

Course analysis

1. Course name	Energy Technology in Industrial Production 7.5 credits	Course code	ML1612
2. Course credits and points divided by examination form	INLA - Assignment, 1.0 credits, grading scale: A, B, C, D, E, FX, F LABA - Laboratory Work, 2.0 credits, grading scale: P, F PROA - Project Work, 1.0 credits, grading scale: P, F TENA - Written examination, 3.5 credits, grading scale: A, B, C, D, E, FX, F	When the course was completed	VT2022- P4
3. Course Coordinator	Jafar Mahmoudi, PhD, mahmoudi@kth.se,		
4. Examiner	Jafar Mahmoudi, PhD, mahmoudi@kth.se,		
5. Other teachers			
6. Course structure ➤ Brief description of the course structure and content ➤ Learning activities incl. number of hours	<p>General information</p> <ul style="list-style-type: none"> - Energy technology consists of streaming (for liquids and gases movements) studied and more pure energy technologies including classical thermodynamics. - The course includes a project, a lab activity, and a submission task. - The course ends with an examination covering four hours. <p>LESSON PLANNING:</p> <ul style="list-style-type: none"> - Lectures, submission tasks, projects, and lab - Examination torque: Individual exam and group work <p>LEARNING OUTCOME</p> <ul style="list-style-type: none"> - After passing the course is the student will be able to: - Describe and explain the energy technical concepts and link them to the industrial production - Calculate the Heat and Mass flows in different media - Apply the efficiency concept in the various energy processes - Explain and describe methods for the conversion between different forms of energy and analyze the efficiency of different energy carriers <p>The course main content</p> <ul style="list-style-type: none"> - View Skills in streaming learn, hydro-mechanical, thermodynamics, energy storage methods - And heat transfer - Perform calculations on power machines such as Heat and cooling process, pumps, and fans - Exemplify various methods of energy storage - Sketch and interpret the state diagram - Clarify how it can improve a factory energy system from the perspective of sustainability and combustion technology <p>Course structure</p> <p>This course requires that students plan their studies, to participate actively in the scheduled activities and works independently of the course beyond the scheduled time. Lectures and exercises with more supports students in their acquiring knowledge and skills development.</p> <p>LITERATURE</p>		

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	<ul style="list-style-type: none"> - Energy Technology - Package, Alvarez, Henrik, ISBN: 9789144014128 - Energy Technology - Formulas and Tables (ISBN: 9,789,144,002,330) - Distributed materials and materials and links subcontracted in Canvas 		
7. Number of registered students	16	Number of first-time registered students (ffg) (not required)	
8. Degree of achievement after the first examination*	Out of No. 9. ➤ E: 50 % ➤ C-D: 17% ➤ A-B:10	Achievement rate after the first examination for ffg (not required)	
9. Examination rate after the first examination*	64%	Examination rate after the first examination for ffg (not required)	
10. Response rate for course evaluation	Unfortunately, I have not received any feedback from the students although I have encouraged them in the last lecture. However, they been satisfied and mention that they don't have any specific viewpoint and nothing that they do prefer to be changed.		
11. Course evaluation ➤ Summary of course evaluation ➤ Summary of students' opinions including the open-ended questions ➤ Do the students consider that they work to an extent that corresponds to the credits of the course?	It is not possible to have a solid conclusion because only 5.6% of participants in the course evaluation. However, the following average conclusion could be drawn: According to discussion between the course responsible/ examiner with the PA it has been concluded that the 1 hp Project is too small The main conclusion based on		
12. Summary of course meeting	A number of course meeting have been made within the Zoom environment		
13. Analysis ➤ summarized comments from the course coordinator ➤ the strengths and weaknesses of the course based on the course evaluation and the course teachers' reflections, also in relation to the changes made before the course offering. ➤ Reflection on how the link between learning outcomes, learning activities and examination with goal-related grading criteria works in the course. ➤ Suggestions for any changes to the course with justification.	<ul style="list-style-type: none"> • The course followed the syllabus quite well. Everything went according to plan. • The course was successful and there has been no difference compared to the previous course. • The course followed the syllabus quite well. Everything went according to plan. The main proposal for next year is <ul style="list-style-type: none"> • Clearer kurs PM explaining more clear explanation about exam 		

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<ul style="list-style-type: none">➤ Are there significant differences in the experience of the course between:➤ Students who identify as women and men?➤ Students with or without a resigned disability?➤ What in the course can be developed in the short and long term?	
14. Other	

*"Achievement level" refers to the number of credits performed after the first examination (for all examining elements) for all students divided by the number of possible credits for all registered students.

"Examination degree" refers to the number of students who have passed all parts of the course after the first examination sessions divided by the number of registered students.