Course description

Course abbreviation:	KKS/SP2			
Course name:	Semestral project 2			
Academic Year:	2023/2024		**Printed:**	03.06.2024 09:16

Department/Unit /	KKS / SP2		**Academic Year**	2023/2024
Title	Semestral project 2		**Type of completion**	Pre-Exam Credit
Accredited/Credits	Yes, 4 Cred.		**Type of completion**	
Number of hours	Tutorial 4 [Hours/Week]			
Occ/max	Status A	Status B	Status C	
Summer semester	0 / -	0 / -	0 / -	**Course credit prior to** NO
Winter semester	17 / -	0 / -	1 / -	**Counted into average** NO
Timetable	Yes			**Min. (B+C) students** 5
Language of instruction	Czech			**Repeated registration** NO
Optional course	Yes			**Semester taught** Winter semester
Evaluation scale	S|N			**Internship duration** 0
No. of hours of on-premise				
Auto acc. of credit	Yes in the case of a previous evaluation 4 nebo nic.			
Periodicity	K			
Substituted course	None			
Preclusive courses	N/A			
Prerequisite courses	N/A			
Informally recommended courses	N/A			
Courses depending on this Course	N/A			

Course objectives:

The aim of the course is to teach students to analyze a given technical problem, specify its nature, including theoretical clarification, create possible solutions, choose the best option based on the selected criteria and evaluation methods. The solved topic is related to the future diploma thesis.

Requirements on student

Presentation of the semester work in the prescribed scope and modification, defense of work before the technical public.

Content

The semester project gives students an opportunity to use the theoretical knowledge, gained through their studies, in the solution of specific problems. It consists of the following parts: analysis of the state of the art in the given area, presentation of possible solutions and detailed description of the chosen one.

Fields of study

Podklady umístěny na Courseware.

Guarantors and lecturers

- **Guarantors:** Doc. Ing. Jan Hlaváč, Ph.D. (100%)
- **Tutorial lecturer:** Ing. Petr Bernardin, Ph.D., Ing. Roman Čermák, Ph.D., Doc. Ing. Josef Formánek, Ph.D., Doc. Ing. Petr Heller, CSc., Doc. Ing. Jan Hlaváč, Ph.D., Prof. Ing. Stanislav Hosnedl, CSc., Ing. Jiří Kořínek (100%), Ing. Václav Kraus, Ph.D., Ing. Michal Křížek, Ph.D., Doc. Ing. Václav Kubec, Ph.D., Prof. Ing. Václava Lašová, Ph.D., Doc. Ing. Ladislav Němec, CSc., Ing. Zdeněk Raab, Ph.D., Ing. František Sedláček, Ph.D., Doc. Ing. Václav Vaněk, Ph.D.

Literature

- **Recommended:** Hosnedl, Stanislav; Krátký, Jaroslav. *Příručka strojního inženýra : obecné strojní části. 1, Spoje, otočná uložení, hřídelové spojky, akumulátory mechanické energie.* Praha : Computer Press, 1999. ISBN 80-7226-055-3.

Time requirements

All forms of study

Activities	Time requirements for activity [h]
Individual project (40)	40
Presentation preparation (report) (1-10)	10
Graduate study programme term essay (40-50)	50
Contact hours	30
Total:	**130**

assessment methods

Knowledge - knowledge achieved by taking this course are verified by the following means:

Seminar work

Skills - skills achieved by taking this course are verified by the following means:

Seminar work

Competences - competence achieved by taking this course are verified by the following means:

Group presentation at a seminar

prerequisite

Knowledge - students are expected to possess the following knowledge before the course commences to finish it successfully:

describe the current state of solved problem

describe and explain possible variants of individual problem solutions at higher knowleadge level

describe the work hypotheses, methods and techniques neede to solve the problem

Skills - students are expected to possess the following skills before the course commences to finish it successfully:

to apply own knowleadge to solve specific problems

to analyze the current state of solved problem

suggest new soproblem solutions

create your own opinion on the individual solutions proposed a to be able to analyze their level

Competences - students are expected to possess the following competences before the course commences to finish it successfully:

N/A

teaching methods

Knowledge - the following training methods are used to achieve the required knowledge:

One-to-One tutorial

Skills - the following training methods are used to achieve the required skills:

One-to-One tutorial

Competences - the following training methods are used to achieve the required competences:

Task-based study method

learning outcomes

Knowledge - knowledge resulting from the course:

to evaluate the problem solved and to have an opinion on the resulting solution

to acquire further professional knowledge through a separate study of the theoretical design knowledge

communicate comprehensively and convincingly to the public about professional issues

Skills - skills resulting from the course:

to identify and formulate problems related to the problem solved

explain and evaluate the pros and cons of the solving problem

to select appropriate theories and apply them to the issue

Competences - competences resulting from the course:

N/A

Course is included in study programmes:

Study Programme	Type of	Form of	Branch	Stage	St. plan v.	Year	Block	Status	R.year	R.
Design Engineering of Machines and Technical Devices	Postgraduate Master	Full-time	Design Engineering of Health and Cooperative Technology	1	2020	2023	Compulsory courses	A	2	ZS
Design Engineering of Machines and Technical Devices	Postgraduate Master	Combined	Design Engineering of Health and Cooperative Technology	1	2020	2023	Compulsory courses	A	2	ZS
Design Engineering of Machines and Technical Devices	Postgraduate Master	Full-time	Design Engineering of Manufacturing Machines and Equipment	1	2020	2023	Compulsory courses	A	2	ZS
Design Engineering of Machines and Technical Devices	Postgraduate Master	Combined	Design Engineering of Manufacturing Machines and Equipment	1	2020	2023	Compulsory courses	A	2	ZS
Design Engineering of Machines and Technical Devices	Postgraduate Master	Full-time	Design Engineering of Vehicles and Handling Machinery	1	2020	2023	Compulsory courses	A	2	ZS
Design Engineering of Machines and Technical Devices	Postgraduate Master	Combined	Design Engineering of Vehicles and Handling Machinery	1	2020	2023	Compulsory courses	A	2	ZS