

Master seminar

Faculty of	Mechanical and Power Engineering
Name in English	Master seminar RAC
Name in Polish	Seminarium dyplomowe
Main field of study	Power Engineering
Specialization	Refrigeration and cryogenic
Level of studies	II level
Form of studies	full-time
Kind of subject	optional
Subject code	W09ENG-SM2369
Group of courses	NO

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					50
Form of crediting					Zaliczenie
For group of courses mark final course with (X)					
Number of ECTS points					2
including number of ECTS points for practical (P) classes					2
including number of ECTS points for direct teacher-student contact (BU) classes					1,28

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1.	Passing all subjects covered by the plan of study in semesters prior to graduation semester ("Diploma seminar" course is accompanied by the "Master of Science Diploma Dissertation" course).
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SUBJECT OBJECTIVES

C1	Improving skills in the search for selective knowledge needed to create their own original ideas and solutions, and prepare a presentation that allows pass them on to others meaningful way
C2	Improving the ability to lead creative discussion during which can be justify the proposed solutions or ideas in a concrete and innovations
C3	Improving skills in the dissertation writing on a specific topic, presenting their own achievements against the background of known existing solutions
C4	Shaping the beliefs about the need for permanent development of their personality in all its aspects
C5	Developing a sense of conscientiousness and responsibility for the undertaken commitments, both to themselves and to others

SUBJECT LEARNING OUTCOMES

relating to skills:	
PEU_U01	Student can obtain information from a various sources necessary to comply energy systems projects in order to improve existing solutions
PEU_U02	Student can prepare a coherent paper or presentation on the work carried out, containing the results of the proposed design solutions, technological or operational

PEU_U03	Student is able to objectively justify the desirability of his/her original ideas and solutions during the discussion and critically evaluate the technical solutions proposed by others
relating to social competences:	
PEU_K01	Student understands the need to improve their professional and personal competence, is aware of the social consequences of engineering activities
PEU_K02	Student is able to cooperate and actually behave in a group, actively participate in the discussions on the professional topics with cultural expression and respect for different views of other participants in the discussion
PEU_K03	Student can think and act in a creative and enterprising manner, is able to define the priorities which determine the success of a scheduled task

PROGRAMME CONTENT

seminar		Number of hours
Se1	Discussion of the substantive requirements of the diploma thesis, structure and scope the different types of dissertations. Presentation of the general principles of conduct the final exam. Set a schedule of the individual student presentations	2
Se2-7	Individual students presentations on the current state of knowledge related to the issues of the realized diploma thesis, propose of the direction of further solutions. Discussions in the seminar group on the presented topics	12
Se8-13	Individual presentations about the realized diploma thesis with emphasis on their original achievements with the discussions in the seminar group.	12
Se14	Individual presentations - additional term	2
Se15	Crediting with grade	2
Suma godzin		30

TEACHING TOOLS USED

N1	Multimedia presentation
N2	Problematic discussion
N3	Individual work

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (F– forming (during semester), C– concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
F1	PEU_U01, PEU_U02, PEU_U03	Average rating for presentations, the ability to justify the advisability of the proposed solutions and the substantive referring to the proposals of other seminar participants.
F2	PEU_K01, PEU_K02, PEU_K03	Average rating for timely execution of the presentations, for the culture of speech, the ability to behave in a group and conduct discussions, for creativity and entrepreneurship.
P1=(2*F1+F2)/3		

PRIMARY AND SECONDARY LITERATURE

Primary literature	
1	1. Literature related to the issues of the thesis
Secondary literature	
1	

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

Imię i nazwisko:	Dean of the Faculty
E-mail:	