



# WMD Non-Proliferation and Security

Intensive Training Course for Women in STEM

Co-organized by the James Martin Center for Nonproliferation Studies (CNS) at the Middlebury Institute of International Studies at Monterey and African Center for Science and International Security (AFRICSIS)

> Sponsors: Norwegian Ministry of Foreign Affairs Carnegie Corporation of New York John D. and Catherine T. MacArthur Foundation

> > Course Format Online

# **Reference Course Time Zone**

Greenwich Mean Time (GMT) Central European Time (CET) US Pacific Standard Time Zone (PST)

Corresponding Times Around the World http://www.timeanddate.com/worldclock/converter.html

# AGENDA

#### (Subject to change)

# Monday, 25 January 2021 | 14:45 <sup>1</sup>-19:00 GMT

# **Opening Session I**

# 15:00 -16:45 GMT (16:00-17:45 CET/07:00-08:45 PST/)

### Welcome Remarks

Ms. Jessica Varnum, Deputy Director, James Martin Center for Nonproliferation Studies (CNS)

# **Opening Statement**

Mr. Jørn Osmundsen, Special Envoy for Disarmament Affairs, Norwegian Ministry of Foreign Affairs

# **Keynote Statement**

Dr. Najat Mokhtar, Deputy Director General, International Atomic Energy Agency (IAEA)

# **Participant Introduction**

Mr. Hubert Foy, Director, African Center for Science and International Security (AFRICSIS)

# **Course Overview and Guidelines**

Ms. Margarita Kalinina-Pohl, James Martin Center for Nonproliferation Studies (CNS)

# 16:45-17:00 Virtual coffee-break

# Panel I: Weapons of Mass Destruction (WMD) Nonproliferation Challenges and Opportunities and Why it is Important for Africa

# 17:00-18:30 GMT (18:00-19:30 CET/09:00-10:30 PST)

Moderator: Dr. Målfrid Braut-Hegghammer, University of Oslo

Ms. Elena Sokova, Vienna Centre for Disarmament and Non-Proliferation (VCDNP) Dr. William Potter, Center for Nonproliferation Studies (CNS) Dr. Anna-Mart van Wyk, University of Johannesburg Mr. Hubert Foy, African Centre for Science and International Security (AFRICSIS)

# 18:30-18:45 Q & A

18:45-19:15 Day 1 Wrap-up/ Participants Virtual Lounge

<sup>1</sup>Zoom link will active 15 minutes before start time

### Tuesday, 26 January 2021 | 14:45-18:30 GMT

### Session II: Weapons of Mass Destruction (WMD) and Their Effects

### 15:00 -16:30 GMT (16:00-17:30 CET/07:00-8:30 PST)

Moderator: Ms. Nomsa Ndongwe, CNS

Introduction to Nuclear Weapons and Their Effects - Dr. Ferenc Dalnoki-Veress, CNS

Biological and Chemical Weapons - Ms. Jill Luster, CNS

Radiological Dispersal Devices as Weapons of 'Mass Disruption'- Dr. George Moore, CNS

16:30-16:45 Q & A

16:45-17:00 Virtual coffee-break

# Session III: Impacts of Nuclear Testing and Uranium Mining

### 17:00-18:00 GMT (18:00-19:00 CET/09:00-10:00 PST)

Moderator: Ms. Margarita Kalinina-Pohl, CNS

Nuclear Waste in Algeria Sands - Mr. Jean-Marie Collin, International Campaign to Abolish Nuclear Weapons (ICAN) France

Uranium Mining in Africa - Dr. Doug Brugge, University of Connecticut

Elemental: Nuclear Weapons Legacy in American Landscapes - Ms. Lovely Umayam, Bombshelltoe Policy x Arts Collective/The Stimson Center

18:00-18:15 Q & A

18:15-18:30 Participants' Virtual Lounge

# Wednesday, 27 January 2021 | 15:45-20:00 GMT

### Session IV: WMD Non-Proliferation Regime and Challenges

### 16:00-17:15 GMT (17:00-18:16 CET/08:00-09:15 PST)

Moderator: Mr. Jean du Preez, CNS

The Treaty on the Non-Proliferation of Nuclear Weapons - Ms. Gaukhar Mukhatzhanova, VCDNP

International Atomic Energy Agency (IAEA) and International Safeguards - Ms. Laura Rockwood, Open Nuclear Network

17:15-17:30 Q&A

17:40-17:45 Virtual Coffee-Break

Chemical and Biological Weapons Nonproliferation and Disarmament - Dr. Rich Pilch, CNS

# **Panel II: The Treaty on the Prohibition of Nuclear Weapons**

#### 18:30-19:30 GMT (19:30-20:30 CET/10:30-11:30 PST)

Moderator: Dr. William Potter, CNS

Ambassador Elayne Whyte, Ministry of Foreign Affairs, Costa Rica Ms. Beatrice Fihn, International Campaign to Abolish Nuclear Weapons (ICAN) Dr. Rebecca Davis Gibbons, University of Southern Maine/Project on Managing the Atom

19:30-19:45 Q & A

19:45-20:00 Participants' Virtual Lounge

# Thursday, 28 January 2021 | 14:00-19:00 GMT (15:00-20:00 CET/06:00-11:00 PST)

# 14:00-17:30 GMT (15:00-18:30 CET)

# VCDNP event "Strengthening the Comprehensive Nuclear-Test-Ban Treaty and its Verification Regime." (Optional but highly recommended)

The Vienna Center for Disarmament and Non-Proliferation (VCDNP) will hold a high-level virtual event on Strengthening the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and its Verification Regime on **Thursday, 28 January 2021,** from **15:00** to **18:30** Central European Time (CET). The event is held in cooperation with the CTBT Art. XIV Process Co-Chairs Algeria and Germany as well as the Provisional Technical Secretariat of the CTBTO. For more information about this event and registration, please visit: https://vcdnp.org/save-the-date-strengthening-the-comprehensive-nuclear-test-ban-treaty-and-its-verification-regime/

Important: All course participants need to register separately for this event in advance!

# Session V: WMD Nonproliferation and Security Mechanisms and Tools

# 17:45-18:30 GMT (18:45-20:00 CET/09:45-11:00 PST)

Moderator: Ms. Nomsa Ndongwe, CNS

Nuclear Weapons Free Zones and the Comprehensive Nuclear-Test-Ban Treaty: Complementary tools to achieve a world without nuclear weapons - Mr. Jean du Preez, CNS

Recent Developments of the African Commission on Nuclear Energy (AFCONE) - Mr. Messaoud Baaliouamer, African Commission on Nuclear Energy (AFCONE)

18:30-18:45 Q & A

# Friday, 29 January | 15:15-19:30 GMT

# Session VI: WMD Nonproliferation and Security Mechanisms and Tools (Cont'd)

### 15:30-17:00 GMT (16:30-18:00 CET/7:30-9:00 PST)

Moderator: Mr. Hubert Foy, AFRICSIS

United Nations Security Council Resolution (UNSCR) 1540 and Export Controls - Dr. Richard Cupitt, The Stimson Center

Nuclear Security Architecture - Laura Holgate, Ambassador (retired), Nuclear Threat Initiative (NTI)

Nuclear Security Index: Africa results - Ms. Samantha Neakrase, Nuclear Threat Initiative (NTI)

17:00-17:15 Q & A

17:15-17:30 Virtual coffee break

#### Interactive discussion/exercise I (with break-out groups)

17:30-18:00 GMT	Group Discussion Questions
	<ol> <li>What are the most serious CBRN threats that Africa faces?</li> <li>How should NGO, governments, and industries respond?</li> </ol>
18:00-19:00	Group presentations and general discussion Moderator: Dr. Amira A. Elabd, Egyptian Nuclear and Radiological Regulatory Authority (ENNRA).
19:00-19:15	Week 1 Wrap-Up Jean du Preez/or Margarita Kalinina-Pohl
19:15-19:30	Participants' Virtual Lounge

# Monday, 1 February 2021 |13:45-17:30 GMT

# Session VII: Science and Technology Developments and Applications 14:00-15:30 GMT (15:00-16:30 CET/06:00-7:30 PST)

#### Moderator: Ms. Elena Sokova, VCDNP

Intersection Between Peaceful Uses of Nuclear Energy and Technology and Nuclear Security -Mr. Lars van Dassen, World Institute for Nuclear Security (World Institute for Nuclear Security, WINS)

Sustainable Use of Radioactive Sources for Agriculture, Health, and Electricity Generation - Ms. Ingrid Kirsten, VCDNP

Treatment not Terror: Technology innovation to overcome the cancer care and radiological security challenges in Africa - Prof. Manjit Dosanjh, European Organization for Nuclear Research (CERN)/University of Oxford/International & Dr. Oni Balogun, Weill Cornell Medicine, New York

Civil and Scientific Applications of CTBTO Verification Technologies - Ms. Fisseha Misrak, Comprehensive Nuclear-Test-Ban-Treaty Organization CTBTO)

15:30-15:45 Q&A

15:45-16:00 Virtual coffee-break

# Panel III: The Future of Nuclear Energy in Africa

#### 16:00-17:00 GMT (17:00-18:00 CET/08:00-09:00 PST)

Moderator: Ms. Ntebatse Matube, Nuclear Energy Corporation of South Africa (NECSA)

Prof. Benjamin Nyarko, Peaceful Uses of Nuclear Energy Thematic WG, AFCONE Dr. Robert B. M. Sogbadji, Ministry of Energy, Ghana Mr. Miles Pomper, CNS Dr. Yau Idris, Director General /CEO, Nigerian Nuclear Regulatory Authority

17:00-17:15 Q & A

17:15-17:30 Participants Virtual Lounge

# Tuesday, 2 February 2021 | 15:45-20:00 GMT

# Session VIII: Chemical, Biological, Radiological, Nuclear (CBRN) Security

#### 16:00-18:30 GMT (17:00-19:30 CET/08:00-10:30 PST)

Moderator: Sylvia Mishra, Kings College London

HEU Minimization Efforts and Securing High-Activity Sealed Radioactive Sources (HASS) - Mr. Hubert Foy, AFRICSIS

Transport Security of Yellowcake in Southern Africa - Dr. Kamen Velichkov, International Science and Technology Center (ISTC) & Dr. Simon Adu, Nuclear Regulatory Authority, Ghana

17:15-17-30 Q&A

17:30-17:45 Virtual coffee-break

OPCW and Chemical Security - Mr. Dawsar Drissi, Organization for the Prohibition of Chemical Weapons (OPCW)

IFBA Model in Biological Security - Ms. Maureen Ellis, International Federation of Biosafety Associations, Canada (IFBA)

18:30-18:45 Q & A

18:45-19:15 Participants' Virtual Lounge

# Wednesday, 3 February 2021 | 15:45-19:00 GMT

### 16:00-17:00 GMT (17:00-18:00 CET/08:00-09:00 PST)

# Panel IV: COVID implications for Africa

Moderator: Ms. Maureen Ellis, International Federation of Biosafety Associations, Canada

Dr. Mona El-Shorky, Ain Shams University, Egypt Ms. Kadi Dao, National Institute of Public Health, Mali Dr. Jo-Ansie van Wyk, University of South Africa

17:00-17:15 Q & A

17:15-17:30 Virtual coffee -break (15 min)

Session IX: New Technologies: Risks and Benefits

#### 17:30-19:00 GMT (18:30-20:00 CET/09:30-11:00 PST)

Moderator: Ms. Rayna Rogers, Middlebury Institute of International Studies (MIIS)

Cyber Threats to Nuclear Security - Ms. Erin Dumbacher, Nuclear Threat Initiative (NTI)

Emerging Technologies and WMD Nonproliferation - Mr. Robert Shaw, CNS

New Tools for Proliferation Monitoring, and Nuclear Nonproliferation and Disarmament Verification - Mr. Dave Schmerler & Ms. Rayna Rogers (CNS/MIIS)

19:00-19:15 Q & A

19:15-19:45 Participants' Virtual Lounge

# Thursday, 4 February 2021 | 15:45-19:30 GMT

# **Panel V: Promoting Peace and Security Through Diversity and Gender Equality**

# 16:00-17:00 GMT (17:00-18:00 CET/08:00-09:00 PST)

Moderator: Nomsa Ndongwe, CNS

Ambassador Bonnie Jenkins, Women of Color Advancing Peace and Security (WCAPS) Laura Holgate, Ambassador (retired), Nuclear Threat Initiative (NTI)

17:00-17:15 Q & A

17:15-17:30 Virtual Break

#### Interactive Discussion/Exercise II (with break-up groups)

# 17:30-18:15 GMT

	Discussion Questions
	<ol> <li>What are the challenges women working in CBRN fields face?</li> <li>How do they overcome these challenges?</li> <li>What are the opportunities for overcoming future challenges?</li> </ol>
18:15-19:00	Group presentations and discussion (Moderator: Ms. Kaitlin Emmons, CNS)
19:00-19:30	Participants' Virtual Lounge (Guest Speaker: CRDF Global)

# Friday, 5 February 2021 |14:45-19:45 GMT

### Panel VI: Advancing the Role of Women in Security

### 15:00-15:30 GMT (16:00-16:30 CET/07:00-07:30 PST)

Moderator: Ms, Elena Sokova, VCDNP

Ms. Rhonda Evans, World Institute for Nuclear Security (WINS)

Dr. Rohan Perera, Organization for the Prohibition of Chemical Weapons

15:30-15:45 Q & A

15:45-16:00 Virtual coffee -break

#### 16:00:17:45 GMT (17:00-18:45 CET/08:00-09:45 PST)

#### International Women/Gender Initiatives (virtual "booths")

Atomic Women International Atomic Energy Agency (IAEA) Kings College London (KLC) National Nuclear Security Administration's Office of International Nuclear Security (NNSA-INS), USA United Nations Institute for Disarmament Research (UNIDIR) Women in Nuclear Global (WiN Global) Women of Color Advancing Peace & Security (WCAPS) World Institute for Nuclear Security (WINS)

17:45-18:00 Virtual coffee break

#### 18:00-19:00 GMT (19:00-20:00 CET/10:00-11:00 AM PST)

Closing Remarks and Ceremony (Dr. Bill Potter, Mr. Hubert Foy)

19:00-19:45 Participants Virtual Lounge