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# **INMM ACSS**

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**Nuclear Security  
Training Course**

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## Course Description

### **i. Introduction**

The Institute of Nuclear Materials Management (INMM) branch at Jordan University of Science and Technology (JUST) is committed to advancing quality nuclear materials management practices through the advancement of scientific knowledge and technical skills of those who have an interest in the best, safe and secure nuclear materials management. The INMM JUST chapter is dedicated to provide many great opportunities for the students that would enhance their experience and knowledge on the best, safe and secure practices of nuclear materials managements. Such opportunities can be created through conferences, workshops and training courses.

The Arab Institute for Security Studies (ACSIS), more specifically the Nuclear Forum, is committed to develop human capital and encourage research and education on nuclear issues as well as other forms of weapons of mass destruction. The Nuclear Forum contribution to various workshops and activities is facilitated via a longstanding partnership with NTI.

### **ii. Objective**

This training course on the fundamentals of nuclear security will provide participants with theoretical and practical aspects of the basics of nuclear security science.

Selected topics that will be introduced in this course are based on the IAEA, WINS and NSSEP nuclear security educational electronic program.

### **iii. Format and topics**

The training course is a 15 hours in total duration, 4 hours a week, 2 hours per a lecture. Each lecture will include both theoretical and practical part, where a study cases and security exercises will be introduced as a practical aspect of nuclear security training. Assignments will be requested by lecturers after each lecture, and will be designed based on the subject that it was already taught.

This course consists of a contribution made by ACSIS, the research includes a final ceremony and certificates awarding.

### **iv. Course syllabus**

#### **a) Introduction**

- Basic definitions
- Goals and objectives
- IAEA nuclear security plan

#### **b) Interrelationships between security, safety and safeguard**

- Synergies of nuclear security, safety and safeguards.

#### **c) Nuclear threat by non-State actors**

- Evolution of the nuclear threat:

- Conventional adversary acts;
  - Past nuclear threat;
  - Current nuclear threat;
  - Attributes of potential adversaries;
    - Motives and goals;
    - Capabilities;
    - Opportunities;
    - Tactics and methods;
    - Funding;
    - Examples of adversaries.
- d) Basic elements of nuclear security
- Prevention;
  - Transport security;
  - Detection;
  - Response;
  - Information security.
- e) Nuclear Security Culture
- The awareness of institutions and the general public on nuclear security culture;
  - The establishment attitudes and beliefs in an organization;
  - Behavior of assigned personnel;
  - Formal adequate working methods;
  - Organizational and professional culture;
  - Model for implementation of nuclear security culture at various types of organizations and institutions responsible for nuclear security
- f) Inside threat
- Identification of potential insider threats
  - Target identification
  - Measures against possible insiders
  - Human reliability
    - Human motivation and insider threat
    - The importance of leadership
    - Mitigate Risk
- g) Nuclear non-proliferation regime
- Goals and objectives;
  - Treaty on the Non-Proliferation of Nuclear Weapons
  - International safeguards.

**v. Course timeline**

1 <sup>st</sup> module	25 September / 2017
2 <sup>nd</sup> module	27 September / 2017
3 <sup>rd</sup> module	2 October / 2017

4 <sup>th</sup> module	4 October / 2017
5 <sup>th</sup> module	9 October / 2017
6 <sup>th</sup> module	11 October / 2017
Ceremony and final lecture	During 15-19 October / 2017

**vi. Course based on**

- IAEA technical guidance publications on nuclear security, series No.12: "Educational Programme in Nuclear Security".
- IAEA implementing guide publications on nuclear security, series No.8: "Preventive and Protective Measures against Insider Threats ".
- IAEA implementing guide publications on nuclear security, series No.7: "Nuclear Security Culture ".
- WINS international best practice guide publications on People in Nuclear Security, series No.3.4:" Managing Internal Threats".
- WINS international best practice guide publications on People in Nuclear Security, series No.3.2:" Human Reliability as a Factor in Nuclear Security ".
- WINS international best practice guide publications on Nuclear Security Programme Organisation, series No.1.4:"Nuclear Security Culture ".
- NSSPI online courses on Nuclear Security Category, title: "Threats to Nuclear Security".
- NSSPI online courses on Nuclear Security Category, title: "Nuclear Security Culture".
- NSSPI online courses on Nuclear Security Category, title: "Insider Threats".

**vii. Working language**

Arabic and English

**viii. Venue Working language**

The training course will be held at the Nuclear Engineering Department at the Jordan University of Science and Technology.

**ix. Lecturers**

**Mr. Almntaser Albluwi**

President of INMM JUST chapter.

**Mr. Sam Hickey**

Researcher at the Arab Institute (ACSIS).

**Mr. James Smith**

Researcher at the Arab Institute (ACSIS).

**Dr. Ayman Khalil**

Director of the Arab Institute (ACSIS)