Ruhr Master School
of Applied Sciences

Dieses Wahlpflichtmodul ist ein Angebot der:

Fachhochschule Dortmund
University of Applied Sciences and Arts

European Master in Project Management

Module J Management Systems and Audit

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STIFTUNG MERCATOR

Module J Management Systems and Audit

Code Number	Semester	Duration	ECTS-Credits
94301	Sem. 2	1 Sem.	6

Type of lecture	Language of instruction	Frequency	Semester hours per week
Elective course	English	Annually - ST	4

1	Course Title	Contact hours (h)	Self-study (h)	Total workload (h)	SWS
	Management Systems and Audit	**60**	**120**	**180**	**4**

2 Content

This course addresses the organisation of processes related to questions of health, safety and environment as well as energy. It especially focusses on the introduction and operation of international management norms which deal with these topics.

Managing safety, health and environmental issues is not only regulated by many laws and thus mandatory for most societies in the world, but also an important factor not to endanger a project. Besides the direct economic impact of failures in this area a consistent management of safety, health and environment shows a company's attitude – and a project manager's personal attitude – towards its employees and towards the society in general.

The use of energy and connected with it the ecologic impact of it are becoming more important for our future world. This is taken into account in legislation – not only in Germany – which focusses on replacing fossil fuels and enhancing the efficiency of energy use. A part of this legislation explicitly stresses the importance of efficient management processes by giving financial incentives.

Norms are used on a national and transnational basis to define internationally respected standards for technical equipment but also for management processes. Management of health and safety is dealt with in ISO 4500x, environmental management in ISO 1400x and energy management in ISO 5000x.

This course focusses on the implementation and operation of management processes for management systems and audit as given by the above mentioned norms. It also emphasis the integration of management systems and audit topics in project management.

After a general introduction and motivation, different laws and regulations (within and outside the EU) and different tools and techniques for project work are discussed. The international diversity of the students allows the comparison of rules and regulations and also of management traditions of different countries and companies.

Similarities and differences in the mentioned norms and their implementation are worked out. Tools and techniques to implement the norms and make efficient use of the created management structures are discussed. Special regard is taken in the

	advantages to not only implement one management norm but to implement a series of norms in an enterprise. The course includes case studies and role play activities applying the theory in situations arising from either the implementation of management structures in a company or from typical project management situations concerning questions of management systems and audit. 1. Theoretical Foundation 1.1 Management of Health, Safety and Environment 1.2 Energy Management 1.3 Management Traditions and Company Reports 1.4 Laws and Regulation 1.5 International Management Norms for Health, Safety, Environment and Energy 1.6 Project Management Basics 2. Practice/Case Studies 2.1 Definition of Case Studies/Role Plays 2.2 Management Tools and Techniques 2.3 Implementation and Operation of Management Norms 2.4 Health, Safety, Environment and Energy in Project Management
3	**Learning Outcomes / Competencies** **3.1 Professional Competencies** **3.1.1 Knowledge** The students • can explain the importance of management systems and audit management for a company • know laws and regulation concerning these topics in Germany, Europe and beyond • know the international management norms for management systems and audit and can explain the reasoning for and the structure of these norms • can explain company responsibilities for management systems and audit and the elements of implementing management processes for these • know management tools & techniques needed in project work **3.1.2 Skills** The students are able to • analyze given sets of rules and regulations on management systems and audit • implement management processes for management systems and audit • analyze and establish concepts on management systems and audit in teams & projects • develop and maintain management systems and audit processes and guidelines according to given company & country rules and regulations and international management practice • develop a working culture in their projects or in their company as responsible for management systems and audit **3.2 Personal Competencies** **3.2.1 Social Competencies**

	Students • train to reflect on the impact of their work and their projects • are able to lead discussions and bring conflicting ideas and goals to a consensus • reflect on ecological, economic, societal, legal and political aspects as well as on the ethical aspects and compare these within the international and intercultural environment of the course **3.2.2 Autonomy** Students • apply their judgement on controversial topics and learn to lead a team to a consensus
4	**Teaching and Training Methods** • Lectures and e-learning material will introduce students to concepts, methods and tools • Group work using case studies and role plays will be used to work on the development and implementation of management processes concerning management systems and audit as well as integrating management systems and audit in project work. • Homework to add individual contributions • Presentations to communicate results
5	**Prerequisites for Admission** **Formal: -** **Knowledge and Competencies: -**
6	**Assessment** • 75% contributions within the course (group and individual work in role play and case studies, individual paper on research topic) • 25% written or oral examination at the end of the course
7	**Requirements for Award of Credits** Successful completion of examination, scientific paper and presentation
8	**Module used in other programmes** Master in Energy Systems (EST)
8	**Weighting of the mark for the final grade** EuroMPM (3 Sem.): 6,6 % (6/66) x 73 EuroMPM (4 Sem.): 6,8 % (6/66) x 75
10	**Module Leader** Prof. Dr. Reimann Prof. Dr. Füg
11	**Literature** • Heras-Saizarbitoria, I. (2018): ISO 9001, ISO 14001, and New Management Standards, Springer

	• ISO standards for ISO 4500x, ISO 1400x, ISO 5500x • Laws and Regulation on Health, Safety, Environment and Energy Project Management: • Pardy, W.; Andrews, T. (2019): Integrated Management Systems: Leading Strategies and Solutions, Bernan Press, 2nd edition • Rossiter, A.P.; Jones, B.P. (eds) (2015): Energy Management and Efficiency for the Process Industry, Wiley, Hoboken • Smith, C.B.; Parmenter, K.E. (2016): Energy Management Principles, 2nd ed., Elsivier, Amsterdam