POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Self-Assessment of Nuclear Security Culture [S2EJ1>SKB]

Course

Field of study	Year/Semester
Nuclear Power Engineering	1/1
Area of study (specialization)	Profile of study
–	general academic
Level of study	Course offered in
second-cycle	Polish
Form of study	Requirements
full-time	elective

Number of hours

Lecture	Laboratory classes	Other
15	0	0
Tutorials	Projects/seminars	
0	0	

Number of credit points

1,00

Coordinators

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Lecturers

Prerequisites

1 Knowledge: The student has a basic knowledge of nuclear security and security management in the nuclear power industry, understands the significance of nuclear security issues, in particular the risks involved and ways of enhancing nuclear security . The student has a basic knowledge of nuclear security culture self-assessment. The student has a basic knowledge of research methods (quantitative and qualitative). 2 Skills: Student knows how to obtain information from a variety of sources and integrate the information obtained, interpret it, and make inferences and formulate and justify opinions. Student knows how to apply the acquired knowledge in different scopes and forms. The student knows how to obtain information from various sources and integrate the information obtained, interpret it, as well as make inferences and formulate and justify opinions. The student knows how to use the acquired knowledge in different scopes and forms. Students will be able to prepare and deliver a short presentation on the results of the task, communicating using specialist terminology, taking part in a debate, presenting and evaluating various opinions and positions and discussing them. The student is able to use the research methods learnt. 3 Social competences: The student is aware of the need to continuously update and complement knowledge and skills. The student is communicative in interpersonal relations.

Course objective

To master the basic knowledge and skills of self-assessmentnuclear security culture implementing nuclear security culture self-assessment. To independently carry out the self-assessment of nuclear security culture.

Course-related learning outcomes

Knowledge:
The student has the knowledge necessary to understand and carry out a self-assessment of security culture in the nuclear power industry.
The student has knowledge of the role of the state, organisations and other actors in shaping a nuclear security culture.
The student has a structured and theoretically underpinned knowledge of the rationalisation of the nuclear security culture self-assessment and understands its importance in strengthening the nuclear security culture.
The student has a basic knowledge of the nuclear security culture self-assessment process, knows the methods and tools for security culture self-assessment.
The student has knowledge of non-technical aspects of nuclear security , in particular the self-assessment of nuclear security culture, and understands its essence and importance.

Skills:
The student analyses proposed solutions to specific problems of nuclear security culture self-assessment implementation, proposes appropriate research methods and tools, in this respect.
The student has the ability to understand and analyse social phenomena.
The student has the ability to apply the knowledge acquired in different scopes and forms, extended by a critical analysis of the effectiveness and usefulness of the knowledge applied.

Social competences:
Student is aware of the importance of, and understands the non-technical aspects and implications of the engineer's activities, including their impact on nuclear security.
Student is aware of the importance of behaving in a professional manner, following nuclear security rules and procedures.
Student is able to make a substantive contribution to the preparation of a self-assessment of the nuclear security culture.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lectures
Written exam during the last class of the semester. The assessment is intended to test the student's knowledge and involves answering several questions.The condition for obtaining credits for lectures is to obtain at least 50% of the maximum number of points.

Programme content

Nuclear security culture self-assessment methodology.
Implementation of the nuclear security culture self-assessment.
Case studies.

Course topics

Objectives and benefits of implementing a nuclear security culture self-assessment. Characteristics of the elements of a nuclear security culture self-assessment. Nuclear security culture self-assessment process.

Teaching methods

Lecture delivered remotely using synchronous access methods.
Lectures: multimedia presentation.

Bibliography

Basic:

1. Self-Assessment of Nuclear Security Culture in Facilities and Activities, IAEA Nuclear Security Series No. 28-T, IAEA Vienna, 2017.
2. Nuclear Security Culture, IAEA Nuclear Security Series No. 7, Implementing Guide, IAEA Vienna 2008.
3. Enhancing nuclear security culture in organizations associated with nuclear and other radioactive material, IAEA Nuclear Security Series No. 38-T, IAEA Vienna, 2021.

Additional:
1. Murray R.L., Nuclear Energy (6th Ed.), Elsevier, Amsterdam 2009.

Breakdown of average student's workload

	Hours	ECTS
Total workload	30	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	15	0,50