

Master in Nuclear Security (MiNS) at the Brandenburg University of Applied Sciences –

A program overview with a
focus on curriculum and international
partner framework

Master in Nuclear Security (MiNS)

- Program overview
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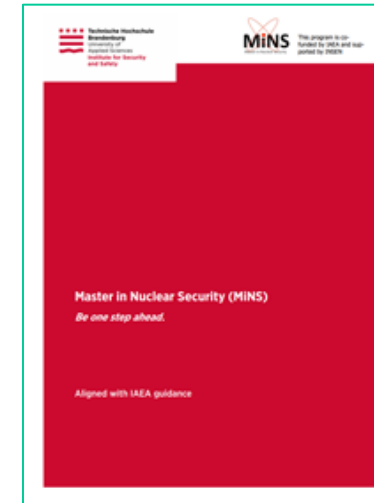


MiNS: Career paths

	Job	Further in-depth academic work	Ph.D.
90 ECTS	Master Security Management (M.Sc.) - Nuclear Security		
At least 210 ECTS	Documentary proof of knowledge on nuclear energy and radiation protection		
	Practical work experience		Master's degree
	Other degree	Bachelor's degree	

Master in Nuclear Security (MiNS)

- Addresses students and professionals
- Requires a relevant Bachelor degree and one year of relevant work experience
- Starts on **March 1, 2017**



- MiNS builds upon the **lessons learned** from the previous pilot program "Master's in Nuclear Security" (TU Delft), in which Brandenburg University was a project partner.

MiNS at a glance

- Accredited Master of Science (M.Sc.) from Brandenburg University
- Distance Learning
- 90 ECTS points
- 6 modules
- 3 terms (full-time) or 5 terms (part-time)
- e.g. bachelor students, diplomatic staff, security professionals, employees of nuclear installations and industry

Curriculum

Module	Course	ECTS
Security Management	Nuclear Security Management 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 Computer Security	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)	CFC I, II, III	9
Research and Academic Working	Research Paper Project	12
Master Thesis		21

Master in Nuclear Security (MiNS)

- Innovative program
 - Curriculum will be based on the results of the internal revision process of IAEA NSS 12 and the teaching materials of INSEN
 - “Paper”-based **distance-learning** Master
 - Academic-letters (study material; online available)
 - Provided as blended learning courses
 - No presence at Brandenburg University required
 - (Non-distance/classroom) courses at partner institutions can be integrated
 - Close cooperation with **international experts from renowned institutions** in the field of nuclear security (all INSEN-members)

E-learning

- Three courses will be provided as e-learning:
 - Computer Security
 - Nuclear Security Management
 - Physical Security
- Objective is to provide all courses as e-learning in the foreseeable future
- E-Lectures always together with blended learning

Blended learning

- **Web-based instruments** such as social media, e-learning systems for distance learning and video-conferencing will be used
- Virtual classrooms and mentoring
- Oriented according to different time zones
- Possible restriction: availability of bandwidth
- Provided by international partners

Program contributors

- 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. Johannes H. Sterba, Technische Universität Wien – Atominstitut, Austria
- Dr. Edward J. Waller, University of Ontario Institute of Technology, Canada

Master in Nuclear Security (MiNS)

- The mode of study underlines the Master's uniqueness, as students will be able to participate in the program from anywhere in the world and at certified educational institutions.
- MiNS prepares participants to use the appropriate analytical tools to make thorough decisions in the various areas connected to 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.

Master in Nuclear Security (MiNS)

- MiNS will enable participants to work at a strategic level within the field of nuclear security.
- Apart from Bachelor students, this applies, for instance, to international diplomatic staff, security professionals, employees of nuclear installations and industry, of research/academic institutions or of regulatory authorities, as well as nuclear security/safety officers in national authorities and federal ministries.
- In a nutshell, the Master's program is a cost-effective way of educating and rewarding nuclear security managers and strategic talent in various functions.

Certified educational partners

- Relevant for educational institutions that offer a Master's program or courses related to nuclear security based on NSS 12
- Opportunities for collaboration with MiNS
 - by providing an elective course (most elective courses shall be offered in cooperation with a wide range of international universities and research institutions)
 - through ISS accrediting your course(s) for MiNS
 - by accrediting MiNS courses to enrich your curriculum
- Sign a Memorandum of Understanding with ISS

Partnering and cooperation

- Joint or double degree using courses of MiNS (for distance or classroom learning)
- Brandenburg University accepts your course(s) with x ECTS and, thus, your student reduces his workload in MiNS.
- Master thesis can be accepted by both institutions (if it's written on nuclear security).
- You include online course(s) from MiNS into your own Master's program.
- You provide the blended learning part of MiNS at your university for MiNS students.

Nuclear security certificate program

- **Become a partner in the ISS' nuclear security certificate program**
 - Besides the “full” Master’s program, we’ll develop bespoke certificate programs in nuclear security fitting individual needs.
 - individual composition of courses which strengthen the knowledge base of participants, widen their academic expertise and fulfill the regulatory requirements in terms of scientific education in nuclear security.

Supporting and promoting MiNS

- **Promote MiNS**

- during one of your events
- during a relevant event that you are participating in
- recommend MiNS or provide access to your contact network

- **Support MiNS**

- as a cost-free expert by providing your valuable expertise on a pro bono basis to the next generation. For instance, as a guest lecturer for an additional elective course.
- provide internships or work opportunities

Contact information

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