

**AGH**AGH UNIVERSITY OF SCIENCE
AND TECHNOLOGY

Module name: Project management in the aspect of environmental protection

Academic year: 2019/2020 Code: ZSDA-3-0035-s ECTS credits: 4

Faculty of: Szkoła Doktorska AGH

Field of study: Szkoła Doktorska AGH Specialty: —

Study level: Third-cycle studies Form and type of study: Full-time studies

Lecture language: English Profile of education: Academic (A) Semester: 0

Course homepage: —

Responsible teacher: dr inż. Szramowiat-Sala Katarzyna
(katarzyna.szramowiat@agh.edu.pl)

Module summary

The aim of the module is to supplement and deepen knowledge in the field of project management in the aspect of environmental issues, as well as to gain practical skills in using computer tools that support design. The module also includes improving the so-called soft skills in the field of presentation and communication techniques in the project and useful knowledge in the field of implementing innovative projects.

Description of learning outcomes for module

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Connections with FLO	Method of learning outcomes verification (form of completion)
Social competence: is able to			
M_K001	can work in project teams, assuming the basic roles in the process of project implementation	SDA3A_K01, SDA3A_K02	Participation in a discussion, Oral answer, Involvement in teamwork, Activity during classes
Skills: he can			
M_U001	can properly prepare a project budget, schedule costs and involvement of project participants	SDA3A_U07, SDA3A_U06, SDA3A_U02, SDA3A_U05, SDA3A_U01, SDA3A_U04, SDA3A_U03	Project
M_U002	can take an initiative in a team and successfully drive the project and his/her team	SDA3A_U07, SDA3A_U06, SDA3A_U02, SDA3A_U05, SDA3A_U01, SDA3A_U04, SDA3A_U03	Project, Presentation
Knowledge: he knows and understands			

M_W001	knows the general rules and purposes of project management	SDA3A_W07, SDA3A_W04	Activity during classes
M_W002	knows the methods of commercialisation of project effects to increase and broaden his/her research experience	SDA3A_W07, SDA3A_W04	Activity during classes
M_W003	knows the meaning of a leadership in the project management and techniques of proper presentation of a project and its team	SDA3A_W07, SDA3A_W04	Activity during classes

Number of hours for each form of classes

Suma	Form of classes										
	Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Fieldwork classes	Workshops	Prace kontrolne i przejściowe	Lektorat
45	15	0	0	30	0	0	0	0	0	0	0

FLO matrix in relation to forms of classes

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Form of classes										
		Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Fieldwork classes	Workshops	Prace kontrolne i przejściowe	Lektorat
Social competence: is able to												
M_K001	can work in project teams, assuming the basic roles in the process of project implementation	-	-	-	+	-	-	-	-	-	-	-
Skills: he can												
M_U001	can properly prepare a project budget, schedule costs and involvement of project participants	-	-	-	+	-	-	-	-	-	-	-
M_U002	can take an initiative in a team and successfully drive the project and his/her team	-	-	-	+	-	-	-	-	-	-	-
Knowledge: he knows and understands												
M_W001	knows the general rules and purposes of project management	+	-	-	-	-	-	-	-	-	-	-

M_W002	knows the methods of commercialisation of project effects to increase and broaden his/her research experience	+	-	-	-	-	-	-	-	-	-	-
M_W003	knows the meaning of a leadership in the project management and techniques of proper presentation of a project and its team	+	-	-	-	-	-	-	-	-	-	-

Student workload (ECTS credits balance)

Student activity form	Student workload
Udział w zajęciach dydaktycznych/praktyka	45 h
Preparation for classes	2 h
przygotowanie projektu, prezentacji, pracy pisemnej, sprawozdania	5 h
Realization of independently performed tasks	5 h
Examination or Final test	2 h
Contact hours	2 h
Summary student workload	61 h
Module ECTS credits	4 ECTS

Additional information

Module content

Lectures

Fundamentals of project management

Introduction. Project environment. Projects in the organization. Parties involved in the project. Initiating and defining projects. Responsibility and communication in projects.

Project planning and implementation

Scheduling. Project resources. Monitoring project implementation. Project risk management.

Financial analysis of the project

Cost management. Analysis of variants. Sources of project financing. Financial assembly. Methods for assessing project effectiveness. Creating a project budget. Material and financial schedule Financial and economic profitability of the project (cost-benefit analysis) Budget control during the project implementation

Teams and leaders in the project

Features of effective teams in the project. Characteristics of roles in the team. Building and developing the project team. Creativity of the team. Leader in the project team - the essence of leadership. Features and skills of leaders in the Self-assessment project and development of leadership competences.

Presentation and interpersonal communication techniques in the project

The essence of interpersonal communication. Psychology of information reception and assimilation. Categories and types of public appearances. Role of presentation and its form. Composition of multimedia presentation. Preparation of presentation using selected means and visual materials. Preparation and conducting of information and consultation meetings in the project.

Commercialisation

Methods of commercialisation of project effects. Steps of commercialisation. How to choose the best kind of commercialisation.

Project classes

Practical implementation of knowledge gathered during the lectures

Preparation of own research project and discussion of each part of it.

Teaching methods and techniques:

Lectures: The content of the lecture is presented in the form of a multimedia presentation in combination with a classic blackboard lecture enriched with shows related to the issues presented.

Project classes: Students perform a given project independently, without much intervention of the teacher. This is to develop a sense of responsibility for group work and responsibility for the decisions taken.

Warunki i sposób zaliczenia poszczególnych form zajęć, w tym zasady zaliczeń poprawkowych, a także warunki dopuszczenia do egzaminu:

The condition of passing the project exercises is passing all the projects commissioned by the teacher.

Lecture:

- Mandatory presence: NO

- Rules for participation in classes: Students participate in classes learning the next content of teaching in accordance with the subject syllabus. Students should keep asking questions and clarifying doubts.

Project classes:

- Mandatory presence: Yes

- Rules for participation in classes: Students perform practical work aimed at obtaining the competences assumed by the syllabus. The method of project implementation, final effect and final conversation about the project are evaluated, taking into account theoretical issues presented in the lectures.

Zasady udziału w poszczególnych zajęciach, ze wskazaniem, czy obecność studenta na zajęciach jest obowiązkowa:

Lectures:

- Attendance is mandatory: No

- Participation rules in classes: Nie określono

Project classes:

- Attendance is mandatory: Yes

- Participation rules in classes: Nie określono

Method of calculating the final grade

The final grade in the subject will be calculated based on the grade from the project exercises.

The basic date for obtaining credit for project exercises is the end of classes in a given semester (deadline 1). The student has the right to two correction deadlines to pass project exercises, the first correction deadline expires on the day the primary session ends, and the second correction deadline expires on the day the resale session ends.

The student's absence on the set deadlines / exam is tantamount to losing the deadline. Exceptions are documented random situations, e.g. illness. In this case, the student sets the date of passing classes / exam individually with the teacher.

Completing the design exercises on dates later than in Term 1 results in a lowering of the grade by 0.5 and by 1 grade for Term 2 and Term 3 respectively in relation to the obtained grade from the design

exercises.

Sposób i tryb wyrównywania zaległości powstałych wskutek nieobecności studenta na zajęciach:

One absence is allowed in the design exercises without having to have an excuse. Each subsequent absence must be justified (e.g. sick leave). The method of compensation of arrears arising from the student's absence from the project classes will be determined individually with the teacher.

The basic date for obtaining credit for project exercises is the end of classes in a given semester (deadline 1). The student has the right to two re-appointment deadlines to pass project exercises, with the first re-entry deadline expiring on the day the primary session ends and the second re-entry deadline expiring on the day the re-entry session ends.

The student's absence on the set deadlines / exam is tantamount to losing the deadline. Exceptions are documented random situations, e.g. illness. In this case, the student sets the date of passing classes / exam individually with the teacher.

Prerequisites and additional requirements

Prerequisites and additional requirements not specified

Recommended literature and teaching resources

1. Edward Kowal, Aneta Kucińska-Landwójtowicz, Andrzej Misiotek "Zarządzanie środowiskowe" ISBN: 978-83-208-2060-7

Inna dostępna literatura z zakresu zarządzania projektami.

Scientific publications of module course instructors related to the topic of the module

1. An overview of some challenges in the studies in the emission of particulate matter / A. KORZENIEWSKA, K. SZRAMOWIAT, J. GOŁAŚ // IOP Conference Series: Earth and Environmental Science ; ISSN 1755-1307. — 2019 vol. 214 [no.] 1 art. no. 012119, s. 1-12. — Bibliogr. s. 10-12, Abstr.. — Publikacja dostępna online od: 2019-01-24. — 2nd International Conference on the Sustainable energy and environmental development : 14-17 November 2017, Krakow, Poland

2. Carbonaceous species in atmospheric aerosols from the Krakow area (Malopolska District): carbonaceous species dry deposition analysis / Katarzyna SZRAMOWIAT, Katarzyna STYSZKO, Magdalena Kistler, Anne Kasper-Giebl, Janusz GOŁAŚ // E3S Web of Conferences [Dokument elektroniczny]. - Czasopismo elektroniczne ; ISSN 2267-1242. — 2016 vol. 10 art. no. 00092, s. 1-5.

3. Engine-generated solid particles - a case study / Katarzyna SZRAMOWIAT, Joseph Woodburn, Wiktor Pacura, Katarzyna BERENT, Piotr Bielaczyc, Janusz GOŁAŚ // Combustion Engines ; ISSN 2300-9896. — 2018 R. 57 nr 3, s. 33-39. — Bibliogr. s. 38-39.

4. Mercury in atmospheric aerosols: a preliminary case study for the city of Krakow, Poland / Katarzyna STYSZKO, Katarzyna SZRAMOWIAT, Magdalena Kistler, Anne Kasper-Giebl, Lucyna SAMEK, Leszek FURMAN, Józef Pacyna, Janusz GOŁAŚ // Comptes Rendus Chimie ; ISSN 1631-0748. — 2015 vol. 18 iss. 10, s. 1183-1191.

5. New challenges in research on engine-generated solid particles / Katarzyna SZRAMOWIAT, Wiktor Pacura, Joseph Woodburn, Piotr Bielaczyc, Janusz GOŁAŚ // Combustion Engines ; ISSN 2300-9896. — 2018 R. 57 nr 3, s. 76-77.

6. Off-grid photovoltaic systems as a solution for the ambient pollution avoidance and Iraq's rural areas electrification / Qusay HASSAN, Marek JASZCZUR, Muzher Mohamed, Katarzyna STYSZKO, Katarzyna SZRAMOWIAT, Janusz GOŁAŚ // E3S Web of Conferences [Dokument elektroniczny]. - Czasopismo elektroniczne ; ISSN 2267-1242. — 2016 vol. 10 art. no. 00093, s. 1-5.

7. Oxidative potential of PM10 and PM2.5 collected at high air pollution site related to chemical composition: Krakow case study / Katarzyna STYSZKO, Lucyna SAMEK, Katarzyna SZRAMOWIAT, Anna KORZENIEWSKA, Klaudia Kubisty, Roksana RAKOCZY-LELEK, Magdalena Kistler, Anne Kasper Giebl // Air Quality, Atmosphere and Health ; ISSN 1873-9318. — 2017 vol. 10 iss. 9, s. 1123-1137.

8. Polycyclic aromatic hydrocarbons and their nitrated derivatives associated with PM10 from Kraków city during heating season / Katarzyna STYSZKO, Katarzyna SZRAMOWIAT, Magdalena Kistler, Anne Kasper Giebl, Sylwia Socha, Egon Erwin Rosenberg, Janusz GOŁAŚ // E3S Web of Conferences [Dokument elektroniczny]. - Czasopismo elektroniczne ; ISSN 2267-1242. — 2016 vol. 10 art. no. 00091, s. 1-7.

9. Quantitative assessment of \$PM_{2.5}\$ sources and their seasonal variation in Krakow / Lucyna SAMEK, Z. STĘGOWSKI, L. FURMAN, K. STYSZKO, K. SZRAMOWIAT, J. FIEDOR // Water, Air and Soil

Pollution ; ISSN 0049-6979. — 2017 vol. 228 iss. 8 art. no. 290, s. [1-11].

10. Short review on atmospheric aerosols source apportionment methods / Katarzyna SZRAMOWIAT, Katarzyna STYSZKO, Janusz GOŁAŚ // Challenges of Modern Technology ; ISSN 2082-2863. — 2016 vol. 7 no. 2, s. 7-13.

11. The meaning of bio- and chemomarkers in emission inventories / Katarzyna SZRAMOWIAT, Anna KORZENIEWSKA, Wiktor Pacura, Janusz GOŁAŚ // Combustion Engines ; ISSN 2300-9896. — 2018 R. 57 nr 3, s. 76.

12. The properties of particulate matter generated during wood combustion in in-use stoves / Katarzyna SZRAMOWIAT-SALA, Anna KORZENIEWSKA, Krzysztof SORNEK, Marta MARCZAK, Faustyna WIEROŃSKA, Katarzyna BERENT, Janusz GOŁAŚ, Mariusz FILIPOWICZ // Fuel : the science and technology of fuel and energy ; ISSN 0016-2361. — 2019 vol. 253, s. 792-801.

Additional information

None