PL300, *Military Leadership*, integrated the Emergent Leader Immersive Training Environment (ELITE) into the classroom during Fall 2014. With the help of the Department's Engineering Psychology Program and USC's Institute for Creative Technologies, ELITE allowed PL300 to conduct a realistic, individual counseling practical exercise for 625 Cadets without a significant increase in manpower requirements. ELITE provides a realistic, computer-based counseling simulation. During these simulations, Cadets not only enhance their abilities to effectively counsel Soldiers but are placed in practical, tough situations, including two leadership scenarios where they must address sexual harassment issues within a platoon. Feedback and data collected from Cadet experiences will play a major role in the refinement of ELITE, its potential expansion within the curriculum, and the eventual fielding of the program Army-wide.



Management Cadets visiting the NYSE.

Finally, BS&L prepares Cadets to handle the complex issues that they may face as leaders in the Corps and beyond. On 10 March BS&L will host a symposium at the West Point Club entitled *Understanding Suicide: Awareness, Prevention and Response*. Guest panelists will include General (Retired) Peter Chiarelli, the 32th Vice Chief of Staff of the Army and CEO of One Mind, best-selling author Dr. Kay Redfield Jamison, and Dr. Barbara Stanley of Columbia University.

# Center Spotlight: Network Science Center

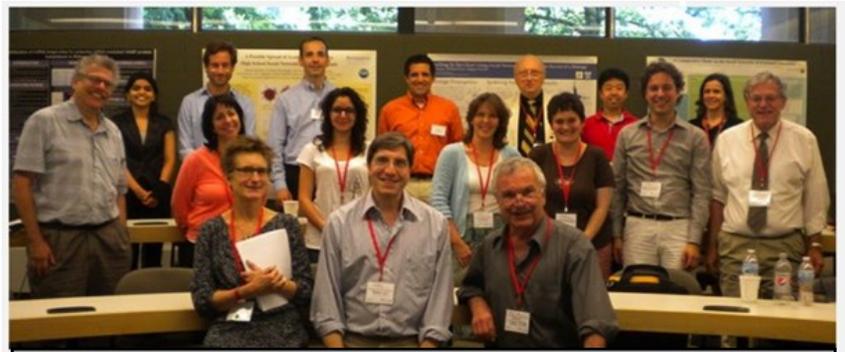


SNAC cadets conducting network science research

The Network Science Center (NSC) brings together service members, civilians, and Cadets to research and develop significant contributions in the study of network representations of physical, biological, and social phenomena leading to predictive models. The NSC is a thought leader in this emerging discipline and addresses Army-specific and related network science challenges. The NSC also provides relevant educational opportunities for current and future Army leaders.

The NSC is inherently interdisciplinary, leveraging a wide range of USMA academic departments, research centers, and disciplinary experts with close ties to military and civilian research centers. This interdisciplinary capability is critical, given the nature of networks that are pervasive across all aspects of life: biological, physical, and social. The unique ability of the Military Academy within the Army to bring these disciplines together provides an opportunity for significant contributions to the defense of the United States against both conventional military threats and the threat of terrorism.

The NSC is committed to educating future Army leaders so they are able to adapt to the complexities they will encounter on the battlefield. To that end, the NSC endeavors to expose Cadets to the theoretical aspects of network science through the administration of an academic minor in network science, our social network analysis club (SNAC), various summer advanced individual academic developmental (AIAD) opportunities, and STEM outreach opportunities. In addition, the NSC seeks to leverage other researcher’s efforts through collaboration with other institutions of higher learning. To date the NSC has over 20 collaborative partners from New York Hall of Science and NetSci High in New York City to the University of Oxford in England. With nearly 75 Cadet and faculty researchers, the center spans 9 of the 13 academic departments here at West Point.



New York Hall of Science NetSci High Initiative.



A megacity is a type of ungoverned space

In 2015, the NSC was commissioned by a Chief of Staff of the Army Initiative called the Army Study Program to develop a quantitative model that will provide tactical units with a basic understanding of how ungoverned spaces function based on network-based classification methods. Ungoverned spaces are regions in which states do not exercise “effective sovereignty.” These spaces need not be physical; they could also be digital or financial. In addition, the Center was asked to demonstrate the most effective methods to influence ungoverned spaces and assess the potential effects. This is just one of the many aspects in which the Network Science Center at West Point contributes to the academic study of networks and their application. The NSC stands ready to explore the links that tie us all.

# Dean's Teams: Orienteering

The thirty Cadets of the United States Military Academy Orienteering Team have had a tremendous year, both in

and out of the woods. Orienteering is a map and compass sport that requires great physical and mental endurance, and the Cadets have continuously proved this year that they have a high degree of both. The team's successes include winning the U.S. Intercollegiate Championships for the twelfth consecutive year and having six Cadets selected to represent the U.S. Team at the World University Orienteering Championships in the Czech Republic. Also noteworthy is the recent Directorate of Cadet Activities announcement that the Orienteering Team is the competitive club with the highest average academic performance score (5<sup>th</sup> year in a row) and military performance score (2<sup>nd</sup> year in a row).



The Orienteering Team with medal winners at the U.S. Intercollegiate Championships in Delaware in April 2014.

To continue this legacy of excellence, the team just finished one of its most active fall semesters ever. The team participated in five nationally sanctioned races that include the U.S. Individual Championships in Rochester, NY and the North American Championships in Ottawa Canada with Cadets placing individually at each race. In addition, the team hosted an Orienteering Workshop last September to teach the principles and sport of orienteering to Boy Scouts across seventeen scout troops from



Cadet Hans Sitarz, '17, provides instruction to a Boy Scout troop during the Orienteering Skills Workshop (September 2014).

four states; community outreach is a core value of the team. This spring, as the Cadets eagerly await

the thaw and a return to West Point's woods, they are preparing for their Intercollegiate Championships during Spring Break (March 21<sup>st</sup> & 22<sup>nd</sup>) and the opportunity to again host their own national-level race: The 36<sup>th</sup> Annual West Point A-meet on May 2<sup>nd</sup> and 3<sup>rd</sup> at Round Pond. The community is welcome to come participate and try the sport.



Cadet Rachel Wolfe, '16, racing in the U.S. National Championships in Rochester, New York, in October 2014.



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The purpose of the Academic Program is to provide our students the intellectual foundation for service as a well-educated commissioned officer who possesses the knowledge and skills necessary for continued growth as a U.S. Army officer. In coordination with the Military and Physical Programs, the Academic Program develops in Cadets a professional self-concept as an officer and nurtures their competence, character, and confidence to act decisively on matters of concern to the Nation. The structure, content, and process of education and development enables Cadets to understand the interrelated roles of a commissioned officer: soldier, servant of the Nation, military professional, and leader of character. The leader development process compels Cadets to incorporate these roles into their own emerging professional identities.

**Duty, Honor, Country**

## From the Dean: BG Tim Trainor



As we roll into the last three months until the Class of 2015 graduates, I wanted to share my thoughts on this past semester and our outstanding Cadets, Staff, and Faculty. We remain focused on our 4,400 Cadets, developing them into leaders of character and the next generation of leaders for the United States Army and the Nation. We see indicators of success on many fronts. The Class of 2015 currently has two Truman Scholars, three Rotary Scholars, and eight Fulbright Finalists.

We have implemented a new Character Development Strategy and are developing a specific Character Development Program, a recognition that character development deserves to be a unique pillar alongside our Academic, Military, and Physical programs. We are preparing a new curriculum for the Class of 2019 that includes much more integration across disciplines, understanding that the requirements our graduates face as leaders in the Army are complex and require broad thinking and intellectual agility. We make these changes to incrementally improve the education our Cadets receive and create the best possible return on the investment that America has made in West Point. Given our mission, nothing less is acceptable. We look forward to the arrival of spring and an exciting summer of internships and military training. Thank you for your support! GO ARMY, BEAT NAVY!