The Military Operations Research Society (MORS) offers opportunities for professional development and training via courses, tutorials, workshops and the annual Symposium. Payment can be made via credit card, check, or form SF182: please check [here](#) for more information. Custom training programs are available as well; for more information, please contact Jennifer Ferat at [Jennifer.ferat@mors.org](mailto:Jennifer.ferat@mors.org) or 703-933-9074.

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88th MORS Symposium

Dates: 15-19 June 2020

Location: Online

Registration: Register and submit abstracts here

Fee:

- Early registration: $180 - $305
- Regular registration: $280 - $380

Description: The five-day virtual Symposium will cover the latest in Operations Research studies, techniques, and critical National Security issues. Completed work and work in progress are shared, and potential areas for future study are discussed. The first day is dedicated to tutorials followed by 4 days of 500+ unclassified presentations in over 40 focus areas.

Working Groups:

Homeland and International Operations
- WG 1 Strategic Operations National Security Analysis
- WG 2 Chemical, Biological, Radiological, Nuclear, and Advanced Explosives (CBRNE) Defense
- WG 3 Infrastructure Analyses, Protection and Recovery
- WG 4 Homeland Security, Homeland Defense and Civil Support

C4ISR and Net-Centric Operations
- WG 5 Information and Cyber Operations
- WG 6 Command and Control (C2)
- WG 7 Intelligence, Surveillance, and Reconnaissance
- WG 8 Space Acquisition, Testing and Operations

Joint Warfare
- WG 9 Air and Missile Defense
- WG 10 Joint Campaign Analysis
- WG 11 Land and Expeditionary Warfare
- WG 12 Maritime Operations
- WG 13 Power Projection and Strike
- WG 14 Air Warfare

Resource/Readiness/Training
- WG 15 Health Service Support, Force Health Protection, and Casualty Estimation
- WG 16 Strategic Deployment and Distribution
- WG 17 Logistics, Reliability and Maintainability
- WG 18 Manpower and Personnel
- WG 19 Readiness

For more information, contact Tina Yan at tina.yan@mors.org or 703-933-9076
WG 20 Analytic Support to Training and Education
WG 21 Operational Energy

**Acquisition and Capability Development**
- WG 23 Measures of Merit
- WG 24 Test and Evaluation (T&E) and Experimentation
- WG 25 AoAs and Capability Development
- WG 26 Cost Analysis
- WG 27 Decision Analysis

**Interdisciplinary Advances in OR**
- WG 22 Military Assessments
- WG 28 Advances in Modeling and Simulation Techniques
- WG 29 Computational Advances in OR
- WG 30 Wargaming
- WG 34 Data Science and Analytics
- WG 35 AI and Autonomous Systems

**Hybrid Warfare**
- WG 31 Operational Environments
- WG 32 Special Operations and Irregular Warfare
- WG 33 Social Science Methods and Applications

**DWG Distributed Working Groups**
- DWG 1 Human Behavior and Performance
- DWG 2 Unmanned Systems
- DWG 3 Emerging Operations Research

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**Tactical Wargaming**

**Dates:** 19-21 August 2020

**Location:** Online

**Registration:** Coming Soon.

**Description:** Coming Soon.

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**Gaming Emergency Response to Disease**

**Dates:** 8-11 September 2020

**Location:** Arlington, VA

For more information, contact Tina Yan at tina.yan@mors.org or 703-933-9076
Registration: Coming Soon.

Description: In this class, we will focus on the application of professional games to the problems associated with disease response. We will cover pandemic response games, both national and international. We will also examine problems of novel or unique organisms, biological warfare and terrorism, and public health response. The objective throughout the class will be to identify unique or challenging aspects involved in designing games involving disease response. We will also incorporate emerging lessons from the current pandemic response into our discussions.

Certificate in Critical Skills for Analytics Professionals (CSAP)

Dates: 14-18 September 2020

Location: United States Air Force Academy, Colorado Springs, CO

Registration: Register here

Fee: $2,700 - $3,000

Description: The Certificate in Critical Skills for Analytics Professionals (CSAP) is a five-part course that ensures students have the practical understanding and means to turn operational information of detailed analysis into actionable results. Students will hone their skills in researching problem sets, managing and participating in analytics projects, and communicating results both verbally and non-verbally. This course will begin by ensuring that participants understand the theoretical basis for effective and accurate presentation of project results in a military or government setting. Later courses will enhance understanding of the methods and techniques utilized in effective analysis project management and discuss best practices in overcoming challenges.

Certificate in Cyber Wargaming

Dates: 21-25 September 2020

Location: Arlington, VA

Registration: Coming Soon.

Description: How do we go about understanding operational and policy decisions about cyber? They involve a complex mix of human decisions, technical capabilities, and social interactions. As we have seen from recent events, peoples’ reaction to cyber can be as important as the capability.

One-way government and industry professionals go about understanding the complex linkages in cyber operations is through gaming. Games allow you to bring together all of these diverse aspects of cyber policy. Games place people in decision-making roles during a simulated real-world problem—historical, contemporary, or projected into the future. These “professional games” are used by decision-makers within government, industry, and academia to examine policy issues and potential outcomes. They also allow operational professionals to assess requirements, plan budgets, and practice response procedures. Professional games on cyber policy and operations are run by a

For more information, contact Tina Yan at tina.yan@mors.org or 703-933-9076
variety of agencies as part of an effort to develop national strategies, permissions, and capabilities.

In this course we examine the challenges of gaming cyber. How do you develop games that address the challenges associated with cyber? Why are cyber games inherently difficult to do well, and how do you match technical layers of game play with the operational and strategic layers? What is the role of computer simulation in cyber games, and how do cyber games differ from exercises? How do you assess player actions given the potential political, social, and technical impacts of game play?

We will do this through a combination of lectures and practical exercises. Lectures will focus on games and game design, along with the application of game design to cyber issues. We need to understand how to think about cyber technology and processes in order to build effective games. So cyber security will be discussed in this course: but this is not a course on cyber security. Practical exercises will give students the chance to experience different types of cyber gaming, with the expectation that students will research, design, and present their own cyber game as part of the course.

Successful students will learn how game design can be used to address challenges of cyber operations and policy. They will build an understanding of how to represent cyber capabilities in games, as well as build games directly addressing cyber operations. The goal is for students to become aware of the gaming tools available for cyber, and to begin to associate specific game techniques with various cyber gaming requirements.

Measuring Cyber and Information Warfare

**Dates:** 19-23 October 2020  
**Location:** Online  
**Registration:** Coming Soon.

**Description:** The purpose of this MORS workshop is to begin to define these cyber metrics by bringing key players across the cyber domain together to discuss, game plan, and determine a way ahead that incorporates the combined skill and knowledge of the community. Following the workshop, the MORS Cyber Community of Practice (CoP) will be leveraged to help track the development and refinement these metrics leading to a follow-up October 2021 “Face-to-Face” workshop.

Certificate in Wargaming

**Dates:** 19-23 October 2020  
**Location:** Hilton Mark Center, Alexandria, VA  
**Registration:** Coming Soon.

**Description:** The MORS Certificate in Wargaming is a five-part course designed to enhance analyst capability and knowledge in multiple aspects of analytical and training games, including research, design, development, execution, analysis, and reporting. The analytical games focus on the development and execution of a research design through

For more information, contact Tina Yan at tina.yan@mors.org or 703-933-9076
problem discovery and scenario development to experiment design and execution. Training games emphasize the development of learning plans and objectives to provide experiential learning for student retention. The course begins by teaching wargame theory and research design and culminates in a practicum where student teams will develop and execute their own games for assigned analytical problems.

Certificate in Excel Functions for Data Analysts

Dates: 16-20 November 2020

Location: Online

Registration: Coming Soon.

Description: Every worker must do some basic analysis, make presentations, and submit reports. Many organizations do not have the “fancy” software packages to create documents that instructional designers may have. However, most organizations have the Microsoft Office Suite.

In the past 10-15 years, Microsoft have updated the capabilities in their Office Suite, especially in Excel. This course is designed to present the basic capabilities to prepare and brief presentations and reports that their managers will understand and be able to take appropriate actions.

The student will need a laptop with the Microsoft Office Suite. During class, the instructor will present an overview of a topic, let the students work on their own to practice the topic, and then go over their results as a class. Then at the end of the course, students will be given a project with a dataset. They will have to do some basic analysis, create a brief, and present the brief to the class.

Emerging Techniques Forum

Dates: 7-10 December 2020

Location: Hilton Mark Center & Institute for Defense Analyses, Alexandria, VA

Registration: Register here

Description: The Emerging Techniques Forum (ETF) is driven to improve analysis and understanding throughout the defense community by seeking out novel and leading-edge approaches, methods, and techniques - wherever they are conceived. By sharing and incorporating the latest (and in-progress) developments across government, academia, private industry, and enthusiasts, the ETF aims to support and maintain relevant, timely, and early comprehension of lessons learned that may grow to have an outsized impact on the community at large.
Acquisition Analytics for Counter Unmanned Aircraft Systems

Dates: 2-4 March 2021

Location: Johns Hopkins University Applied Physics Lab, Laurel, MD

Registration: Coming Soon.

Description: Counter Unmanned Aircraft Systems (C-UAS) protect critical assets and events against UAS threats. UAS are being used in various conflicts around the world and have the potential to be used domestically in the US. An important objective of Department of Homeland Security (DHS) and the Department of Defense (DoD) is to cost-effectively field C-UAS capabilities that will protect these critical assets against UAS threats. This workshop will host a keynote speaker and sponsor plenaries who will create a foundational understanding of the C-UAS threat profile and ongoing efforts to field C-UAS capabilities. From this, our workshop will share information and analysis used in support of C-UAS requirements development, acquisitions, and deployment, concentrating on how to address 1) mission effectiveness estimation and assessment, 2) cost estimation, and 3) development of UAS risk analysis measures and techniques. This workshop will target DoD and DHS Requirements, Acquisition, Risk Analysis, Program Analysis and Operational Analysis communities.