

# Syllabus

## 1. Program information

1.1. Institution	ACADEMY OF ECONOMIC STUDIES
1.2. Faculty	Business Administration in Foreign Languages
1.3. Departments	Business Administration
1.4. Field of study	Business Administration
1.5. Cycle studies	Master Studies
1.6. Education type	Full-time
1.7. Study program	Entrepreneurship and Business Administration in Energy
1.8. Language study	English
1.9. Academic year	2016-2017

## 2. Course information

2.1. Name	<b>Energy Management Systems</b>								
2.2. Code	<b>16.0252IF1.2-0004</b>								
2.3. Year of studies	<b>1</b>	2.4. Semester	<b>2</b>	2.5. Assessment type	<b>Exam</b>	2.6. Course type	<b>O</b>	2.7. Number of ECTS	<b>6</b>
2.8. Instructors	C(C)	<b>prof.univ.dr. PĂUNESCU Carmen Monica</b>				carmen.paunescu@fabiz.ase.ro			
	S(S)	<b>prof.univ.dr. PĂUNESCU Carmen Monica</b>				carmen.paunescu@fabiz.ase.ro			

## 3. Total estimated time

3.1. Number of weeks	14.00
3.2. Number of hours per week	3.00 of which
	C(C) 2.00
	S(S) 1.00
3.3. Total hours from curriculum	42.00 of which
	C(C) 28.00
	S(S) 14.00
3.4. Total hours of study per semester (ECTS*25)	150.00
3.5. Total hours of individual study	108.00
<i>Time distribution for individual study</i>	
Study the textbook, course support, bibliography and notes	40.00
Further reading in the library, on the online platforms and field	32.00
Preparing seminars, labs, homework, portfolios and essays	32.00
Tutoring	1.00
Examinations	1.00
Other activities	2.00

## 4. Prerequisites

4.1. About curriculum	N/A
4.2. About skills	

### 5. Requirements

C(C)	Computer, streamer, internet access, multimedia
S(S)	Computer, streamer, internet access, multimedia

### 6. Skills covered

	C1	The identification, intense analysis, interpretation and development of the concepts in the field of business administration in energy
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### 7. Course objectives

7.1. General objective	Implementation and certification of an management system energy in the organization in order to optimize energy use and reduce costs.
7.2. Specific objectives	Optimizing energy use by avoiding waste and using energy more efficiently regardless of its type (electricity, fuel) without reducing production levels without affecting the quality of production , the security of activites and environment. Implementing an energy management system (SME) in accordance with SR EN ISO 50001: 2011 Implement a plan for monitoring and analysis of the energy.

### 8. Course contents

8.1. C(C)		Teaching methods	Advices
1	Management systems in the sense of international standards ISO: defining elements; why an energy management system	PPT presentation, multimedia, case study	
2	Introduction to SR EN ISO 50001: 2011 Energy Management Systems. Requirements and user's guide: general; expected benefits	PPT presentation, multimedia, case study	
3	Policies and strategies of the organization in the field of energy: the importance of energy policy for ensuring the competitive advantage of organizations	PPT presentation, multimedia, case study	
4	Objectives of the organization's in energy and indicators of performance : goals, targets, action plans to optimize energy use and reduce costs	PPT presentation, multimedia, case study	
5	Requirements for an energy management system: SR EN ISO 50001: 2011 Energy Management Systems	PPT presentation, multimedia, case study	
6	Systematic management of the energy in accordance with SR EN ISO 50001: 2011: general characteristics, requirements, implementation stages, developing specific documentation	PPT presentation, multimedia, case study	
7	Energy consumption: possible energy sources, energy cost analysis; optimization of energy	PPT presentation, multimedia, case study	
8	Energy efficiency: definition; management strategies to increase energy efficiency	PPT presentation, multimedia, case study	
9	Rating the energy performance of the organization: evaluation of the client's perspective, the internal and external audit and analysis on energy costs	PPT presentation, multimedia, case study	
10	The certification of the energy management system compliance with SR EN ISO 50001: 2011: evaluation by external audit with the registration and certification	PPT presentation, multimedia, case study	
11	Reuse energy within the organization: using waste as a source of energy and reducing fuel purchase	PPT presentation, multimedia, case study	
12	Continuous improvement of the energy performance of the organization: reducing energy waste in every stage of the transport, distribution and use, mitigation of greenhouse gas	PPT presentation, multimedia, case study	
13	Identify opportunities for improvement in other areas of the organization: identifying opportunities to improve productivity and reduce costs in other areas than energy (eg, engineering, management, human relations) and results in more efficient use of other resources such as raw materials and labor	PPT presentation, multimedia, case study	
14	Integrating aspects of quality, environmental, occupational health and safety in current models for assessing business performance: management systems models defined by European standards and international requirements for quality, environmental performance and those related to occupational health and safety	PPT presentation, multimedia, case study	

### ***Bibliography***

- ISO, ISO 50001:2011 Sisteme de management al energiei. Cerințe și ghid de utilizare , ISO, Geneva, 2011
- Evans, J.R., Quality and Performance Excellence. Management, Organizations and Strategy, 5th Edition, South Western CENGAGE Learning., 2008
- Thumann A.P.E., Handbook of energy audits, Fourth edition, Published by The Fairmont Press I.N.C., 1992
- Turner, Wayne C. , Energy Management handbook, Third edition, , Published by The Fairmont Press I.N.C, 1997
- ISO, ISO 50001 Energy Management Systems. A practical guide for SMEs, ISO, Geneva, 2015, [http://www.iso.org/iso/50001\\_handbook\\_preview.pdf](http://www.iso.org/iso/50001_handbook_preview.pdf)

8.2. S(S)		Teaching methods	Advices
1	Introduction to the seminar requirements. Presentation of SR EN ISO 50001: 2011	Debates	
2	Organization's policy and objectives in energy	Mini case studies, debates	
3	Action plans to optimize energy use and reduce costs	Mini case studies, debates	
4	Steps to implement a energy management system	Mini case studies, debates	
5	Rating of the energy performance of the organization	Mini case studies, debates	
6	Continuous improvement of the energy performance of the organization	Mini case studies, debates	
7	Recognition of the benefits of energy management system. Evaluation	Mini case studies, debates	

***Bibliography***

- ISO, SR EN ISO 50001:2011 Sisteme de management al energiei. Cerințe și ghid de utilizare , ISO, 2011
- Evans, J.R., Quality and Performance Excellence. Management, Organizations and Strategy, 5th Edition, South Western CENGAGE Learning., 2008

**9. Course contents corroboration with the demands of epistemic community representatives, professional associations and representative employers**

Course content was correlated with the requirements of the business environment in Romania during various professional meetings and discussions held at the Department.

**10. Assessment**

Activity	Assessment criteria	Assessment methods	Percentage in the final grade
10.1. S(S)	Proressive evaluation	Individual project	30.00
10.2. S(S)	Proressive evaluation	Active participation, case studies	10.00
10.3. Final assessment	Summative evaluation	Written examination	60.00
10.4. Grading scale	Whole notes 1-10		
10.5. Minimum performance standard	Obtaining at minimum 50% (5 pts.) of the total score awarded, of which 50% (3 pts.) of the score for the written exam		

Completion date,  
09/20/2017

Instructors,

Approval date of department

Director of department,