

COURSE OUTLINE

(1) GENERAL

SCHOOL	ENGINEERING		
ACADEMIC UNIT	DEPARTMENT OF MINERAL RESOURCES ENGINEERING		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	MRE603	SEMESTER	6
COURSE TITLE	INNOVATION AND ENTREPRENEURSHIP		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures		3	4
Labs		1	1
Total		4	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Required, general background		
PREREQUISITE COURSES:	There are no prerequisite courses		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://mre.uowm.gr/wp-content/uploads/sites/6/2019/07/%CE%9C%CE%9F%CE%A0603.pdf		

(2) LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p>Consult Appendix A</p> <ul style="list-style-type: none"> • Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area • Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B • Guidelines for writing Learning Outcomes <p>Students should be able to:</p> <ul style="list-style-type: none"> • develop advanced knowledge on how to assess business opportunities and an in-depth understanding of what typically characterize successes and failures • develop advanced knowledge about key processes necessary to bring new products and services to market and key challenges facing the entrepreneur at different stages of the entrepreneurial voyage • develop an understanding of scientific research methods and theories relevant for the field
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General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	Project planning and management
Adapting to new situations	Respect for difference and multiculturalism
Decision-making	Respect for the natural environment
Working independently	Showing social, professional and ethical responsibility and sensitivity to gender issues
Team work	Criticism and self-criticism
Working in an international environment	Production of free, creative and inductive thinking
Working in an interdisciplinary environment
Production of new research ideas	Others...

- have improved your interpersonal and collaborative skills
- can effectively combine your understanding of technology and entrepreneurship in a cross-disciplinary fashion to identify and develop attractive opportunities within your field of experience
- can write reports and communicate the results in a professional manner
- are able to plan, organize, and execute a project or new venture with the goal of bringing new products and service to the market

(3) SYLLABUS

Entrepreneurship and business, business conception and brainstorming, key concepts: technology, technology management, invention, creativity, innovation, innovative ideas, the concept of technological innovation, the measurement of innovation, the process of innovation, innovation models (Schumpeter, Tomatzky, Kline, etc.), innovation management, business incubators, technological parks and brownfields, innovation management tools, Porter model evaluation, copyright management, spin-off companies, case studies, national and regional innovation systems. Business plan preparation methodology, market research, business opportunity research, supply and demand analysis method, business plan financial planning, business plan budget, costing, pricing policy, investment decisions, marketing plan, use of information and communication technologies, business partnerships, business creation stages, types of business (individual, OE, Ltd., SA, holding companies), financing for starting new businesses (seed capital, venture capital, business angels, etc.), management of business names (brand names, trademarks), preparation of business plan, case studies. Mining and quarry innovation and entrepreneurship.

Laboratory exercises: Introduction to financial analysis (types and analysis of financial indices), Starting a new business, Business computing tools (deadlock analysis, start-up cost estimation, cash flow), Business plan basics, Development business organization and operation (1st round of business game), Business decision making (2nd round of business game), Performance and strategy evaluation (3rd round of business game), Consumer behavior analysis (1st phase of marketing platform), Market segmentation (2nd phase of marketing platform) simulation and market share estimation (3rd phase of marketing platform), Strategy selection and competition analysis (4th phase of marketing platform).

(4) TEACHING and LEARNING METHODS - EVALUATION

<p>DELIVERY <i>Face-to-face, Distance learning, etc.</i></p>	<p>Face-to-face, Distance learning, Lectures, Lab demonstration, Tutorials</p>	
<p>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<p>E-Class, electronic communication, video demonstrations, intermediate exams via e-Class tools</p>	
<p>TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<p>Activity</p>	<p>Semester workload</p>
	<p>Lectures</p>	<p>36</p>
	<p>Lab</p>	<p>12</p>
	<p>Tutorials</p>	<p>32</p>
	<p>Self-study</p>	<p>20</p>
	<p></p>	<p></p>
	<p></p>	<p></p>
<p>STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>Final exam (60%, minimum required grade =4/10), Multiple choice intermediate exam (20%), Homework (20%)</p>	
<p>Course total</p>	<p>100</p>	

(5) SUGGESTED BIBLIOGRAPHY

<p>- Suggested bibliography:</p> <ol style="list-style-type: none"> 1. Storey, D.J., Greene, F.J., Χασιίδ, Ι., Φαφαλιού, Ε. 2011. Επιχειρηματικότητα για μικρές και μεσαίες επιχειρήσεις. Εκδόσεις Κριτική, Αθήνα 2011. 2. Καραγιάννης Η.Γ., Μπακούρος, Ι.Α. 2010. Καινοτομία επιχειρηματικότητα. Θεωρία και πράξη. Εκδόσεις Σοφία, Θεσσαλονίκη 2010. 3. Π. Κιόχος, Γ. Παπανικολάου 1999. «Προγραμματισμός Δράσεως Επιχειρήσεων», Εκδόσεις Σταμούλη, 4. Ν. Κομνηνός, Λ. Κυργιαφίνη, Ε.Σεφερτζή, 2001. «Τεχνολογίες Ανάπτυξης Καινοτομίας», Gutenberg, Αθήνα 5. Χ. Κανελλόπουλος «Διοίκηση Μικρομεσαίων Επιχειρήσεων». 6. Π. Πυτερόπουλος 2008. «Επιχειρηματικότητα, Καινοτομία & Business Clusters» Εκδόσεις Σταμούλη, 7. J. Tidd, John Bessant, Keith Pavitt, «Managing Innovation», Wiley 2001 8. Frederick Betz, «Managing Technological Innovation», Wiley 2003 9. James M. Utterback, 1994«Mastering the Dynamics of Innovation», Harvard Business School Press 10. Jan Cobbenhagen, 2000 «Successful Innovation», MPG Books Ltd 11. Dylan Jones-Evans, 1997 «Technology, Innovation and Enterprise», Macmillan Press LTD 12. Robert Szakonyi, 1999 «Technology Management», CRC Press LLC 13. International Conference 2002 “Dissemination of Innovation, clusters, regional institutions and telematics” Recite II, Innoregio, Thessaloniki 14. M.S. Cato 2009. Πράσινη οικονομία. Εκδόσεις Ι. Σιδέρης. Αθήνα.

15. N. Komninos *"Intelligent cities, innovation, knowledge systems and digital spaces"* Spon Press, 2002.

- Related academic journals:

Journal of Innovation & Knowledge, Elsevier

Journal of Innovation Management, open jim.org

Journal of Innovation and Entrepreneurship, Elsevier

International Journal of Innovation Studies, Elsevier