STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Environment Management		**1011105331011120213**
Field of study	Profile of study (general academic, practical)	Year /Semester
Engineering Management - Part-time studies -	**(brak)**	**2 / 3**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Quality Systems and Ergonomics	**Polish**	**elective**
Cycle of study:	Form of study (full-time,part-time)	
Second-cycle studies	**part-time**	
No. of hours		No. of credits
Lecture: **10** Classes: **10** Laboratory: **-** Project/seminars: **-**		**6**
Status of the course in the study program (Basic, major, other)	(university-wide, from another field)	
(brak)	**(brak)**	
Education areas and fields of science and art		ECTS distribution (number and %)
technical sciences **Technical sciences**		**6 100%** **6 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Student defines and characterizes basic terms from the area of natural science that relate to the functioning of the natural environment; basic technologies in production processes, chosen terms from the area of management science, ideas and objectives of ergonomics
2	**Skills**	Student is able to interpret changes occurring in the natural environment and work environment, knows how to apply methods of studying phenomena and dependencies between them, as well as he uses logical reasoning in purpose of correlating and evaluating observed phenomena
3	**Social competencies**	Student is aware of the role of problems related with the natural environment and he is willing to participate in the process of shaping wok conditions and the natural environment

Assumptions and objectives of the course:

The course is aimed at giving knowledge on relations between the economy and the natural environment, as well as about social and economical results of the irrational management of natural resources. The student obtains the skill of determining objectives and preparing programs for environmental protection to be applied in enterprises.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Student should know about the role of man in actions for protecting the natural environment and the humanization of the process of work, which all relate to the formation of work conditions and organization of work, as well as ecosystems protection - [K2A_W06]

2. Student recognizes and explains legal norms from the range of environmental protection and used programs and systems of management normalization, he understands methods of their influence on organization functioning - [K2A_W13]

Skills:

1. Student interprets causes and courses of processes of economic and legal phenomena related to correlations between business and natural environment, he presents scientific hypotheses and verifies them - [K2A_U02]

2. Student uses the knowledge from the range of ecology and organizational management for describing and analyzing processes and phenomena on the contact area of these disciplines of science and he forms own opinions and chooses methods of analyses - [K2A_U02]

3. Student has the skill of using the obtained knowledge from the described range, widened with the critical analysis of efficiency and usability of the applied knowledge - [K2A_U06]

4. Student has skills of understanding and analyzing social phenomena that is widened with a skill of deep theoretical assessment of determined phenomena in chosen areas and with use of the scientific method - [K2A_U08]

Social competencies:

1. Student is aware of the importance of the professional behavior and of maintaining principles of professional ethics and respect of the diversity of opinions and cultures - [K2A_K04]
2. Student knows how to present own contribution in the preparation of social projects and administrate ventures resulting from these projects - [K2A_K05]
3. Student is aware of the interdisciplinary character of the knowledge from the range of ecology, ergonomics and he has the skill to solve composite organizational problems and he creates interdisciplinary teams - [K2A_K06]

Assessment methods of study outcomes

Forming assessment:

a) Classes: on basis of the current progress of work in the realization of the task;

b) Lectures: on basis of answers to questions concerning the discussed material;

Final assessment

a) Classes: on basis of public presentation of the realized task;

b) Lectures: on basis of a written colloquium from the range of lectures (in form of 3 responses to open questions).

Course description

Lectures

1. Evolution of attempts at the environmental management
2. Anthropogenic environment as an object of management
3. The essence of the process of environmental management
4. Term is the environmental protection and in environmental management
5. Systems of environmental management

5.1. The development, the purpose, tasks and the structure of norms of ISO 14000 series

5.2. Designing and implementing norms of ISO series in the organization

6. Eco-indicators in the products design

Classes

1. Identification of parameters of the technology and conditions of the enterprise
2. Environmental aspects of the activity of the company
3. The mission and the environmental vision of the enterprise
4. The environmental policy of the enterprise and its strategic objectives
5. Specific objectives and tasks
6. The program of the environmental management and conditions of its implementation

Basic bibliography:

1. Górka K., Poskrobko B., Radecki W., Ochrona środowiska, PWE, Warszawa 2001
2. Jabłoński J., Wybrane problemy zarządzania środowiskowego, WPP, Poznań 1999
3. Kozłowski S., Ekorozwój. Wyzwanie XXI wieku, Wydawnictwo Naukowe PWN, Warszawa 2000
4. Mateja B., Ekologia. Wybrane zagadnienia, WPP, Poznań 2011
5. Mikuła B., Człowiek a organizacja. Humanizm w koncepcjach i metodach organizacji, Wydawnictwo Antykwa, Kraków 2000
6. Tytyk E., Projektowanie ergonomiczne, Wydawnictwo Naukowe PWN, Warszawa ? Poznań 2001
7. Wolański N., Ekologia człowieka t. I, Wydawnictwo Naukowe PWN, Warszawa 2006
8. Jabłoński J., Janik S., Mateja B., Inżynieria ochrony środowiska, WPP, Poznań 2011
9. Jabłoński J., Zarządzanie środowiskiem, WPP, Poznań 2011
10. Jabłoński J., Zarządzanie środowiskowe jako warunek ekologizacji przedsiębiorstwa. Próba modelu teoretycznego, WPP, Poznań 2001
11. Mateja B., Ekologia. Wybrane zagadnienia, WPP, Poznań 2011
12. Zarządzanie środowiskiem. Poskrobko B., PWE, Warszawa 1998

Additional bibliography:

1. Kowalski Z., Kulczycka J., Ekologiczna ocena cyklu życia procesów wytwórczych (LCA), PWN, Warszawa 2007
2. PN ? EN ISO 14001:2005, Systemy Zarządzania Środowiskowego
3. Ustawa z dnia 27 kwietnia 2001 r., Prawo ochrony środowiska, Dz. U. 2001, nr 62, poz.627
4. PN ? EN ISO 14001:2005, Systemy Zarządzania Środowiskowego
5. Ustawa z dnia 27 kwietnia 2001r., Prawo ochrony środowiska, Dz. U. 2001, nr 62, poz.627

Result of average student's workload

Activity	Time (working hours)
1. Lectures	10
2. Classes	10
3. Consultations	20
4. Preparation of the presentation	40
5. Preparation for the colloquium	20
6. Colloquium	2
7. Discussing conclusions of the colloquium	2

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	104	6
Contact hours	44	2
Practical activities	10	1