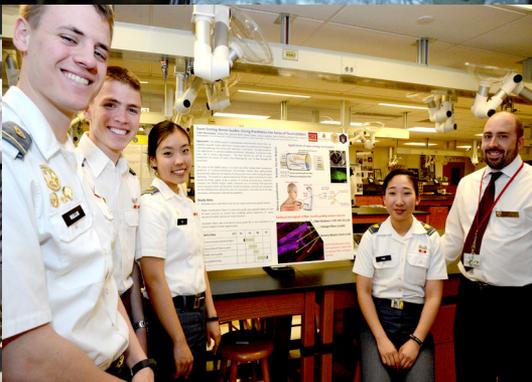




UNITED STATES MILITARY ACADEMY

WEST POINT



PROJECTS DAY

Promoting Academic Excellence

May 3, 2018

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The USMA Projects Day App is available for download by searching “projectsday”.
To access the app in a browser: <http://eventmobi.com/projectsday/>

Thank you to the members of the Academy Research Council (ARC), West Point Association of Graduates (WPAOG), Software and Engineering Branch (SEB), and the Academic Research Division (ARD) staff for their invaluable support in coordinating Projects Day 2018!

WELCOME TO PROJECTS DAY 2018

Thank you for joining us at Projects Day 2018. Today we celebrate academic achievement and collaboration among cadets, faculty and staff, and external researchers.

Projects Day showcases cadet intellect, creativity, and tenacity. This day embodies the vision of the Academic Program to educate and inspire leaders of character who think critically, internalize their professional identity, and employ their education to help build the Army and the nation’s future.

Projects Day highlights cadet and faculty research and innovation as well as the Academy’s strong connections to the Army, the Department of Defense, academe, and beyond. Moreover, the passion for individual and collaborative research exhibited here lays the foundation for a lifetime of intellectual curiosity and problem solving. Congratulations and well done!

Projects Day is a reflection of the work of our amazing faculty and staff. Our dedicated team has challenged, guided, and mentored cadets throughout their work on these projects. As you take in an array of capstone design projects, competition products, thesis defenses, poster displays, individual and group performances, film screenings, and presentations, I encourage you to reflect not just on cadet achievement but on the teaching and mentorship that helped bring these works to fruition. Our inaugural panel of faculty and center research is indicative of the incredible work and collaboration of our dedicated faculty.

Projects Day would not be possible without all of our collaborators, guest evaluators and judges, and students and faculty from visiting schools. Thank you for contributing your time, expertise, and wisdom in helping our cadets tackle complex and challenging problems now and into the future. We are particularly grateful for the support of the West Point Association of Graduates for all that they do.

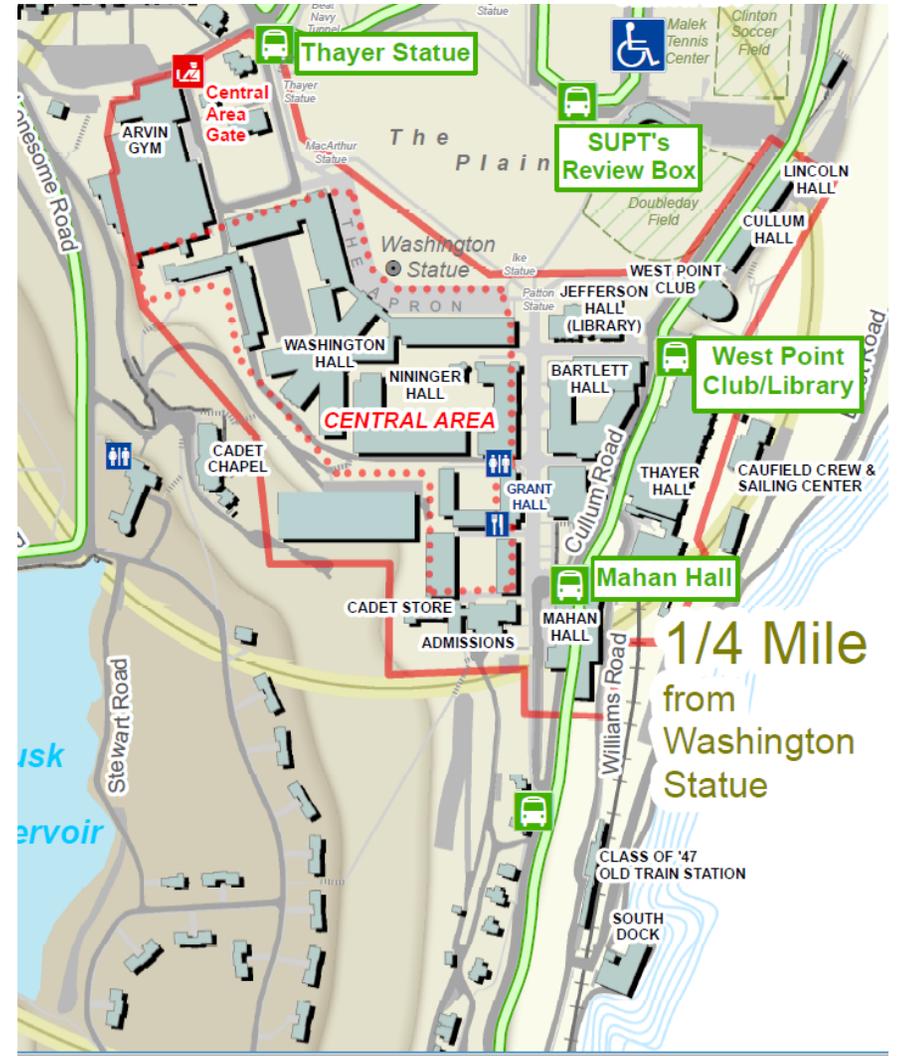
Academic achievement and intellectual development are a community effort. Please join me in congratulating cadets, faculty and staff, and all collaborators and supporters on their hard work on West Point Projects Day 2018!

Cindy R. Jebb, Ph.D.
Brigadier General, U.S. Army
Dean of the Academic Board

MAP OF WEST POINT



MAP OF CENTRAL POST AREA



PRESENTATIONS & THEIR LOCATIONS

ARVIN CADET PHYSICAL DEVELOPMENT CENTER (CPDC)
DPE – Dept of Physical Education

BARTLETT HALL (BH)
CLS – Dept of Chemistry and Life Science, 1st floor
PANE – Dept of Physics and Nuclear Engineering
DPE – Dept of Physical Education, 1st floor

BLDG 606
LAW – Dept of Law, 4th floor

JEFFERSON HALL (JH)
DSE – Dept of Systems Engineering

LINCOLN HALL (LH)
SOSH – Dept of Social Sciences

KIMSEY CENTER (KC)
CME – Dept of Civil & Mechanical Engineering

THAYER HALL (TH)
HIST – Dept of History, 1st floor
BSL – Behavioral Sciences & Leadership, 2nd floor
MATH – Dept of Mathematical Sciences, 2nd floor
DMI – Dept of Military Instruction, 3rd floor
DEP – Dept of English and Philosophy, 3rd floor

WASHINGTON HALL (WH)
DFL – Dept of Foreign Languages, 4th and 5th floor
GENE – Dept of Geography & Environmental Engineering, 5th floor

WEST POINT CLUB (WPC)
EECS – Dept of Electrical Engineering & Computer Science

PARTICIPANTS

The United States Military Academy welcomes students and faculty from the following universities who are participating in Projects Day 2018:

- Binghamton University
- Burke Medical Research Institute
- Clarkson University
- George Mason University
- Iowa State
- Peters VA Medical Center
- Rockefeller University
- Rutgers University
- U.S. Air Force Academy
- Virginia Tech
- University of New Hampshire
- University of Delaware

We also welcome students and faculty from the following schools who are visiting Projects Day and the United States Military Academy:

- United States Military Academy Preparatory School
- West Point Middle School
- James I. O'Neill High School
- Newburgh Free Academy
- Chelsea High School
- Elmont Memorial High School
- Vestal High School
- Bergen County Academies

INTELLECTUAL PROPERTY AND PATENT PROCESSING

The Armaments Research Development & Engineering Center's (ARDEC) Patent Processing group will be at West Point for the entirety of Projects Day. Intellectual Property Specialists will have a staff of lawyers and specialists in Jefferson Hall (JH) Room 116. If your project has a new concept or breakthrough embedded in the report, you need to complete an Invention Disclosure Form. This simple step will initiate the process and allow you to add "Patent Pending" to all future communications of your work. Send a project representative to JH 116 between 0900-1430hrs with your project write up. The ARDEC team will get you through the next step!

AWARDS

The Scott R. Clark Innovation Award

The Scott R. Clark (USMA 1985) Innovation for Soldiers Award is given to the project that best demonstrates an innovative approach to solving a problem of direct application to the soldier and to the Army. The donor states, “This gift is to encourage cadets to demonstrate for soldiers, innovations which can benefit soldiers.”

Each department has the opportunity to nominate projects to compete for the award.

Projects are evaluated based on the following criteria:

- Impact of the innovation to the soldier
- Scope of the innovation (number of soldiers impacted)
- Significance of the innovation (evolutionary vs. revolutionary)
- Impact of the innovation to the Army

The Projects Day panel that will select a winner is comprised of experienced subject matter experts from across the Academy. The Scott Clark Award will be presented during the Inaugural Faculty Panel on Projects Day.

The Walter W. Hollis Award

The Walter W. Hollis Award recognizes excellence in military operations research or systems analysis. The Hollis Award is an annual competition co-sponsored by the USMA Department of Mathematical Sciences and the Department of Systems Engineering. The award is named for the Honorable Walter W. Hollis, former Deputy Under Secretary of the Army for Operations Research, in recognition of his lifetime of distinguished service to the Army and the Nation.

The award winner is selected based on work completed at the Academy that addresses issues confronting the profession of arms. The winner is selected based upon creativity, the application of mathematics, science, & systems engineering concepts, and effective communication of their findings in both writing and oral presentation.

Each department has the opportunity to nominate projects to compete for the award. A panel of TRADOC Senior Leadership will evaluate each project and select a winner.

Army Warfighting Challenges Award

The US Army Training and Doctrine Command (TRADOC) Army Warfighting Challenges Award is presented to the USMA Cadet(s) whose projects best demonstrate potential solutions to support the future Warfighter. The projects must directly support one or more of the twenty Army Warfighting Challenges ranging from Security Force Assistance to Maneuver Warfare. Each department has the opportunity to nominate multiple projects to compete for the award.

A panel of senior leaders from TRADOC and the Army’s Centers of Excellence will evaluate each faculty-recommended project and select the best projects for recognition.

Army Warfighting Challenges and Lead Proponents:

1. Develop Situational Understanding: ICoE
- 2-3. Shape the Security Environment: MCCoE, SOCoE
4. Adapt the Institutional Army and Innovate: PID, Initiatives
5. Counter Weapons of Mass Destruction: MSCoE
6. Conduct Homeland Operations: MSCoE
7. Conduct Space and Cyber Electromagnetic Operations and Maintain Communications: Cyber CoE, SMDC
8. Enhance Realistic Training: MCCoE/CAC-T
9. Improve Soldier, Leader, and Team Performance: MCCoE
10. Develop Agile and Adaptive Leaders: MCCoE
11. Conduct Air-Ground Reconnaissance and Security Operations: MCoE and AVCoE
12. Conduct Joint Expeditionary Maneuver and Entry Operations: MCoE
13. Conduct Wide Area Security: MCoE
14. Ensure Interoperability and Operate in a JIM Environment: MCoE, SOCoE
15. Conduct Joint Combined Arms Maneuver: MCoE and AVCoE
16. Set the Theater, Sustain Operations, and Maintain Freedom of Movement: SCoE
- 17-18. Employ Cross-Domain Fires: FCoE, SMDC
19. Exercise Mission Command: MCCoE
20. Develop Capable Formations: ARCIC

For additional information:

<https://www.milsuite.mil/book/groups/army-warfighting-challenge-awfc-group>
https://www.milsuite.mil/wiki/Army_Warfighting_Challenges

Behavioral Sciences and Leadership - BSL

All BSL Projects are located in Thayer Hall (TH), 2nd floor

Appreciation and Thanks to the BSL Projects Day 2018 Sponsors:

Clemson University

DoD (Policy) Afghanistan (Resource Policy and Requirements)

Time	Project
0900-1200	Projects in Positive Psychology (P)
0900-1200	Assessing Character Measurement Strategies at West Point (P)
0900-1200	Factors Influencing Help-Seeking Behavior in Cadets (P)
0900-1200	What Does Your Face Say About You? (P)
0900-1200	The Enemy of my Enemy is my Friend (PR)
0900-1200	Diversity: A Debate (PR)
0900-1200	The Effect of SES on Success at West Point (PR)
0900-1200	Comparing Media Portrayal of the Bundy Ranch Protests with Standing Rock (PR)
0900-1200	Belonging at West Point (PR)
0900-1200	Human Robotic Interaction (P)
0900-1200	Effects of Individual Differences in Working Memory on UAV Performance (P)
0900-1200	MITRE E-AMP Usability Study (P)
0900-1200	Using ANSUR II Data to Design Side Torso Plates (P)
0900-1200	United States Military Academy Cadet Sleep Study (P)
0900-1200	Self Reporting Symptoms in the Presence of Human Avatar (P)

Poster (P); Presentation (PR); Thesis Defense (TD)

Institute for Creative Technologies (ICT)

Minerva-Department of Defense Initiative

MITRE

Natick Soldier Research Development and Engineering Center (NSRDEC)

Naval Post Graduate School (NPS)

Naval Research Lab (NRL)

Faculty Advisor	Location	Sponsor	Cadet
Dunham, Yoon; Brazil, Donna	Thayer Hall (TH), 2nd Floor		Jerzerick, Curtis; Wheeler, Austin
Lin, Eric	Thayer Hall (TH), 2nd Floor		Cortez, Luis
Korenman, Lisa	Thayer Hall (TH), 2nd Floor		Mortell, Sabrina; Edgington, Aimee; Paglione, Brandon
Korenman, Lisa	Thayer Hall (TH), 2nd Floor		Weiher, Austin; Schebler, Nicholas; McNeal, Janae; Jerzerick, Curtis; Narcisse, Lolita; Taylor, Jonathan
Dawson, Jessica	TH277		Lowe, John
Hajjar, Remi	TH277		Weeks, Sajon; Sparano, Robert; Kehn, Carolyn; Crump, Samuel
Dawson, Jessica	TH277		Nolan, Riley
Dawson, Jessica	TH277		Erron, Bria
Dawson, Jessica	TH277		Kehn, Carolyn; Monaus, Netteange
Rovira, Ericka	Thayer Hall (TH), 2nd Floor	Minerva Initiative	Reed, Mason-Wade
Rovira, Ericka	Thayer Hall (TH), 2nd Floor	Clemson & Naval Research Lab	Davis, Dashawn
Thomson, Robert	Thayer Hall (TH), 2nd Floor	MITRE	Ackerman, Christian; Rea, Joshua; Boos, Lauren; Rose, Kaley; Gough, Seth; Halbrook, Abigail
Yarnell, Angela	Thayer Hall (TH), 2nd Floor	NSRDEC	Tsang, Newton
Ness, James	Thayer Hall (TH), 2nd Floor	NPS	Crowder, Keaton; Nagila, Esther
Ness, James; DiNini, Richard	Thayer Hall (TH), 2nd Floor	ICT	Gray, Rebecca; Stewart, Taylor

Behavioral Sciences and Leadership - BSL

All BSL Projects are located in Thayer Hall (TH), 2nd floor

Time	Project
0900-1200	Voice of Customer and Benefit Cost in the Design of a Combat Uniform for the Afghan National Army (P)
0900-1200	The Detectability of Camouflage Patterns in Afghan Environments under Photopic and Mesopic Conditions (P)
0900-1200	Detection and Recognition of Single and Multiple Targets Wearing Candidate ANA Camouflage Patterns in Tactically Relevant Environments (P)
0900-1200	A Qualitative Assessment of Behavioral Health at West Point (PR)
0900-1200	Improving Soldier's Well Being - There's An App For That (P)
1000-1200	Management Capstone Presentations - Minute Man National Historical Park (P)
1300-1400	Analyzing the Male Rape Myth Acceptance Scale (TD)
1300-1500	Management Capstone Presentations-Strategy Consulting (P)
1400-1500	A Cost of Combat: A Meta-analysis of the Literature on Emotional Numbing (TD)
1500-1600	What Female Military Leaders Hear (TD)

Faculty Advisor	Location	Sponsor	Cadet
Ness, James; Barakzai, Abdul Hadi	Thayer Hall (TH), 2nd Floor	DoD (Policy) Afghanistan (Resource Policy and Requirements)	Lysek, Makenzie; Petricca, Nicholas; Snelson, Samantha
Ness, James; Ries, Anthony	Thayer Hall (TH), 2nd Floor	DoD (Policy) Afghanistan (Resource Policy and Requirements)	Morgan, Graham
Ness, James; Anthony Ries	Thayer Hall (TH), 2nd Floor	DoD (Policy) Afghanistan (Resource Policy and Requirements)	Nash, Airyn
Dawson, Jessica	TH277		Sparano, Robert
Dunham, Yoon	Thayer Hall (TH), 2nd Floor		Jerzerick, Curtis; Wheeler, Austin
Perlik, Samuel	TH259	G421: Strategic Management	
Carroll, Marjorie; Korenman, Lisa; Lindquist, Joseph	TH259		Deweese, Sydney
Perlik, Samuel	TH277	G421: Strategic Management	
Condly, Steven; Korenman, Lisa; Carroll, Marjorie	TH259		Miller, Nicholas
Korenman, Lisa	TH259		Wisseemann, Shannon

Poster (P); Presentation (PR); Thesis Defense (TD)

Chemistry & Life Science - CLS

All CLS Presentations are located in Barlett Hall (BH), Room 150

All CLS Projects are Poster Sessions

Appreciation and Thanks to the CLS Projects Day 2018 Sponsors:

Army Research Laboratory (ARL)

Army Research Office (ARO)

High Energy Laser Joint Technology Office (HEL-JTO)

Congressionally Directed Medical Research Programs (CDMRP)

Cornell School of Veterinary Medicine (Prof. D. Bowman)

Defense Advanced Research Projects Agency (DARPA)

Directed Energy Professional Society (DEPS)

Defense Threat Reduction Agency (DTRA)

Time	Project
0730-1030	3D Noble Metal Alloy (Pt/Pd and Cu/Pt) Microtubes For Electrocatalysis
0730-1030	Accessing Blood Biomarkers For Mood Disorders
0730-1030	Aligned Fiber Nerve Conduits for the Selective Extension and Sorting of Axon Growth Following Traumatic Injury, Disease, or Amputation (The SENSE Project)
0730-1030	Bio-Residual Fuel Oil Combustion Evaluation
0730-1030	Bottom-up Assembly of 3D Graphene/platinum Nanotube Composites for Oxygen Reduction Catalysis in Fuel Cells
0730-1030	Cadet Tobacco & Nicotine Use
0730-1030	Cellulose Nanofiber Biotemplated Palladium Aerogels as Tunable Catalysis Platforms
0730-1030	Characterization of PMMA and PVC Doped with Quantum Dots
0730-1030	Characterization of Stable Cell Lines with Olfactory Specific Receptors
0730-1030	Conductive Silk Fibers and Films for Biochemical Detection and Bio-Supercapitors
0730-1030	Design and Synthesis of Caged Neurotransmitters
0730-1030	Determining Human Blood Pathology by Fingerprinting Transient Rheological Data

Edgewood Chemical Biological Center (ECBC)

Los Alamos National Laboratory (LANL)

Naval Research Laboratory (NRL)

National Science Foundation (NSF)

Office of Naval Research (ONR)

Picatiny Arsenal

Photonic Research Center (PRC)

U.S. Army Research, Development and Engineering Command (RDECOM)

Renewable Energy Group

Rockefeller University

Faculty Advisor	Sponsor	Cadet
Burpo, John; Nagelli, Enoch		Losch, Anchor
O'donovan, Kevin; Wickiser, John		Keith, Jacob; Panner, Matthew; Albright, James
Loverde, Joseph	DARPA	Yoon, Annette; Gates, Isabelle
Bull, Geoffrey	Renewable Energy Group	Schwarzman, Sarah; Cooper, Lauren; Pontius, David
Nagelli, Enoch; Woronowicz, Kamil; Mitropoulos, Alex		Milanesa, Gabrielle
Dorfman, Sally		Lee, Kenny; Lewis, Connor; Song, Ken
Burpo, John; Nagelli, Enoch; Mitropoulos, Alex	DARPA	Palmer, Jesse
Riegner, Dawn	RDECOM	Morris, Destinee; Lewis, Jessica; Belardo-Flowers, Alexander
Cave, John W; Mitropoulos, Alex	ONR	Kiesewetter, Kylor; Andersen, Zachary; Hug, Jason; Mills, Channah; Huuki, Elizabeth; McDonough, Matthew; Pruneski, James; Appel, Alanna
Nagelli, Enoch; Mitropoulos, Alex		Wang, Jenny
Comitz, Richard		Schell, Daniel
Armstrong, Matthew		Helton, Tyler

All CLS Presentations are located in Barlett Hall (BH), Room 150

Time	Project
0730-1030	Determining Rhodamine Derivative Dye's Efficacy as a "Rapid Eye" Colorimetric Detector of Nerve Agents
0730-1030	Developing an Assay for Biofilm Formation on Various Surfaces Using <i>Acinetobacter baumannii</i>
0730-1030	Development Process of Stable Cell Lines with Olfactory Modified Proteins
0730-1030	Protecting the Warfighter from Pathogens
0730-1030	Gelatin Biotemplated Platinum Aerogels
0730-1030	Identification of Microbial Samples with MALDI-TOF MS
0730-1030	Interfacing Bacterial Photosynthetic Reaction Centers with Graphene Oxide Electrodes
0730-1030	Investigation and Selection of Inert Substitutes for Energetic Content of Munitions in High Energy Laser Effects Research using Differential Scanning Calorimetry
0730-1030	Cobalt Oxide/Graphene Composites for Electrocatalysis in Fuel Cells and Supercapacitors
0730-1030	Matrix Metalloproteinases as Biomarkers for Anterior Cruciate Ligament Injury and Recovery
0730-1030	Optimizing Binding of Bacterial Reaction Centers on Graphene Oxide
0730-1030	Phage Effects on Antibiotic-Resistant Bacteria
0730-1030	Polyelectrolyte-wrapped Carbon Nanotubes and Graphene/Nickel Nanoparticle Electrodes for Biosensing
0730-1030	Probing Serotonin Receptor Expression in Peripheral Blood Mononuclear Cells as a Means to Monitor Depression
0730-1030	Protecting the Warfighter from Parasites
0730-1030	Protecting the Warfighter from Biological Weapons

Faculty Advisor	Sponsor	Cadet
Comitz, Richard	ECBC	Hall, Grant
Hershfield, Jeremy; Eslinger, Melissa; Barnhill, Jason		Isham, Jordan; Volenec, Sydney; Zhu, Peter; Cho, Hyeveen C; Weiss, Thomas; Bowling, Gartrell
Mitropoulos, Alex; Wickiser, John; Cave, John	ONR	Andersen, Zachary; Kiesewetter, Kylor; Hug, Jason; Mills, Channah; Huuki, Elizabeth; Mcdonough, Matthew; Pruneski, James; Appel, Alanna
Kennedy, George; Labare, Michael; Butkus, Michael	DTRA	Nguyen, Michael; Min, Michael; Bush, Julia; Fitzgerald, Jacob
Burpo, John; Nagelli, Enoch; Mitropoulos, Alex		Ryu, Madeline
Mentis, Elizabeth	DTRA	Park, Dowon
Woronowicz, Kamil Nagelli, Enoch; Mitropoulos, Alex		Gong, Allen
Riegner, Dawn	ARL; ARO; HEL-JTO LANL, DEPS	Johnson, Jordan
Nagelli, Enoch; Mitropoulos, Alex		Petrella, Benjamin
O'Donovan, Kevin; Reilly, James; Trump, Jesse; Wickiser, John	CDMRP	McGovern, Meaghan; Horne, Caroline
Woronowicz, Kamil; Mitropoulos, Alex; Nagelli, Enoch		Wagner, Ramsey
Barnhill, Jason; Hershfield, Jeremy		Goei, Christian; Duarte, Jason; Meany, Julianne
Nagelli, Enoch; Mitropoulos, Alex		Vu, An
O'Donovan, Kevin		Fryer, Jacob
Labare, Michael; Butkus, Michael	DTRA; Cornell School of Veterinary Medicine	Iwanyk, Katherine; Gagnon, Megan; Chamberlin, Sarah; Buehrer, Johannah
Labare, Michael	DTRA	Meier, Sarah; Sannella, Matthew

Chemistry & Life Science - CLS

All CLS Presentations are located in Barlett Hall (BH), Room 150

Time	Project
0730-1030	Rheological Properties of Bio- and Bio-Residual Fuels
0730-1030	Synthesis of Anti-Leishmania Drugs
0730-1030	Testing Whether the Depression Biomarker p11 Tracks Ambient Light in a Cadet Population
0730-1030	Ultra-lightweight and Conductive Composite Body Armor Fibers
0730-1030	Using Constitutive Modeling to Assess Human Blood Rheology and Diagnose Pathology
0730-1030	Using RT-qPCR to Measure Inflammation Biomarkers following Anterior Cruciate Ligament Injury and Recovery
0730-1030	Using the AKM Model to Assess Human Blood Rheology and diagnose Pathology
0730-1030	Using the BMP Model to Assess Human Blood Rheology and Diagnose Pathology
0730-1030	Using the Herschel-Bulkley and Stickel Models to Assess Human Blood Rheology and Diagnose Pathology
0730-1030	A Predictive Synthesis Model for Biotemplated 3D Nanowire Aerogels and Porous Films
0730-1030	Detection of Borrelia Burgdorferi in Ixodes Scapularis Ticks Collected in the West Point Training Areas
0730-1030	Development of a Thermodynamic Calculator in Mathematica
0730-1030	Kombucha: Alcoholic or Not?
0730-1030	3D Printing for Making Munitions
0730-1030	Bioengineering Research at Georgia Tech University
0730-1030	Biomedical Research at the Uniformed Services University of the Health Sciences
0730-1030	Biomedical Research at the Walter Reed Army Institute of Research
0730-1030	Chemical Fingerprint Image System
0730-1030	Determining Rhodamine Derivative Dye's Efficacy as a "Rapid Eye" Colorimetric Detector of Nerve Agents
0730-1030	Development of a Microfluidic System For a Biosensor Using a Microelectrode Array
0730-1030	Development of the XM1128 Field Artillery Round

Faculty Advisor	Sponsor	Cadet
Bull, Geoffrey; Armstrong, Matthew	Renewable Energy Group	Schwarzman, Sarah ; Eckstein, Luke
Comitz, Richard		McNiffe, Nicholas; Tucker, Ryan
Odonovan, Kevin; Wickiser, John; Ness, James	PRC; Rockefeller University	Kuang, Maya
Nagelli, Enoch; Mitropoulos, Alex		Ousley, Evan; Koppel, Blake
Armstrong, Matthew		Deegan, Michael
O'Donovan, Kevin	CDMRP	Hallstead, Serica; Maheshwari, Kajol
Armstrong, Matthew		Mooradian, Lynne
Armstrong, Matthew		Keith, Charles
Armstrong, Matthew		Clark, Michael
James, Corey; Nagelli, Enoch; Woronowicz, Kamil; Burpo, John; Mitropoulos, Alex		Kim, Tae Young
Rodriguez, Ryan		Whitney, Hunter
Biaglow, Andrew		Glinski, Denis
Riegner, Dawn		Johnson, Jordan
Comitz, Richard	Picatinny Arsenal	Sullivan, Michael
Hershfield, Jeremy	DTRA	Whitfield, Daniel; Martin, Elizabeth; Klamm, Jacob
Hershfield, Jeremy	DTRA	Mayolo, Patrick; Bowling, Gartrell; Yamamoto, Laura
Hershfield, Jeremy	DTRA; Gift Fund	Keith, Jacob; Lee, Kenny; Salinas, Aaron
Comitz, Richard	ECBC	Coon, Julia
Comitz, Richard	ECBC	Hall, Grant
Mitropoulos, Alex; Wickiser, John	DTRA	McDonough, Matthew; Pal, Kanak; Marsh, Angela; Boylston, Payton
Comitz, Richard	Picatinny Arsenal	Klemm, Louie

Chemistry & Life Science - CLS

All CLS Presentations are located in Barlett Hall (BH), Room 150

Time	Project
0730-1030	Energy-Positive Wastewater Treatment in an Anaerobic Reactor System
0730-1030	Malaria Diagnostics and Speciation
0730-1030	Mass Spectrometry and CBRN Threats
0730-1030	Physician Shadowing and Clinical Investigations at Eisenhower Army Medical Center
0730-1030	Physician Shadowing at the Landstuhl Army Regional Medical Center
0730-1030	Physician Shadowing at the Walter Reed National Military Medical Center
0730-1030	Preparation for iGEM at the Naval Research Laboratory
0730-1030	Raman for Protein Discrimination
0730-1030	Solar Fuel Production: CO ₂ to Fuels
0730-1030	Wound Research at the Army Institute for Surgical Research
0730-1030	Performance Predictors Determined by Three-dimensional Body Scans of Military Soldiers
0730-1030	3D Platinum Nanotube and Carbon Composite Electrodes for Electrocatalysis in Fuel Cells
0730-1030	Salt-Templated Hierarchically Porous Platinum Macrotube Synthesis
0730-1030	Interplay of Antibiotic Resistance and Biofilm Formation of <i>Acinetobacter Baumannii</i> Evaluated Through in Vitro Experimentation and Microscopy

Faculty Advisor	Sponsor	Cadet
Hershfield, Jeremy	NSF	Lucio, Daniel
Hershfield, Jeremy; Eslinger, Melissa	Gift Funds	Weiss, Thomas; Nepa, Natalie; Ryu, Madeline; Gagnon, Megan
Comitz, Richard	ECBC	Traynor, Emily
Hershfield, Jeremy	Gift Fund	Obiomon, Ejakhianaghe; Yang, Amy
Hershfield, Jeremy	Gift Fund	Fryer, Jacob; Hartel, Hanna
Hershfield, Jeremy	Gift Fund	Hallstead, Serica; Bayer, Mary; Cabey, Mark; Cho, Hyeveen; Gates, Isabelle; Gunderman, Whitney; Keith, Charles Lewis, Connor; Lewis, Jessica; Nilles, Anthony; Park, Downon; Pruneski, James; Volenec, Sydney; Weigel, Rebecca; Yu, Haa-Un; Zhu, Peter
Wickiser, John	DTRA	Mcdonough, Matthew; Marsh, Angela; Pal, Kanak; Boylston, Payton
Comitz, Richard	ECBC	Danford, Joseph
Comitz, Richard	ARL	Callahan, Gage
Hershfield, Jeremy	Gift Fund	Belardo-Flowers, Alexander; Wang, Jenny
Mitropoulos, Alex; Scioletti, Michael		Nepa, Natalie
Burpo, John; Nagelli, Enoch		Rabbia, Daniel; Mahr, Hugh; O'Brien, Sean
Burpo, John; Nagelli, Enoch		Marbach, Delaney A; Burns, Alvin; Bui, Jack
Barnhill, Jason; Richardson, Lance; Hershfield, Jeremy	WRAIR MRSN	Dao, Christopher; Hamrick, Jaqueline; Whitfield, Daniel

All CME Projects are Presentations, located in Kimsey Center
Poster Presentations will occur from 1300-1500 at Kimsey Center

Appreciation and Thanks to the CME Projects Day 2018 Sponsors:

Air Force Research Laboratory (AFRL)
 Aviation and Missile Research, Development, and Engineering Center (AMRDEC)
 Armament Research, Development and Engineering Center (ARDEC)
 Army Research Laboratory (ARL)
 American Society of Civil engineers (ASCE)
 Blakeslee
 Boeing
 Veteran Affairs, Bronx, New York

Time	Project
0730-0800	Outdoor SUAS Wind Testing – Flowtronics
0730-0800	Field Expedient Capabilities 1: Surveillance & Mitigation
0730-0800	Precast/Prepressed Concrete Institute (PCI) Big Beam
0730-0800	RAID: Radiological and Imaging Data Swarm
0800-0830	M249 Cookoff Indicator
0800-0830	Structural Insulated Panel (SIP) Hut
0800-0830	Field Expedient Capabilities 2: Remote Power Generation (DAZZLE)
0800-0830	American Society of Civil Engineers (ASCE) Steel Bridge
0830-0900	Urban Contaminant Dispersion
0830-0900	American Society of Civil Engineers (ASCE) Concrete Canoe
0830-0900	SkySupply Drone Delivery
0830-0900	Holston Army Ammunition Plant Non-Contact Cooling Water System Modernization
0900-0930	Spinning Projectile

Defense Advanced Research Projects Agency (DARPA)
 Defense Intelligence Agency (DIA)
 Department of Military Instruction DMI-USMA
 Defense Threat Reduction Agency (DTRA)
 Fahnstock State Park
 Holston Army Ammunition Plant
 Joint Special Operations Command (JSOC)
 Natick Soldier Research Development and Engineering Center (NSRDEC)
 ODIA - USMA
 Office of the Undersecretary of Defense for Corrosion Policy and Prevention
 Precast/Prepressed Concrete Institute (PCI)
 Pine Bluff Arsenal
 Tank Automotive Research and Development Center (TARDEC)
 United States Army Special Operations Command (USASOC)

Faculty Advisor	Room	Sponsor	Cadet
Whipple, Jason; Koleci, Carolann	Blanchard	ARDEC; USASOC	Andrle, Conor; Drum, Conner; Shecter, Joseph; Weller, Jeffrey
Rogers, John; Linford, Patrick	Dawkins	ARDEC	Devine, Daniel; Hicks, Andrew; Mckenzie, Matthew
Milliman, Lyle	Nowak	Blakeslee; PCI	Pape, Evan; Parmer, Benjamin
Kopeikin, Andrew; Bluman, James	Davis	DTRA	Galbreath, Samuel; Lara, Jonathan; Poston, Jarrod
Arnas, Ozer; Greulich, Samuel	Davis	ARDEC	Garner, Michael; Ryan, William; Stacey, Sawyer
Meyer, Karl; Arnold, Daniel	Blanchard	NSRDEC	Chung, Denny; Swartz, Nicholas; Waters, William; Krupp, Bradley
Norberg, Seth; Rogers, John	Dawkins	ARDEC; JSOC	Black, Jason; Hellmers, Ryan; Tarpey, Tristan
Hill, Aaron	Nowak Auditorium	ASCE	Etringer, John; Langerhans, Timothy; Nadjari, Andrew; O'Brien, Stephen; Updegraff, Austin; Kim, Chan
Benson, Michael; Vanpoppel, Bret	Davis	ARDEC	Hays, Trenton; Prasad, Dipak; Wilde, Nicholas
Gash, Richard	Nowak	ASCE	Fliegelman, Kibrom; Joshi, Ajay; Savini, Eric; Whitaker, William; Almond, Austin
Kopeikin, Andrew; Bluman, James	Blanchard	NSRDEC	Klinkmueller, Kurt; Holt, Joshua; Valentine, Andrew; Wieck, Anthony
Verma, Rahul; Miller, Matthew	Dawkins	Holston Army Ammunition Plant	Gidcomb, Ian M; Rispress, Raaqim; Willcox, William
Vanpoppel, Bret; Helmer, David	Davis	ARL; ARDEC	Schlenker, Aaron; Siegel, Noah; Valdez, Isaiah; Sullivan, Kevin

Civil & Mechanical Engineering - CME

All CME Projects are Presentations, located at Kimsey Center

Time	Project
0900-0930	DARPA SustainX (Dense Urban Squad Resupply)
0900-0930	DIA Blast Loading
0900-0930	Army Torso Load Assistance System (ATLAS)
0930-1000	Magnetic Resonance Thermometry
0930-1000	Energy Efficient Home Design - Race to Zero
0930-1000	Torso Load Tuning (VIBES)
0930-1000	Drone Dazzler
1000-1030	Active Flow Control
1000-1030	Pine Bluff Arsenal Logistics Hub
1000-10:30	Bronx VA Exosuit (ReInnovate)
1000-1030	Insensitive Munitions Test Gun
1030-1100	Aircraft Component Additive Manufacturing
1030-1100	Highway 293 Crossing
1030-1100	Boeing Counter UAS
1030-1100	Fire Suppression Round

Poster Presentations will occur from 1300-1500 at Kimsey Center

Faculty Advisor	Room	Sponsor	Cadet
Novoselich, Brian; Linford, Patrick	Dawkins	DARPA	Faircloth, Dallas; Feeney, Brian; Gerson, Daniel; Morton, Jonathan; Shuman, Troy; Wilson, Brandon
Freidenberg, Aaron; Gash, Richard	Nowak	DIA	Pauls, Nathan; Drummond, Robert; Valkenburg, Andrew; Sun, Claudia
Zifchock, Rebecca; Freisinger, Gregory	Blanchard	NSRDEC	Davis, Aaron; Leahy, Logan; Spencer, Kiersten
Benson, Michael; Helmer, David	Davis	AFRL	Ausen, Brenton; Ferrell, Angus; Hsu, Eric; Austin, Avery
Mainwaring, Todd	Nowak	CME- USMA	Purvis, Thomas; Thompson, Ander; Hanna, Emma; Decenzo, Nicholas
LaFiandra, Michael; Novoselich, Brian	Blanchard	ARL	Blevins, Erika; Conroy, Joseph; Fulton, Liam; Olk, James
Norberg, Seth; Koleci, Carolann	Dawkins	ARDEC; USASOC	Greer, John; Kreidler, Tsu; Lambert, Connor; Lamewona, Elliott
Ashcraft, Timothy; Fisk, Briana	Davis	AMRDEC	Blom, Maria; Gorman, Timothy; Ouellette, Matthew; Voronovich, Alexander
Verma, Rahul	Nowak	Pine Bluff Arsenal	Devine, Christopher; Tracy, Jonathan
Freisinger, Gregory; LaFiandra, Michael	Blanchard	Bronx VA	Murphy, Patrick; Montgomery, John; Smith, Alec
Rigney, Jeffrey; Keena, Joshua	Dawkins	ARDEC	Adams, James; Hawkins, Michael; Pritchard, Keila
Melnyk, Richard; Miller, Matthew	Davis	AMRDEC	Ezeonyeka, Uzoma; Seiler, Thomas; Chargualaf, Anthony
Wambeke, Brad; Bruhl, Jakob	Nowak	DMI- USMA	Allen, Dylan; Elliott, Jordan; Flock, Peter; Goddard, Blake; Hernandez, David; Marne, Jonah; Motichka, Tel; Oyedeji, Omotoyosi; Seamands, Ryan; Underwood, Nailah; Wolf, Bayle; Humayun, Muhammad Saad
Vanpoppel, Bret; Novoselich, Brian	Blanchard	Boeing	Hinkle, Benjamin; Long, Jadon; Pierce, Bradley; Sisler, Carlton
Keena, Joshua; Fisk, Briana	Dawkins	ARDEC; USASOC	Anderson, Joseph; Elfman, Daniel; Snowden, Thomas; Yelenosky, Mitchell

Civil & Mechanical Engineering - CME

All CME Projects are Presentations, located at Kimsey Center

Time	Project
1100-1130	Michie Stadium East Stands Re-Design
1100-1130	Combat Vehicle UnderArmor
1100-1130	M1A2 MK47 Tank Mount
1100-1130	Space Debris Mitigation
1130-1200	Corrosion Challenge
1130-1200	Fahnestock State Park Bridge - Design/Build
1130-1200	Float Bridge Protection
1130-1200	M320 Subcal

Poster Presentations will occur from 1300-1500 at Kimsey Center

Faculty Advisor	Room	Sponsor	Cadet
Hanus, Joseph	Nowak	ODIA - USMA	Baker, David; Galyean, Ty; Lee, Shelby; O'Deens, Ryan; Raebel, Ethan; Riley, Patrick; Strouse, Grayson; Toch, Charles
Freidenberg, Aaron; Gash, Richard	Blanchard	ARL	Deppe, Austen; Orr, Jacqueline
Keena, Joshua; Arnold, Daniel	Dawkins	ARDEC	Hobson, Zachary; Lynch, Liam; Milman, Leonid; Roth, Nicholas
Greulich, Samuel; Cymerman, Joseph	Davis	AFRL	Kelley, Taylor; Moeller, Brandon; Vogel, James; Zerman, Chelsea
McDonald, Kenneth; Melnyk, Richard	Davis	Office of the Undersecretary of Defense for Corrosion Policy and Prevention	Aguirre, Luis; Bahl, Carsten; Fortier, Madeleine; Ritter, Camille
Wambeke, Brad; Klosky, Ledlie	Nowak	Fahnestock State Park	Camillo, Grant; Campbell, Joshua; Gutierrez, Quinn; Isnardi, Matthew; Johnson, Jessica; Juergens, Harald; Schwanebeck, Sophia; Fowler, Christopher; Wiener, Collin
Moody, Paul; Meyer, Karl	Blanchard	TARDEC	Contreras, Elijah; Groton, Teresa; Harjo, Derick; Slife, Jacob; Riehl, Matthew
Whipple, Jason; Cymerman, Joseph	Dawkins	ARDEC	Gerlinger, Bennett; Hwang, Siun; Lee, Jonathan; Speer, Charles

Electrical Engineering & Computer Science - EECS

All EECS Projects are located at the West Point Club (Ball Room)

Appreciation and Thanks to EECS Projects Day 2018 Sponsors:

Communications-Electronic Research, Development and Engineering Center (CERDEC)
CyArk
Defense Threat Reduction Agency (DTRA)

Time	Project
0800-1130	Augmented Reality: Fortress West Point
0800-1130	Black Knight II
0800-1130	Constant Vigilance: An Attack Defend CTF Tool Suite
0800-1130	CRASE: Cyber Range as a Service and Environment
0800-1130	Intelligent Ground Vehicle Competition
0800-1130	Last-mile Optical Communications (LOCO)
0800-1130	NetGrok
0800-1130	Deep Learning / Parallel Computing
0800-1130	Pointe du Hoc Augmented Reality Staff Ride
0800-1130	Raspberry Pi + Arduino Surveillance System
0800-1130	REDHAWK-4
0800-1130	Real-Time Smart Grid
0800-1130	RAID Swarms

Engineer Research and Development Center (ERDC)
Massachusetts Institute of Technology (MIT/LL)
National Security Agency (NSA)
Office of Naval Research (ONR)
Picatinny Arsenal
Seagate

Tank Automotive Research and Development Center (TARDEC)

Faculty Advisor	Sponsor	Cadet
Boyles, Brian; Waddell, Steve; Herman, Thomas; Lensing, Julia	Seagate; CyArk	Gelashvili, Aleksandre; Sheetz, Kraig; Wilson, Ryan; Welton, Spencer; Wilton, Tyler; Causey, Nickolas; Cross, Hayden; Brawley, Virginia
Sherburne, Matthew; Grazier, Kevin; Burk, Roger		Kunze, Cole; Pritchard, Preston; Eckman, Chase; Perry, Brandon; Johnson, Carl
Harvie, David; Moody, William	Picatinny Arsenal; NSA	Bowers, Tate; Kronenberg, Abigail; Villegas, Jaryn; Yarbrough, Gabriel
Moody, William; Harvie, David	Picatinny Arsenal; NSA	Adam, Mason; Fauerbach, Kyle; Mullen, Connor; Wilkerson, Joseph
Korpela, Christopher; Larkin, Dominic; Lowrance, Christopher; Maxwell, Paul	Picatinny Arsenal; TARDEC	Johnston, Amy; Stoker, Geoffrey; Brownfield, Eliza; Harris, Caroline; Sharpsten, Taylor
Ingold, Kirk		Na, Hevin; Shares, Peter; Tate, Joshua; Cannon, Seth; Soler, Alexander
King, Kyle; Matthews, Suzanne	NSA	David, Moise; Tran, Son; Cobb, Lucas; Perez, Jayleene
Matthews, Suzanne; Hutchison, Scott; Mentis, Alexander	ERDC	Jeong, Mingu; Nesoralla, Brennan; Shopov, Nikolay; Rude, Evin
Boyles, Brian; Waddell, Steve; Herman, Thomas; Lensing, Julia	Seagate; CyArk	Austel, Jesse; Cho, Bradley; Hufnagel, Andre; Michell, Andre; Whisnant, Hannah; Wegrzyn, Karol; Worrall, Peter; Paniccia, Jacob; Marchillo, Jacob
Hanlon, Peter; Matthews, Suzanne	Picatinny Arsenal	Alejos, Andres; Calazans de Brito, Rebecca; Eckert, Connor; Ma, Michael; Ball, Matthew; Ward, Hayden
Duncan, Katherine; Sherburne, Matthew	NSA; CERDEC	Montes, Edgar; Carlson, Madeline; Pyskir, Andrew; Letsinger, Christian; Walsh, Patrick
Duncan, Katherine; Matthews, Suzanne; Barry, Nicholas; St. Leger, Aaron	CERDEC; ONR	Drakontaidis, Spencer; Stanchi, Michael; Clay, Caleb; Stark, Madison; Davis, Antoine; Glazer, Gabriel
Korpela, Christopher; Kopeikin, Andrew	Picatinny Arsenal; DTRA; MIT/LL	Jang, Byungwoo; Peng, Ziwei; Giles, Cameron; Miller, Samuel; Lara, Jonathan; Galbreath, Samuel; Poston, Jarrod; Volpe, Michael; Girardot, Alfred; Ratliff, William; Choi, Jung-Geun; Rodgers, Cort

English and Philosophy - DEP

All DEP Projects/Presentations are located in Thayer Hall (TH), 3rd floor

Time	Project
0900-1000	Academy Idol
0930-1100	Beyond Postmodernism: The Social Ontology of David Frost Wallace's 'Octet
0930-1100	The American Man: The Fascination with Masculinity in American Westerns
0930-1100	Charles Chesnutt and the Literary Inheritance of The Marrow of Tradition
0930-1100	TL;DR: Experiencing David Foster Wallace's Infinite Jest in Our Age of Distraction
0930-1100	Who is You, Black Man: Moonlight's Recreation of Black Masculinity in Film
0930-1100	Freud, Marx, and The Debutantes: Literary Theory and Debutante Societies
0930-1100	'And indeed there will be time': Slow Processing and the Difficulty of T.S.Eliot
0930-1100	The Child in the Garden
0930-1100	Orwell and Anarchism: Authority, Integrity, Hope
1100-1230	Friendship and the Limits of Loyalty
1100-1230	Civil Reciprocity and Political Reason, a Critique of Public Reason
1100-1230	A Common Good Will For Nietzsche and Kant
1100-1230	Designing and Editing A West Point Compendium of World War I Poetry and Prose
1130-1330	Film Theory
1300-1430	Character by Design - How Might We Promote Cadet Ownership of The Character Development Program Experience and Make Character Education More Engaging and Applicable?
1300-1430	Character by Design - How Might We Reduce Bias During the HIH Process of the Honor System?
1300-1430	Character by Design - How Might We Encourage Cadets to Buy Into a Value-Based System Of Character?
1300-1430	Character by Design - How Might We Increase the Transparency of WPLDS for Cadets and Other Agents Involved?

Faculty Advisor	Location	Cadet
Flurry, Jared	Robinson Auditorium	Ogburn, Langdon; Pickell, William; Sinyangwe, Noah; Leonard, Jack; Shrope, Cassidy; Carey, Matt; West, Lexi; Santiago Bonilla, Pedro; Vick, Erik; Oriani, Margaret
Harper, Dave	TH347	Seyfried, Matthew
Zupancic, Anthony	TH347	Bistrow, Anastasia
McGowan, Gerard	TH347	Comer, James
Bilsky, Brianne	TH347	Gorsuch, Logan
Eils, Colleen	TH347	Holden, Andrew
Gibbons, Jeffrey	TH 347	Moser, Robert
Query, Patrick	TH347	Riford, James
Sider, Justin	TH347	Syed, Aaqib
Query, Patrick	TH347	Wanner, Michael
Parsons, Graham	TH345	Boerner, Jessica
Mayer, Christopher	TH345	Huynh, Willis
Morris, Courtney	TH345	Ressa, Beau
Harper, Dave	TH341	Schwartz, Molly; Cavotti, Robert Spencer; Kennedy, Rober; Potter, Montgomery; Waldroup-Rodriguez, Travis; Horace, Courtney; Swartz, Matthew; Blindauer, Alexis; Brooks, Matthew; Syed, Aaqib; Kilbride, Christophe; Kruegler, Maria; Howard, Samuel
Samet, Elizabeth; Nelson, John	Robinson Auditorium	Film and Film Theory Course: EN362
Jones, Harry	TH345	Ruppel, Madison; Syed, Aaqib; Frederickson, Nathaniel
Jones, Harry	TH345	Hopkins, Kelvin; Graham, Taylor; Alfaro, Christopher
Jones, Harry	TH345	Boerner, Jessica; Marsden, Caleb; Patterson-Schiff, Kevin;Yelverton, Brett
Jones, Harry	TH345	Huynh, Willis; Laird, Colin; Ruf, Joseph

Foreign Languages - DFL

Time	Project
0800-0900	The Future of Relations between Oman and Iran after the Death of Sultan Qaboos
0800-0900	Cross Cultural Dialogue Trees ISO ARL Cultural Simulator Research
0800-1000	EU Strategic Defense in Relation to the US and Russia
0800-1000	Analysis of Megacity Conflict Through Conflicts in Rio de Janeiro and São Paulo
0800-1000	The Structure, Conditions, and Applications of Brazilian Police/Law Enforcement
0800-1000	Incentivizing Skill: Language and Culture Training in the Brazilian Army
0900-1100	La Pression dans l'Hexagone: How the Immigrant Question in France is Affecting Security and Public Sentiments
0900-1100	Language Capabilities of our Army: A Scope into the Past, Present, and Future in the Combat Setting
0900-1100	Leo Tolstoy's War Literature and Lessons Learned
0900-1100	China's Great Power Discourse: Strategic Implications
0930-1150	Cultural Implications of the US/Russian Relationship in the 21st Century
1000-1100	The Western Sahara Conflict and US National Interest
1000-1100	Winning Hearts and Minds the Brazilian Way
1000-1100	Segurança de Fronteira no Brasil
1000-1100	European Defense Policy: German and Austrian Roles
1000-1100	Is there Discrimination in Mexico?
1000-1100	Evolution of the Public's Confidence in the Spanish Military
1300-1400	Long-Term Stability of the Hashemite Kingdom of Jordan
1300-1500	Project Nowruz.Navruz: Regional Expertise Force Multiplier
1300-1600	Measuring the Effectiveness of Rehabilitative Programs in El Salvador's Prisons
1300-1600	El Tatuaje: Como Podemos Entender Una Pandilla Por El Medio De Arte Del Cuerpo
1300-1600	Soluciones Para La Reconstrucción De La Red Eléctrica En Puerto Rico Y Los Impactos Sociales
1300-1600	Puerto Rico: Objetivos Políticos en Relación con Los Estados Unidos después del Huracán María.
1500-1600	Arabic Poetry Outside of Islam's Influence

DFL Presentations are located in Washington Hall (WH), 4th and 5th floor

Faculty Advisor	Language	Room	Cadet
Zapf, Andrew	Arabic/English	WH4305	Rivera, Austin; Lipp, Jediah; Webb, Alexander
Daniel, James	Chinese/English	WH5006	Grindley, George; Roberts, Jacob; Clarkin, Christopher; Schafer, Thomas
Huxel, Kurt	Portuguese/English	WH4328	Williams, Mackenzie
Allen, Chaz	Portuguese/English	WH4328	Andrews, Lucas
Serrazes, Ricardo	Portuguese/English	WH4328	Jacob, Shelby
Allen, Chaz	Portuguese/English	WH4328	Thompson, Anthony
Ngwanza, Serge; Tonnerre, Olivier	French/English	WH4328	Kambili, Noah; Maguire, Madison; Riley, Okheem; Williams, Kristen
Enslin, Joshua	Portuguese/English	WH4327	Ballard, Courtney; Talty, Kevin; Lopes, Olivia
Merkley, Clayton	Russian/English	WH4403	Bell, Braden; Ledger, Lovett; Kauffman, Aleksandr; Matkovich, Hayden; Weiher, Emily
Gregory, John	Chinese/English	WH5006	Ngoh, George; Lawson, Michael; Rocha, Ariana; Chen, Devin; Li, Robert; Puritty, Ross; Kincaid, Sean; Harte, Neil; McGuinness, Ulysses
Mansour, Lawrence	English	TH369	Hecht, Daniel
Zapf, Andrew	Arabic/English	WH4305	Bledsoe, Christian; Dubinas, Rokas
Serrazes, Ricardo	Portuguese/English	WH4327	Singh, Anthony
Miller, Zachary	Portuguese/English	WH4327	Martir, Dennis
Simpson, Eric	German/English	WH4412	Brooks, John; Davis, Brian; Giannetta, Matthew; Horsley, Seth; Oncay, Grant; Wright, Ryan
Ramos-Ortiz, Ivan; Gray, Caro	Spanish/English	WH5002	Shelton, Nicholas
Maggin, Sherry; Ramos-Ortiz, Ivan	Spanish/English	WH5002	James, Bruce
Adams, Elissa	Arabic/English	WH5002	Taylor, Zachary; Willis, Eric; Curry, Coddie
Pendergast, John; Irani-Tehrani, Amir	Persian/Russian/English	WH5006	Dougherty, Daniel; Grammel, Andrew; O'dowd, Patrick; Panicucci, Dylan; Schmelzenbach, Claire; Sanford, Matthew; Wanner, Michael
Maggin, Sherry	Spanish/English	WH5002	Davis, Daniel; Tetro, Noah; Chabries, Joseph
Cameron, Robert; Ramos-Ortiz, Ivan	Spanish/English	WH4327	Psiaki, Elizabeth; Lackey, Kyle; Gagnon, Evan
Maggin, Sherry; Gray, Caro	Spanish/English	WH4305	Rabbia, Daniel; Williams, Carolyn
Gray, Caro; Cameron, Robert	Spanish/English	WH5006	Price, Nikita; Higgins, Madeline; Clark, Jake
Guenaien, Moez	Arabic/English	WH4305	Fossi, Derek; Evans, Samuel; Heydinger, Samuel

Geography & Environmental Engineering - GENE

All GENE Presentations are located in Washington Hall, 5th floor

Appreciation and Thanks to the GENE Projects Day 2018 Sponsors:

Army Research Lab
Defense Threat Reduction Agency (DTRA)

Time	Project
0900-1200	Using Augmented Reality for Terrain Visualization in Support of Mission Planning and Professional Development (ARS)
0900-1200	Image Analysis of North Korean Agricultural Yields over the Past 5 Years (P)
0900-1200	Automatic Photovoltaic Cell Detection (P)
0900-1200	What Role Do Migrant Workers Play in Developing Market Competitiveness in the Shenzhen Special Economic Zone? (P)
0900-1200	Child Soldiers: NGOs Role in Preventing the Use of Child Soldiers (P)
0900-1200	The Kurdish Question (P)
0900-1200	Ethnic Russians in the Baltics and the Effects of Irredentism (P)
0900-1200	Low-Impact Storm Water Improvements to a Florida Residential Community (P)
0900-12:00	Low-Impact Storm Water Improvements to Davis Barracks (P)
0900-1200	Low-Impact Storm Water Improvements to Bradley Barracks (P)
0900-1200	Design of a Potable Water Treatment System at JBLM (P)
0900-1200	Effect of Urbanization on Stream Flow (P)
0900-1200	Phytoremediation of Army Ammunition Plant Wastewater Using Algae (P)
0900-1200	Nitrogen Removal From Army Ammunition Plant Wastewater (P)
0900-1200	TARDEC Reverse Osmosis Membrane Fouling and Microbial Growth Analysis (P)
0900-1200	Scientific Studies of Antarctica (P)
0900-1200	What is the Relationship Between Time and Quality of Producing a 3-D Model with Photogrammetry? (P)

(P) Poster
(ARS) Augmented Reality Sandtable

National Geospatial-Intelligence Agency (NGA)
Program Executive Officer Ammunition (PEO Ammo)
Research Development and Engineering Command (RDECOM)
Tank Automotive Research and Development Center (TARDEC)
U.S. Army Research, Development and Engineering Command (RDECOM)

Faculty Advisor	Location	Sponsor	Cadet
Powell, William	WH5300	ARL	Marchillo, Jacob
Oxendine, Christopher	WH5300	NGA	Ward, Brenda; Taylor, Troy; Pompey, Jonathan K; Hunter, Jonathan; Martindale, Joshua; Erskine, John
Oxendine, Christopher	WH5300	NGA	Benjamin, Matthew; Sanford, Matthew; Arroyo, Jorge; Clark, Dominique; Hansen, Blake
Oxendine, Christopher	WH5300	NGA	Wang, Claire; Marchillo, Jacob; Anderson, Charles; Clark, Dominic; Duchrow, Thomas
Richmond, Amy	WH5300		Heinz, Kacie
Lohman, Andrew	WH5300		Keely, Hannah
Lohman, Andrew	WH5300		Hesse, Matthew
Dacunto, Philip	WH5300		Kissinger, Reilly
Dacunto, Philip	WH5300		Moore, Shawna; Bruce, Michael; Wyrsh, Michala
Dacunto, Philip	WH5300		Mccarty, Kristen; Calmus, Kirsten; Kissinger, Reilly; Ostlund, William
Dacunto, Philip	WH5300		Worthy, Thomas; Franklin, Beau; Rodriguez, Jason
Baker, Patrick	WH5300	PEO Ammo / CIE	Hammel, Michael
Baker, Patrick	WH5300	PEO Ammo / CIE	Yoon, Eugeen
Plante, Luke; Starke, Jeffrey; Butkus, Michael	WH5300	PEO Ammo / CIE	Mccarty, Kristen
Wallen, Benjamin; Butkus, Michael	WH5300	TARDEC	Moore, Shawna
Nixon, Christopher	WH5300		Nadolny, Ian
Irmischer, Ian	WH5300	RDECOM	Pompey, Jonathan; Taylor, Justin

Geography & Environmental Engineering - GENE

All GENE Presentations are located in Washington Hall, 5th floor

Time	Project
0900-1200	Locating & Characterizing Solar Panels Using Object Based Image Analysis (P)
0900-1200	Scaling Investigation on Reverse Osmosis Membranes (P)
0900-1200	Revolutionary Recovery: GPR Investigations at the Battle of Brooklyn (P)
0900-1200	The Effects of Butanoic Acid on Acinetobacter Baumannii, Escherichia Coli, and Staphylococcus Aureus (P)
0900-1200	Dissimilatory Nitrate Reduction to Ammonia: Effects of Solids Retention Time (P)

(P) Poster
(ARS) Augmented Reality Sandtable

Faculty Advisor	Location	Sponsor	Cadet
Oxendine, Christopher	WH5300	NGA	Kelly, Matthew; Taylor, Justin; Mueller, Peter; Biddle, Katie; Choppa, John
Wallen, Benjamin; Butkus, Michael	WH5300		Swanton, Patrick
Wallen, Benjamin; Kimball, Mindy	WH5300		Herrmann, John
Butkus, Michael	WH5300	DTRA	Nguyen, Michael; Farris, Michaela; Min, Michael
Plante, Luke	WH5300		Grogan, Ethan; Grohs, Sophia

History - HIST

All History Projects are located in Thayer Hall (TH), 1st floor

Time	Project
0900-1000	The Integration of Women at the United States Military Academy at West Point (TD)
0900-1000	Between a R.O.C. and A Red Place: U.S. Marines in North China (TD)
0900-1000	South Sudan Threat Assessment (PR)
0900-12:00	Phi Alpha Theta Table (PR)
0900-1000	The Anglo-American Intelligence Relationship: Iran 1945-1980 (TD)
1000-1100	Barry Goldwater and Conservatism (TD)
1000-1100	The American Frontier Staff Ride - 2018 (PR)
1000-1100	Liberating the Camps: A Critical History (TD)
1000-1100	The Transition of Roman Skirmishing from Republic to Empire (TD)
1100-1200	Lavender Boys: The Rhetoric of Homosexuality During the Red Scare and its Lasting Legacy (TD)
1100-1200	Augmented Reality - The Great Chain (AUR)
1100-1200	Mass Rape in Bosnia: An Act of Genocide (TD)
1100-1200	MI5's Man with the Iron Cross (TD)
1300-1400	The Sword of Treason: The Robert E. Lee Award at West Point (TD)
1300-1400	Normandy Staff Ride - 2018 (PR)
1300-1400	Creating Conditions for Genocide in Cambodia (PR)
1300-1400	Catholic Entrenchment in Ireland (PR)
1300-1600	Google Expeditions: Virtual Reality in the History Classroom (AUR)
1400-1500	Ending the Cuban Revolution (TD)
1400-1500	Augmented Reality - Point du Hoc (AUR)
1400-1500	A Revolution in Feeling: The Political Transformation of Margaret Bayard Smith (PR)
1400-1500	The Vicious Cycle of Defeatism: German Self-Destruction and American Reaction through Cinema (TD)
1500-1600	The Unger Family Under Nazi Occupation: Letters from Vienna, 1938-1941 (PR)
1500-1600	David Crockett and the 1830 Indian Removal Bill (TD)
1500-1600	Campaigning for Continued Colonialism: French Influence on American Anticolonial Attitudes, 1944-1948 (TD)
1500-1600	Implying Spying: Examining Oxford's Spies through the Success of the Cambridge Five (TD)

Faculty Advisor	Room	Presenters
Griffin, Ben	TH127	Tokarsky, Annalee
Waddell, Steve	TH179	Wenik, William
Frey, David	TH1126	Streatfield, Samir
Lovering, Richard	History Department Rotunda	
Gioe, David	TH144	Hollimon, Haley
Griffin, Ben	TH127	Brown, Micah
Kiser, Michael	TH1126	Lenton, Matthew; Smith, Rachele; Kizzie, Koi
Frey, David	TH179	Gray, Emily
Salinas, Antonio	TH144	Williams, Timothy
Griffin, Ben	TH144	Garcia, Ruby
Sculley, Seanegan; Herman, Thomas	TH1126	Causey, Nickolas; Cross, Hayden
Frey, David	TH127	Dooley, Courtney
Gioe, David	TH179	Laird, Benjamin
Lambert, David	TH127	McNair, Christian
Herman, Thomas; Garner, Christian	TH126	Brady, Matilda; Beesley, Jeremy; Brookover, Gregory; Larue, Lydia
Frey, David S	TH179	Ulley, Justin
Hoogland, Edward	TH144	Ireland, Margaret
	History Department Rotunda	Salinas, Antonio
Musteen, Jason	TH127	Johnson, Timothy
Waddell, Steve	TH1126	Worrall, Peter; Wegrzyn, Karol
McDonald, Robert	TH179	Nicholas, Brianna
Garner, Christian	TH144	Lodewick, Christian
Frey, David	TH1126	Rust, Hezekiah; Mokhtari, Sasha
McDonald, Robert	TH179	Oliver, Robert
Doss, John	TH127	Schaeffer, Joy
Gioe, David	TH144	Forktus, Erica

**All Department of Law Presentations are located in
Building 606, 4th Floor,
Center for the Rule of Law (CRL)**

Time	Project
0830-0915	Facing the Resurgent Threat: The Effort to Combat Right-Wing Terrorism in the United States Through Constitutional Cooperation (TD)
0915-1000	A Millennial’s Modest Proposal: The Law and Personal Data on the Internet of Things (TD)
1000-1045	Women and the Draft: The Selective Service System and the End of Gender-Based Restrictions on Military Service (TD)
1045-1130	Relief Found in Open-File Discovery: Preventing Brady Violations and Holding Prosecutors Accountable (TD)
1130-1245	Roundtable Discussion: Civil Rights in America 2018 (D)
1245-1305	East Asian War Crimes Staff Ride
1305-1330	San Remo & Clara Barton International Law Competitions
1330-1530	LW 495 Capstone Presentations
1500-1600	West Point Mock Trial Team Presentation

(TD) Thesis Defense (D) Discussion

Faculty Advisor	Cadet
Alcala, Ronald	Gonzales, Seth
Alcala, Ronald	Minges, Derek
Alcala, Ronald	Griffin, Austin
Bakken, Tim	Ramsdell, Joshua
Goldstein, Robert; Williams, Winston	Hug, Jason; Landers, Morgan; Higgins, Madeline; Kruegler, Maria; Bann, Gabriel; Combs, Alexander
Alcala, Ronald	Minges, Derek; Harte, Neil; Alviso, Edwardo; Ochoa, Christian; Edwards, Cayne W; Lam, Austin
Vansweringen, Scott; Jacobs, Christopher	Gonzales, Seth; Weierbach-Chainey, Luis; Ramsdell, Joshua; Aiken, Morgan; Sperry, Hunter; Palmer, James
Alcala, Ronald	Crimmins, Madelyn; Hale, Benjamin; Menelas, Michael; Ramsdell, Joshua; Weierbach-Chainey, Luis; Raus, Tala; White, Philip; Weech, Trevin; Kramer, Grant; Hulings, William; Callahan, Christopher; Maslink, Stephen; Brechtel, Aja; Ricca, Dominic; Farrington, William; Etringer, John
Strang, Brian	Dibiase, Matthew; Limp, Collin; Houng, Sebastian; Mcauliffe, Gavin; Prior, Patrick; Schmitt, Timothy; Buros, Keegan; Cone, Cooper; Shrope, Cassidy; Arderi, Ruben

Military Instruction - DMI

ALL DMI Projects Day Activities are located in Thayer Hall (TH), 3rd floor

Appreciation and Thanks to the DMI Projects Day 2018 Sponsors:

95th Civil Affairs Brigade

Assistant Secretary of Defense for Special Operations/Low-Intensity Conflict (ASD SO/LIC)

Asymmetric Warfare Group

Joint Staff (J5) Mission to the UN

Office of the Secretary of Defense (OSD)

U.S. Army Research, Development and Engineering Command (RDECOM)

Time	Project
0800-0920	Emerging Multi-Domain Battle Concepts and Their Impacts on U.S. Brigade Combat Teams (C)
0800-0920	Recruitment, Development, Promotion, and Retention of STEM Leaders within the DOD (C)
0800-0920	Swarming Tactics: Threat Evolution in the Modern Operational Environment (C)
0930-1050	Finding Gaps in Precision Fires Capabilities While Operating in Dense Urban Environments (C)
0930-1050	Evaluating UN Peacekeeping Operations (C)
0930-1050	Mission Effectiveness: An Examination of MOEs in Modern Non-Kinetic Operations (C)
1100-1220	Passion, Chance, and Reason: Applying Clausewitz to 21st Century Russian Military Strategy (TD)
1100-1220	National Will and the Acceptability of Joint Forcible Entry Operations (TD)
1100-1220	Jus Post Bellum: A Strategic Analyses of American Reconstruction (TD)
1100-1220	The Employment of Violence in Civil War (TD)
1300-1420	Lessons from Israel: Strategic Deterrence and Non-State Actors (TD)
1300-1420	Making an International Team: Variables Influencing Military Coalitions and their Operations (TD)

(C) Capstone (TD) Thesis Defense

Faculty Advisor	Room	Sponsor	Cadet
Montcalm, Richard	TH342	Asymmetric Warfare Group	Guerra, Henry; Gosselin, Connor; Ollison, David; Miller, Cory
Davis, Nathaniel	TH344	OSD	Jones, Dakota; Lancaster, Richard; Porter, Timothy; Reynolds, Jacob
Thompson, Nicholas	TH348	ASD SO/LIC	Cochran, Andrew; Hayhurst, Kristopher; Headle, Johnathon; Sanderson, Mitchell
Spencer, John	TH342	U.S. RDECOM	Nick, Spencer; Phelan, Travis; Stecker, Brian; Wagoner, Derrick
Woodbrey, Scott	TH344	Joint Staff (J5) Mission to the UN	Albrecht, Jacob; Gness, Tyler; Hetzel, Peter; Whisnant, John
Collins, Liam	TH348	95th Civil Affairs Brigade	Brenneman, Joshua; Joseph, Patrick; Martin, Steven; Radford, Christopher; Sessions, Jonathan
Collins, Liam	TH342		Jones, Bryan
Hedtke, Isaac	TH344		Ashley, Ryan
Davis, Nathaniel	TH348		Collins, Adam
Beehner, Lionel	TH369		Angel, Anamaria
Danford, David	TH369		Mahood, Kellen
Hedtke, Isaac	TH348		Beaulieu, Luke

Mathematical Sciences - MATH

All Math Presentations are located in Thayer Hall (TH), 2nd Floor

All Math projects are Poster sessions

Time	Project
0900-1200	Clustering Metrics
0900-1200	Promoting Obesity Prevention Policy: How Counties can Diffuse Innovative Preventative Health Policies
0900-1200	Using Multi-layer Networks to Assist in Disaster Response Processes
0900-1200	Mathematically Determining the Threat Posed by Emerging Technologies
0900-1200	Network Analysis and Agent-Based Modeling as a Method for Testing Counter-Terrorism Strategies
0900-1200	A Comprehensive Study of MA104: Informing Course Design Decisions with Performance, Attitude, and Survey Data
0900-1200	Microscopic Surface Geometries and Blood Clotting: A Computational Analysis
0900-1200	Are Human Bodies Really Shaped Like Fruit? Using Cluster Analysis of 3D Body Scans to Challenge Current Body Shape Classification Norms.
0900-1200	Automorphisms for Hopf Algebras of Dimension 12
0900-1200	Expansion of the CVBEM to the Third Dimension
0900-1200	Modelling Illegal Drugs as an Epidemic on the Streets of New York City
0900-1200	Stock Market Strategy Analysis
0900-1200	Modeling Cyber Warfare using Dynamic Factors
0900-1200	Node and Collocation Point Optimization for Complex Variable Boundary Element Approximations
0900-1200	Identifying Bias in Datasets for Machine Learning
0900-1200	Optimization of Scout Scheduling for a National Hockey League Team
0900-1200	Constructing Optimal Clusterings Using Mixed Integer
0900-1200	Using Context Free Grammars to Generate False Documents for Military Deception
0900-1200	Predicting Cadet Candidates' Physical Success from the Admissions Office
0900-1200	Achieving Real-Time Army Readiness using Markov Processes
0900-1200	Manually Collected Body Circumferences vs. Automated Imaging

Faculty Advisor	Cadet
Pulleyblank, William	Bassett, Maxwell
Roginski, Jonathan	Dula, Kathryn
Roginski, Jonathan	Grubaugh, Kameron
Minter, Austin; Vanatta, Natalie	Hedglin, Nolan
Roginski, Jonathan	Isham, Jordan
Scioletti, Michael	McDermott, Stephanie
Allen, Brian; Watts, Krista	Riggenbach, Zachary
Thomas, Diana; Scioletti, Michael; Kuiper, Patrick; Morse, Steven; Bigelman, Kevin	Talty, Kevin
Vega, Maria; Ivy, Samuel	Vorhaus, Abby
Boucher, Randy; Hromadka, Theodore	Bann, Gabriel
Watts, Krista; Grymes, James	Benagh, William
Laporte, Grover	Cook, Ethan
Arney, Kristin	Curry, Emily
Hromadka, Theodore; Boucher, Randy	Demoes, Noah
Thomson, Robert	Grinsell, Jonathan
Pulleyblank, William; Yankovich, Michael; Watts, Krista	Konarik, Alexis
Pulleyblank, William; Kuiper, Patrick K; Miller, Ryan	Newton, Blake
Thomson, Robert; Hickman, Randal	Rau, Kenneth
Lindquist, Joseph; Turner, Dusty	Stockdale, John
Goethals, Paul	Baumeister, Matthew
Thomas, Diana	Cheatham, Johnathan

Time	Project
0900-1200	Modeling Cardiovascular Dynamics to Help With Orthostatic Hypotension in the Upper Body
0900-1200	Cyber Attacks and Rooted Tree Models
0900-1200	Cryptographic Properties and Applications of Boolean Functions
0900-1200	Point Wise Mutual Information (PMI) to Build Domain Specific Lexicons
0900-1200	Currency Trading: Profiting From Exchange Rates
0900-1200	Creating an Evaluation Strategy for ANA Uniform Camouflage Purchase
0900-1200	Modeling Cyber Deterrence
0900-1200	The Effect of Diversity on Team Performance
0900-1200	Forecasting Key Development Positions
0900-1200	An Exploration of the Brachistochrone Problem in the Calculus of Variations
0900-1200	Harry Potter Social Network Analysis
0900-1200	Synthesizing Agent-Based Modeling and Stochastic Processes for Analyzing Combat Engagements
0900-1200	Effects of Income and Ethnicity on Gestational Weight Gain
0900-1200	Modeling Human Trafficking Across America
0900-1200	QB ISO: an Objective Quarterback Rating
0900-1200	Markov Chains and the Transportation Career
0900-1200	Implementing Tri-Ponderal Mass Index in order to Address Overweight and Obese Adolescent Populations
0900-1200	A New Encoder for Reed-Solomon Error Correction
0900-1200	Analyzing the Male Rape Myth Acceptance Scale
0900-1200	A Novel App that Classifies Adolescents with Obesity Using the Tri-Ponderal Mass Index
0900-1200	The Effect of Video Games on Sleep: A Meta Analysis
0900-1200	Analyzing Bias in Pornography Effect Studies
0900-1200	Optimal Sleep Schedule
0900-1200	Analyzing Data without Data: Insight from a Collaboration with NASA
0900-1200	Revisiting the United States Army body composition standards
0900-1200	Blood Pressure Cut-Offs that Classify Type 2 Diabetes Mellitus
0900-1200	Misclassification of Strikes and Balls in the MLB Short Description: Using Logistic Regression
0900-1200	3 Balls no Strikes: To Swing or Not to Swing?
0900-1200	Trials of Development: Is Income Inequality an Accurate Measure of Development?

Faculty Advisor	Cadet
Williams, Nakeya	Clark, Elliott
Alhajar, Elie	Eichenberger, Eli
Chung, Jong	Fauerbach, Kyle
Kuiper, Patrick	Garrett, Michael
Laporte, Grover	Gleason, Matthew
Ness, James;Laporte, Grover	Jenkins, Carissa
Arney, Kristin	Lin, Frank
Yankovich, Michael; Bromberg, Lisa	Long-Garrett, Jareth
Scioletti, Michael	Murdock, Samuel
Boucher, Randy	Niemi, Vanda
Roginski, Jonathan	Palumbo, Cali
Goethals, Paul	Pinkley, Cory
Thomas, Diana	Reed, Heather
McInvale, Howard	Rocha, Ariana
Costa, Gabriel	Ryu, Eric
Hall, Andrew	Spada, Krista
Thomas, Diana	Walas, Avery
Vanatta, Natalie	Whisnant, Hannah
Lindquist, Joseph; Korenman, Lisa; Carroll, Marjorie	Deweese, Sydney
Thomas, Diana	Walas, Avery
Thomas, Diana	Clark, Elliott
Thomas, Diana	Deweese, Sydney; Dula, Kathryn
Thomas, Diana	Murdock, Samuel; Palumbo, Cali; Talty, Kevin
Thomas, Diana	Konarik, Alexis; Pinkley, Cory
Thomas, Diana	Cheatham, Johnathan
Thomas, Diana	Curry, Emily; Niemi, Vanda
Turner, Dusty	Nicosia, Gino; Shea, Clare
Turner, Dusty	Hellmers, Ryan;Schlenker, Aaron
Giebler, Elizabeth	Giebler, Elizabeth

Physical Education - DPE

All Department of Physical Education (DPE) Presentations will be held in Arvin Gym, 1st floor

Time	Project
0930-1130	Effects of Chronic Beta-Alanine Ingestion on Anaerobic Performance
0930-1130	The Effects of Postactivation Potentiation on a 40 Meter Dash
0930-1130	The Effects of Caffeine Supplementaion on Anaerobic Endurance, Muscular Strength, and Muscular Endurance
0930-1130	The Candidate Fitness Assessment as a Predictor of Physical Performance at the United States Military Academy
0930-1130	The Effects of Sleep Duration on Reaction Time
0930-1130	Evaluating and Comparing Muscle Activation During Two Standarized Military Sit-up Assessments

All projects will be poster displays accompanied by the Cadet Capstone Team members to address any questions related to their research study.

Faculty Advisor	Location	Cadet
Jaffe, Daniel	Front Foyer	Geraghty, Kian; Dougherty, Paige; Karp, Marissa
Hewit, Jennifer	Front Foyer	Librizzi, Nathanael; Oh, Theodore; Costantini, Timothy
Jaffe, Daniel	Front Foyer	Beck, Garrett; Hinman, Theresa; Martinez, April
Hewit, Jennifer	Front Foyer	Peters-Mckeethen, Alyssa; Wilson-Lattimore, Natosha; Motes, Anna
Hewit, Jennifer; Jaffe, Daniel	Front Foyer	Comstock, Kimberly; Corke, Brandon; Radcliff, Richelle
Hewit, Jennifer	Front Foyer	Yang, Amy

Physics & Nuclear Engineering - PANE

All PANE Presentations are located in Bartlett Hall

All PANE Projects are Posters presented from 0800 to 1130

Appreciation and Thanks to the Pane Projects Day 2018 Sponsors:

Army Research Lab (ARL)
Army Research Office (ARO)

Project	Location
Characterization of the USMA Linear Accelerator's Beam	BH65
Development of Synthetic Nuclear Melt Glass Representative of an Urban Post Detonation Environment for Forensic Analysis	BH65
Search and Characterization of Micrometeorites.	BH66
Exploration of Science, Technology and Innovation Policies Impacts in Third World Countries	BH71
Imaging and Age Analysis of Star Clusters	BH66
Radiation Source Locator	BH65
Validation of MCNP6.1 Gamma Protection Factor Estimates for a Nested Steel Cube Surrogate Vehicle	BH65
Design of Airborne Robotic and Automated Systems to Assist	BH65
Design an Educational Radiography Lab Capability in the House of PANE!	BH65
Laser Induced Breakdown Spectroscopy (LIBS) for Nuclear Forensics Applications	BH65
Full-core Analysis of Accident-Tolerant Cladding for a Pressurized Water Reactor	BH65
Space Radiation Testing of Commercial Off The Shelf Electronics	BH66
Quantum Opto-Mechanical Coupling in Whispering Gallery Resonators	BH71
The Path Toward Nuclear Space Propulsion	BH71
Characterization of the SkyDel Software Defined Receiver (SDX) for the Simulation of interference on GPS signals	BH66
Automation and Improvement of the Sub-Critical Assembly	BH65
Comparison of three Common Operational Picture (COP) Platforms that Include tools Developed to Achieve Situational Awareness During Radiological and Nuclear Search and Reconnaissance Operations	BH65
Tune-able Diode Lasers for Atomic Spectroscopy	BH71

United States Department of Defense High Performance Computing Modernization Program (DoD-HPCMP)
Defense Threat Reduction Agency (DTRA)
High Energy Laser Joint Technology Office (HEL-JTO)
Nuclear Science and Engineering Resource Center (NSERC)
U.S. Army Space and Missile Defense Command (USASMDC)

Faculty Advisor	Sponsor	Cadet
Shawger, Richard		Albion, Frederick; Ritter, Bridget
Kaminski, Nathaniel	NSERC	Alexander, Justin; James, Michael; Zheng, Daniel
Olinger, Chad		Anderson, Charles
Hartke, John		Arroyo, Marcos
Fekete, Paula		Bilger, Montana; Blas, Jonah; Klehn, Spencer
Olinger, Chad	NSERC	Bouvier, Christina
Decker, Andrew	DTRA	Callas, Steven; Veldkamp, John; Gallucci, Patrick
Heider, Samuel	NSERC	Choi, Jung-Geun; Rodgers, Cort
Hasz, Ronald		Cole-Machuca, Raymond; Grieb, Michael; Sullivan, Colin
Schools, Chad	NSERC	Cole-Machuca, Raymond; Nieboer, Scott; Sullivan, Colin
Allen, Kenneth		Dela Cruz, Reniel
Book, Todd	USASMDC	Duke, Haley; Dodaro, Rachel; Messenger, Daniel
Harrell, Lee	ARO	Simon, Garrett
Pitcher, Christopher		Grieb, Michael
Loucks, Diana		Hales, Natalie; Lin, Yuka
Allen, Kenneth		Hartman, Samantha; Sexton, Garrett; Thomas, Robert
Mcmanus, Keith; Hasz, Ronald	NSERC	Ivey, Carlan; Kyburz, Joseph; Shoptaw, Hollis
Gerving, Corey		Kazmi, Jafr; Streatfield, Samir; MCGovern, Meaghan

All PANE Presentations are located in Bartlett Hall

All PANE Projects are Posters presented from 0800 to 1130

Project	Location
High Energy Laser hole Formation in Metal Surfaces	BH71
Physiological Impacts Of Long-Duration Exposure To Zero Gravity	BH66
Extended Deterrence Options	BH65
Using Differential Temperature Sensors to Calculate $C_{r}^{n^2}$ - Experimental Campaign at West Point	BH71
Integration of Gamma Ray Mapping Sensors Onboard Unmanned	BH65
Low Cost Neutron Gamma Detector	BH65
Space Based Range Concept	BH66
DFT Calculation of the Renner Coefficient for the Renner-Teller Splitting in the NCO radical: Assessing The Accuracy of Several Common Functional Families and Basis Sets.	BH71
The Effects of Rotation Speed, Engagement Power, and Inert Thermal Sinks on the Laser Heating of Cold Rolled Steel	BH71
Sling-load Mechanical Stabilization System	BH71
Carbon Nanotube Nanocomposites for High Strength and Dissipation	BH71

Faculty Advisor	Sponsor	Cadet
Hartke, John	HEL-JTO	Le, Tina; Meyers, Peter; Broussard, Jarrod; Hedglin, Nolan
Olinger, Chad		Mcniiffe, Nicholas
Hasz, Ronald		Mueller, Maxwell
Pfenning, Michael; Hartke, John	USASMDC	O'neill, Jacob
Mcmanus, Keith	NSERC	Okazaki, Ammon
Schools, Chad	NSERC	Randol, Jess; Tikku, Anant; Son, Jung
Book, Todd	USASMDC	Shifrin, Caleb; Farris, Michaela; Stapleton, Norah
Kashinski, David	ARL; DoD-HPCMP	Suarez, Matthew; Stephens, Constantine
Kashinski, David	ARO; HEL-JTO	Zheng, Daniel; Shaikh, Zain; Roll, John
Lanzerotti, Mary; Capps, Jacob; Huff, Blake; Lacarbonara, Walter; Lanzara, Giulia		Morock, Austin
Lanzerotti, Mary; Capps, Jacob; Huff, Blake; Lacarbonara, Walter; Lanzara, Giulia		Thompson, Seth

Social Sciences - SOSH

SOSH Presentations are located in Lincoln Hall (LH) and Thayer Hall (TH)

Time	Project
0800-0900	An Evaluation of Russian Anti-Jewish Pogroms Using the US Holocaust Memorial Museum's Mass Atrocity Framework
0800-0900	Race in the Honor System
0800-0900	Governors or Generals: How Prior Executive Experience Shapes Views on Civil Rights
0800-0920	Catholic Church and Third Party Roles in Armed Conflict
0830-0945	Short-run Labor Supply Responses to Income Shocks: Evidence from Alaska's Basic Income Program
0900- 1000	Misaligned Allegiances: Why Government Affiliates Defect to Misaligned Allegiances: Why Government Affiliates Defect to Separatist Movements
0900-1000	A Social Gospel of Security: Changing America's Response to Migration through American Political Development
0900-1100	Structural Influences on Susceptibility to Russian Disinformation
0945-1100	Impact of Deployment and Casualty Exposure on Applications to USMA
1100-1200	What about Space?: A Comparative Analysis Addressing the Comparison of Modern, China-centric, Space Security to the Historical, Soviet-centric Concept of Space Security
1100-1200	Political Leadership: Reconciling a Polarized Nation
1100-1215	Preventing or Funding Crime: The Effect of Lump Sum Income Payments on Crime Rates within the Eastern Band of Cherokee Indians Reservation
1300-1400	Gangsters and Diplomats: Criminal Proxies in Foreign Relations
1300-1400	International Coalitions in the Battle Against Terrorism: The Anti-Anarchist Conferences
1400-1500	Post Arab Spring Reforms and Authoritarian Resilience in Oman
1400-1500	Understanding Contemporary U.S. Foreign Policy in Latin America: The Case of China
1500:1600	Ambassador Winant, Grand Strategist: Unifying US and UK Grand Strategy during WWII

Faculty Advisor	Room	Type	Cadet
Sherlock, Thomas	LH100	Briefing	Bass, Miranda
Yon, Rachel	LH-CTC Conf. Rm.	Thesis Defense	Matlack, Seamus
Sondheimer, Rachel	Dean's Conf. Rm, Taylor Hall	Thesis Defense	Herrera, Matthew
Webb, Andrew	TH369	Thesis Defense	Tisler, Mark
Smith, Alexander	LH-OEMA Conf. Rm.	Thesis Defense	Paulo, Blaise
Winkelstein, Devlin	LH100	Thesis Defense	Bradley, Liam
Campbell, Patrick	LH-CTC Conf. Rm.	Thesis Defense	Nguyen, Duy
Deep, Alex	LH100	Thesis Defense	Dombrowski, Jonathan
Calway, Christopher	LH-OEMA Conf. Rm.	Thesis Defense	Schanep, John
Kriz, Patrick	LH100	Thesis Defense	Martin, Richard
Campbell, Patrick	LH-CTC Conf. Rm.	Thesis Defense	Reynolds, John
Smith, Alexander	LH-OEMA Conf. Rm.	Thesis Defense	Torpey, Bradley
Wilcox, Aaron	LH100	Thesis Defense	Reina, Anthony
Chambers, John	LH-CTC Conf. Rm.	Thesis Defense	Weinmann, David
Colas, Brandon	LH100	Thesis Defense	Sidhu, Christine
Kriz, Patrick	LH-CTC Conf. Rm.	Thesis Defense	Tatsuoka, Christopher
Starr, Meghan	LH100	Briefing	Suba, Madeline; Donahue, Andrew; Patula, Adam ; Allen, Melanie; Pollin, Mary; Queen, Adaya

Systems Engineering - DSE

DSE will host the 18th annual General Donald R. Keith Memorial Capstone Conference, an annual forum for cadets to present their capstone work to fellow cadets, clients, and students from other universities. This is a refereed conference with the proceedings published in coordination with the Society for Industrial and Systems Engineering. As with last year, the conference will be held in Jefferson Hall.

All DSE Presentations are located in Jefferson Hall

Appreciation and Thanks to the SE Projects Day 2018 Sponsors:

American Society of Civil Engineers (ASCE)
 Defense Threat Reduction Agency (DTRA)
 Natick Soldier Research Development and Engineering Center (NSRDEC)
 United States special Operations Command (USASOC)
 Army Research Lab (ARL)
 Defense Threat Reduction Agency (DTRA)
 Army Unmanned Aircraft Systems Project Office (PM UAS)

Time	Project
0800-1200	America's Pastime: A New Approach to Scouting Talent
0800-1200	Statistical Analysis of Successful Army West Point Football Players
0800-0830	ASCE Steel Bridge
0830-0910	Optimizing UAS Mission Training Resource Allocation through Modeling and Cost Analysis
0830-0910	Quantifying the Effects of Weapon Weight on Lethality through Holistic Modeling
0830-0910	Developing a Solution to the TRADOC Analysis Center's Big Data Problem: A Big Data Opportunity
0830-0910	CAA Capstone: The ADAPT Project
0830-0910	TALOS
0830-2110	Integrating Virtual Reality into Army Mission Planning
0830-2110	Automated Logbook
0830-0910	DoD Aircraft Maintenance Rating Analysis
0830-0910	On Mass Killing in America: Using Markov Analysis to Challenge Conventional Understanding & Policy Design
0910-0940	Ustranscom Closewatch Process Improvements: Identification of Closewatch Population and Improvement of Shipment Delivery Date Prediction
0910-0950	Uncertainty in Life Cycle Cost of Engineered Resilient Systems
0910-0950	Discrete Event Simulation and Analysis of the Plating Facility at the Corpus Christi Army Depot
0910-0950	Wheelchair Interface For Eye-Tracking (WIFE)

CAA
 Corpus Christi Army Depot (CCAD)
 U.S. Department of Defense, Corrosion Policy and Oversight Office (DOD CPO)
 Engineer Research and Development Center (ERDC)
 ERS
 Joint Improvised-Threat Defeat Organization (JIDO)
 Lockheed Martin
 PEO Ammo
 PM Soldier Weapons (PEO Soldier)
 PM Cargo Aviation (PM Cargo)
 PM UAS
 TCM Soldier
 Tobyhanna Army Depot
 Training and Doctrine Command (TRADOC)
 United States Army Corps of Engineers (USACE)
 U.S. Strategic Command (USTRANSCOM)
 White Sands Missile Range (WSMR)

Faculty Advisor	Sponsor	Room	Cadet/Student
Hughes, David		JH tbd	Fusco, Steven
Hughes, David		JH Haig Room	Long, Jadon
Hill, Aaron	ASCE	KC Nowak	Etringer, John; Langerhans, Timothy; Nadjari, Andrew; O'brien, Stephen; Updegraff, Austin; Kim, Chan
Motupalli, Jasmine	PM UAS	JH 514	Kubisch, James; Hess, Christian; Williams, Anthony
Mittal, Vikram	NSRDEC	JH 301	Byers, Justin; Leemans, Ryan; McDermott, Stephanie
Dabkowski, Matthew	TRADOC	JH 501	Rau, Kenneth; Bares, Lee; Min, Daniel; Davis, Daniel
Burk, Roger	CAA	JH 401	Tustin, Joseph; Glesener, Theodore; Schaaf, Dillon; Cook, Ethan
Gillespie, Stephen	USASOC	JH 002	Kamuzinzi, Fred; Mcculler, Shemar; McGuire, Brendan; Warnock, Blake
Morrow, Brent	ARL	JH 414	Riggins, Alec; Gilmore, Exter; Penick, Dexter; Pham, Tyler
Burk, Roger	PM UAS	JH 121	Rodenhuis, Taylor; Trainor, John; Lee, Brandon; Hoyt, Macauley
Beigh, Matthew	DOD CPO	JH 423	Grinsell, Jonathan; Jeong, David; Murray, Aliyah; Voecks, Daniel
Wisniewski, Jillian		JH 103	Riedlinger, Dillon
Hiltz, John	US-TRANSCOM	JH423	Shea, Clare; Stepan, Adam; Gabrielsen, Michael; Adams, Jermaine
Richards, John	ERS	JH 414	Mclean, Andrew; Mendel, Andrew; Ejekam, Ikenna; Newton, Blake
Lesinski, Eugene	CCAD	JH 501	Almeida, Paulo O ;Bergstein, Andre; Pogue, Billingsley G ;Reyes, Marisa
	SUNY Binghamton	JH 514	Jane Towery, Zachary Keuerleber, Aleksey Kats, Owen Santangelo and Casey Stengel

Time	Project
0910-0950	Future Vertical Lift: Engineering Tomorrow's Flight Today
0910-0950	APE 1236 Maintenance Program
0910-2150	Analysis of Cyber Security Methodologies: A Direct Comparison of Current vs Possible DoD Cyber Assets
0910-2150	Migration Dynamics
0910-2150	The Science of Soldiering
1030-1110	Design of a Decision Support System for the Scheduling of Workflow Process for a Water Utility Company
1030-1110	Maintaining an Inland Petroleum Distribution System
1030-1110	Modeling Insults to Food Security: A System Dynamics Approach
1030-1110	Origins of Intelligence: Discerning Corroboration vs. Replication in Open Source Intelligence Production
1030-1110	Remediating Nuclear Contamination through Phytoremediation
1030-1110	UHS ED Redesign
1030-1110	Understanding Mass Killing in America: A System Dynamics Approach
1030-1110	Regatta Rules Adjudication System
10:30-11:10	Design of a Ski Lift Inspection and Maintenance System
1030-1110	NOVA Solar Proposal
1110-1150	A Value Modeling Approach to Major League Soccer Expansion
1110-1150	Autonomy in Counter-IED UGVs
1110-1150	Error Identification in Defense Maintenance Data: Implementing Anomaly Detection Through Conditional Probability
1110-1150	Design of a Synthetic Voice Real Time Reporting System
1110-1150	Low Cost Electronic Measurement Device
1110-1150	Modeling Medical Staff Requirements: Balancing Workload while Satisfying Variable Patient Demand
1110-1150	Capacity Planning Team for Company X

Faculty Advisor	Sponsor	Room	Cadet/Student
Elkins, Timothy	Lockheed Martin	JH 002	Nolasco, Christian; Cullinan, Scott; Fusco, Steven; Goff, Nathan
McDonald, Kenneth	PEO Ammo	JH 121	Andrews, Tanner; Jenkins, Carissa; Kiernan, Lindsay
Mittal, Vikram		JH 103	Kumar, Sairahul
Keith, Bruce		JH 301	Akers, Cody; Ramirez, Amanda; Robinette, Haley; Wall, Patrick
Evangelista, Paul	PEO Soldier	JH 401	Gilliam, Aaron; Park, Matthew; Jaros, Peter; Young, Timothy
	George Mason University	JH 002	Christopher Pertsch V and Jose Soberanis
Hughes, David		JH 414	Bushold, Steven; McCarthy, Matthew; Muckey, Lauren; Obiomon, Egbezien
McDonald, Kenneth	DTRA	JH 501	Pitts, Clara; Santorelli, Nicholas; Woods, Trevor
Wisniewski, Jillian		JH 514	Provaznik, Daniel; Glancy, Conor; Mcdaniels, Justin; Bosse, Joseph
Elkins, Timothy		JH 423	Eichenberger, Eli; England, Rhyan; Kizzie, Kai; Badua, Sean
	SUNY Binghamton	JH 401	Lauren Kelemen, Carlos Arciniegas, Reginald Carrion, Joseph Burns, Gregory Schilling, Et al.
Wisniewski, Jillian		JH 103	Riedlinger, Dillon
	George Mason University	JH 301	Daniel Burke, Rhett Zimmer, Et al.
	SUNY Binghamton	JH 002	Katherine Barthelson, Pritika Sondhi, Et al.
	George Mason University	JH 121	Michael Ham, Ramona Rubalcava, Shakib Vafaci, William Mudd and George Donohue
Hughes, David		JH 103	Ratliff, William
Bishop, Carlee	JIDO	JH 501	O'Brien, John; Robison, Galen; Chatel, Nicholas; Wasdyke, Carrie
Evangelista, Paul	DOD CPO	JH 423	Grubaugh, Kameron; Mcafee, Nicholas; Mcgowan, Emily; Zimmerman, Zachary
		JH 401	
	SUNY Binghamton	JH 514	Gregg Martin, Eric Rice, Mandell Ross, Et al.
	US Air Force Academy	JH 002	Todd Link, Michael Rieker, Ryan Silva and Mary Zimmerman
	SUNY Binghamton	JH 301	Allyson Arias, Erin Foley, Michael Hindin, Connor Kiley and Ruan Zorgman

Time	Project
1110-1150	Application of Lean Six Sigma to Reducing Repeated Handling of Material at the Tobyhanna Army Depot
1310-1350	Addressing the MLB Draft: How Draft Strategy Can Lead to Organizational Success Over Time
1310-1350	Simulating Army Rail Yard Operations at the Port of Bremerhaven
1310-1350	Total Value Model Tradeoff Analysis of Soldier Equipment
1310-1350	Use of the Early Lifecycle Cost Estimation Model: A Guide for Users and Coders
1310-1350	Roll to Roll Inspection Platform: Development and Analysis of Optical Inspection for Flexible Thin Films
1310-1350	An Underfunded Army versus an Evolving Threat
1310-1350	Solar Powered Hydrotherapy Unit for Canine Rehabilitation
1310-1350	NetSciDraw Abstract
1350-1430	Sustaining Small Business Growth Through System Dynamics
1350-1430	Strategic Business Intelligence Framework: A Method of Analyzing Normative and Descriptive Data Signals
1350-1430	Capability Traps: A Case Study of Pershing Barracks Reconstruction
1350-1430	A System Dynamic Model Approach to Enhanced Shared Vision Planning: The Tigris-Euphrates Watershed
1350-1430	Scheduling Tissue Bank Technicians To Clean Rooms While Considering Dynamic Demand
1350-1430	Modeling Diffusion of Information in an Increasingly Complex Digital Domain
1350-1430	Social Media Image Labeling and Extraction: Using Convolutional Neural Networks to Identify Threats to National Security
1350-1430	Redesigning the PharmAssist RDSx
1350-1430	Optimizing White Sands Missile Range Test Operations
1430-1510	Modeling the Growth of Boko Haram Using System Dynamics
1430-1510	Application of the Systems Decision Process to Swarm Drone Nuclear Detection
1430-1510	Binghamton Hyperloop
1430-15:10	Testing and Evaluation Phase for the CH-47F Block II

Faculty Advisor	Sponsor	Room	Cadet/Student
Richards, John	Tobyhanna Army Depot	JH 121	Macfarlane, John-Mark; Hazelbaker, Cory; Gibson, Bradley
Wisniewski, Jillian		JH 103	Bushold, Steven
Demarest, Jeffrey	ERDC	JH 501	Bieger, Joshua; Ferrer, Jadalaine; Riedlinger, Dillon; Xu, William
Hughes, David	PEO Soldier	JH 002	Solheim, Brook; Hurley, Seamus; Mortensen, Jeremy; Ko, Shane
Ryan, Thomas; Valerdi Ricardo	ERDC	JH 423	Werner, Kyle; Raymond, Christopher; Kumar, Sairahul; Aukerman, Alexander
	SUNY Binghamton	JH 514	Nora Croutier, Ryan Cadwell, Alexander Burzynski and Justin Bové
Kewley, Robert	TCM Soldier	JH 414	Fenton, Robert; Hernandez, Richard; Nettles, Jordan; Wagner, Christopher
	SUNY Binghamton	JH 121	Katelyn Frisone, Benjamin Vanderaa, Et al.
	SUNY Binghamton	JH 401	Jake Lewis, Matthew Dabrowski, Et al.
Wisniewski, Jillian		JH 301	Fenton, Robert
Schreiner, James	USACE	JH 002	Browning, Jon; Coleman, Benjamin; Freiberg, Anders; Roman, Daniel
Keith, Bruce		JH 121	Andre Hufnagel, Connor Mullen, Saksham Gupta
Schreiner, James	USACE	JH 501	Adams, Andrew; Houghton, Michael; Smith, Courtney; Tenbrink, James
	US Air Force Academy	JH 423	Thomas Riganti, Hunter Morrow, Christopher Graham and Jackson Spalding
Wisniewski, Jillian		JH 103	Provaznik, Daniel
	US Air Force Academy	JH 414	Sheamus Larkin, Nick Forrest, Andrew Tien and Josh Radjenovich
	SUNY Binghamton	JH 401	Sean Finnegan, Ralph Diaz, Sean Kiernan, Et al.
Bond, Phillip	WSMR	JH 514	Ortiz, Andrew; Voit, John; Paul, Jon; Morris, Daizjah
Wisniewski, Jillian		JH 103	Ferrer, Jadalaine
Morales, Ricardo	DTRA	JH 414	Volpe, Michael; Ratliff, William; Girardot, Alfred
SUNY Binghamton		JH 423	Kasey Hill and Darren Silvanic
Gibson, Hise	PM Cargo	JH401	Bernardino, Marcus; Davis, Tyler; Quillen, Shawn; Washle, Scott

Inaugural Faculty Panel
Thursday, 3 MAY 2018
Haig Room, Jefferson Hall Library and Learning Center
1600-1730

Welcome and Introductions

Dean's Remarks

BG Cindy Jebb
Dean of the Academic Board

Panelists

Dr Enoch Nagelli, Department of Chemistry and Life Sciences (CLS)
Research Topic: 3D Nanomaterials for Energy Storage and Conversion

Dr Suzanne Matthews, Department of Electrical Engineering and Computer Sciences (EECS)
Research Topic: Maximizing Computing with Minimal Hardware: The Case for Single Board Computers

MAJ Dominic Larkin, Robotics Research Center (RRC)
Research Topic: Lethal Autonomous Weapons Systems

COL John Hartke, Department of Physics and Nuclear Engineering (PANE)
Research Topic: High Energy Laser Weapons Effects Research and Development

Dr Daniel Milton, Combating Terrorism Center (CTC)
Research Topic: Terrorism, Information and Propaganda, and Political Violence

Moderator: Dr Rachel Sondheimer, Vice Dean of Academic Affairs



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