

Syllabus

Course description

Course title	Study Project
Course code	47522
Scientific sector	
Degree	Master in Industrial Mechanical Engineering
Semester	3
Year	<i>II – mandatory</i>
Academic year	
Credits	5
Modular	<i>No</i>

Total lecturing hours	
Total lab hours	
Total exercise hours	
Attendance	
Prerequisites	None
Course page	https://www.unibz.it/en/faculties/sciencetechnology/master-industrial-mechanical-engineering/

Specific educational objectives	<p>The study project is a semester-long practical project with the main objective that students show their ability to apply theoretical concepts learned in lectures to solve (complex) practical problems. The results are to be presented in a project report and as an oral presentation. The students have the possibility, in consultation with their supervisor, to work together with an external partner from industry.</p> <p>The study project can be completed as either an individual or a team project. Team projects are limited to a maximum number of three students. Team projects with more than three students need to request permission from the study project exam commission.</p>
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Lecturer/Supervisor	The study project is to have a minimum number of two supervisors. These are to be: two supervisors from the Industrial Mechanical Engineering master's program, or one supervisor from the master program and one external supervisor, e.g. from a company.
Teaching language	English
Office hours	By appointment with supervisors
Teaching assistant (if any)	
Office hours	
List of topics – content of the study project	A list of possible topics is made available before the beginning of the third semester. It is also possible for

	<p>students to propose a topic. This should be agreed with a lecturer of the master's program. The topic of the study project should fit into the master's program and enable to apply theoretical knowledge in practice.</p> <p>By the beginning of the third semester (deadline October 15), every student or group of students submit the application for the study project to the study council for approval using the related template. Project topics from the provided list will automatically be approved.</p> <p>The project report should follow a scientific structure and consists basically of the following parts:</p> <ul style="list-style-type: none"> - Introduction and objective of the work - Methods (applied, developed or both) - Results - Conclusions - Appendix and additional material - Bibliography <p>The master thesis template can be used as a possible template for the study project report. The length of the report should be about 30-40 DIN A4 pages (around 9000-12000 words). In the case of group work, a brief description of the contributions of every participating student (who did what) is to be included at the end of the report. The due date for the final version of the report is one week before the official presentation, i.e. exam date. The report in pdf format is to be sent to the faculty secretariat after the approval by the supervisors to do so. A plagiarism report using Turnitin provided by unibz is required when submitting the final version of the study project report.</p> <p>The study project presentation is public and to be conducted in English, e.g. via slideshow. This is mainly oriented to the teaching staff of the master's program, students, and project partners. The duration of the presentation is 15 min with an additional 10 min discussion.</p>
Teaching format	Applied research and project work, with the option of being conducted in a research laboratory or company.

Learning outcomes	<p>1 - Knowledge and understanding</p> <ul style="list-style-type: none"> • Review of specific topics from courses within the master's program <p>2 - Applying knowledge and understanding</p> <ul style="list-style-type: none"> • Ability to apply the competencies acquired during the
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	<p>master's degree to technical and/or management problems</p> <ul style="list-style-type: none"> • Ability to integrate competencies and to interact with specialists in different fields/areas (e.g., production, automation, design, simulation, logistics) <p>3 - Making judgements</p> <ul style="list-style-type: none"> • Ability in interpretation of data research and acquisition • Ability to formulate and solve (complex) engineering problems <p>4 - Communication skills</p> <ul style="list-style-type: none"> • Advanced writing skills (including technical language) • Reporting skills • Oral communication skills • Ability to work in teams <p>5 - Learning skills</p> <ul style="list-style-type: none"> • Independent study (taking responsibility for own study/learning/communications) • Independent project planning and implementation • Time management
<p>Assessment</p>	<p>The evaluation of the project work is carried out by the responsible supervisors.</p> <p>Formative assessment Practical activities, e.g. laboratory or company activities (2,3,4,5)</p> <p>Summative assessment</p> <p>The assessment of the course is:</p> <ul style="list-style-type: none"> • Written report and oral presentation. <p>The written report tests the student's ability to use and transfer acquired knowledge. Further, the student will learn and apply skills to make proper engineering judgments and use a proper technical language (1,2,3,4). The oral presentation on the project activities allows the student to acquire and use abilities in verbal language explaining complex technical aspects to engineering peers (1-5).</p> <p>Project report and project presentation of 15 minutes with 10 minutes discussion (learning outcome criteria 1-5). A single grade will be given to team projects.</p>
<p>Assessment language</p>	<p>The language for the report as well as for the project presentation is English.</p>

<p>Evaluation criteria and criteria for awarding marks</p>	<p>The criteria for the evaluation of the project report are listed below with an overall weighting of 70% of the end mark:</p> <ol style="list-style-type: none"> 1. Ability to structure the problem; 2. Ability to apply a scientific methodology; 3. Ability to apply theoretical concepts (learned during the LM-33 courses) in practice; 4. Relevance of the problem in practice and research; 5. Correctness of the results; 6. Autonomous work; <p>The criteria for the evaluation of the project presentation are listed below with an overall weighting of 30% of the end mark:</p> <ol style="list-style-type: none"> 1. Structure; 2. Presentation style and clearness; 3. Language and communication skills.
<p>Required readings</p>	<p>Necessary readings and documents for the study project will be recommended by the supervisors.</p>
<p>Supplementary readings</p>	<p>Supplementary readings will be suggested by the supervisors.</p>