

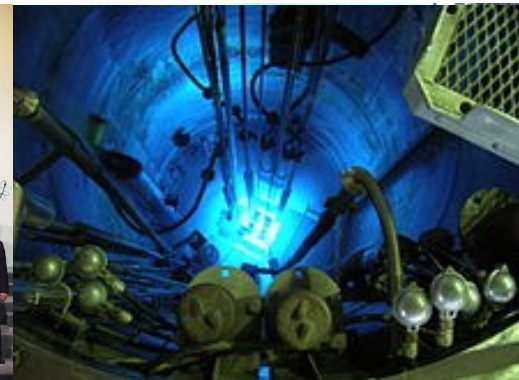
Master of Science Program in Nuclear Security (MiNS) – A Project Overview and Future Challenges

Prof. Dr. Friedrich L. Holl – November 15, 2017



Presentation overview

- MiNS at a glance
- Concept and content
- Program contributors
- Educational partnerships
- Certificate program





MiNS at a glance

Master of Science (M.Sc.) from Brandenburg University of Applied Sciences

90 ECTS points

English

Required: Bachelor & work
experience

6 courses

3 terms (full-time)

5 terms (part-time)

Digital distance and
e-learning

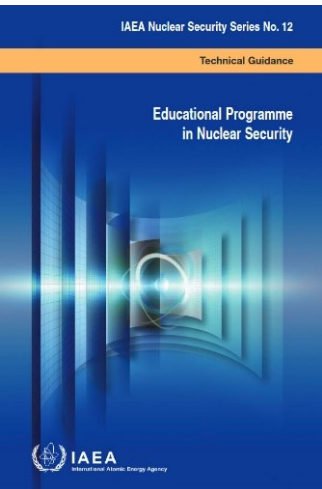
Target group:

e.g. international diplomatic staff, security professionals,
employees of regulatory authorities, nuclear security/safety officers
in national authorities, academia

Tuition fees: 16,959 €



Innovative program



- Curriculum is based on the lessons learned from the pilot EU program "Master in Nuclear Security", the results of the internal revision process of IAEA NSS 12 and the teaching materials of INSEN
 - **Digital distance-learning** Master provided as virtual blended learning courses with "academic letters" (digital study material; online available)
- No presence at Brandenburg University required
- Classroom courses of partner institutions can be integrated
- Close **cooperation with international experts** from renowned institutions (INSEN members)



Pedagogical concept: **Virtual blended learning**

- **Self-study** (academic letters and e-learning modules)
- **Virtual classrooms** and **mentoring** using web-based instruments such as
 - video-conferencing
 - e-learning systems with interactive functions
 - social media
- **Exams:**
 - Online
 - At partner universities
 - Conducted by Goethe Institutes
- Provided by international partners
- Oriented according to different time zones



Program contributors



TECHNISCHE
UNIVERSITÄT
WIEN

- Dr. Johannes H. **Sterba**, Technische Universität Wien – Atominstitut, Austria (*also a program co-manager*)
- Dr. Jason T. **Harris**, Purdue University, U.S.
- Dr. Christopher **Hobbs**, King's College London, Department of War Studies, Centre for Science and Security Studies (CSSS), U.K.
- Dr. Edward J. **Waller**, University of Ontario Institute of Technology, Canada
- Dr. Craig M. **Marianno**, Texas A&M University, Department of Nuclear Engineering, and Nuclear Security Science and Policy Institute (NSSPI), U.S.



Curriculum

Course	Module	ECTS
Security Management	Nuclear Security Management (<i>e-learning course</i>) National Security and Counterterrorism	12
International Law and Risk Assessment	Threat Assessment and Planning International Cooperation, Legal Framework and Governance	12
Fundamentals of Mathematics and Technology	Physical Protection (<i>e-learning course</i>) Computer Security (<i>e-learning course</i>)	12
Nuclear Security	Nuclear Security in Transport and Storage Detection and Response to Nuclear and Other Radioactive Material out of Regulatory Control	12
Compulsory Facultative Courses (=electives)	Nuclear Forensics, Import/Export and Transit Control Mechanism and Regime, Nuclear Security at Major Public Events	9
Research and Academic Working	Research Paper Project	12
Master Thesis		21



Outcomes for participants and employers

- MiNS prepares participants to use the appropriate analytical tools to make **thorough decisions** in the various areas of nuclear security.
- MiNS students will receive solid knowledge in nuclear security, which enables them to find synergy in thinking between **security, safety and business, as well as risk management and corporate governance.**
- MiNS will enable participants to work at a **strategic level** within the field of nuclear security.
 - *MiNS is an effective way of educating and developing strategic talent and nuclear security managers in various functions.*



How to participate



- Pass the suitability procedure of uni-assist (<https://www.uni-assist.de>)
 - Cost 2017: € 75,00
 - Processing time: 6 weeks to 3 months
- Signing a contract between ISS and the student
 - 3 times € 5,653; must be paid before start of lectures (access authorization per semester)
 - Includes all study expenses (i.e. no additional cost for examination)
 - ISS assures the delivery of study content for 5 years
- After signing the contract:
 - Possibility to apply for scholarships



Scholarship opportunities

EU CBRN Centres of Excellence (CoE)

- Groups of nation states in a region can apply.
- Via regional Centre of Excellence in their region
- IAEA and ISS could support such initiatives.
- ISS could support the project management of such an initiative and application.
- Successful implementation for the Asian region in the past.
- Focus of CoEs is now on Africa.





Nuclear security certificate program

- Besides the “full” Master’s program, we provide **bespoke certificates in nuclear security** fitting individual needs.
- Each content module or course can be studied without the formal prerequisites (bachelor degree etc.).
- Examinations need to be passed.
- Certificates for modules can be used for a full MiNS study later.
- Fee for certificate: 2,500 € (12 ECTS)
- **Outcome:** individual composition of modules which strengthen the knowledge base of participants, widen their academic expertise and fulfill the regulatory requirements in terms of scientific education in nuclear security.





More information & contact

Find more detailed information on

www.mins.study

There you can also find a contact form to request info on the application procedure for the next term (spring 2018) etc.

MiNS – Point of Contact:

Marco Macori

ISS Research Fellow

Email: macori@th-brandenburg.de

Phone: +49 331 58148330





Contact information

Prof. Dr. Friedrich Holl, Co-Director, holl@th-brandenburg.de

Guido Gluschke, Co-Director, g.gluschke@uniss.org

Prof. Dr. Ivo Keller, Professor at Brandenburg University of Applied Sciences, ivo.keller@th-brandenburg.de

Marco Macori, Research Fellow, macori@th-brandenburg.de

Dmytro Cherkashyn, Nuclear Security Scientist, d.cherkashyn@uniss.org

ISS Office phone: +49 331 58148330

Thank you for your attention!

