SYLLABUS

Design for Maintenance 7.5 credits D7011B

Design för underhåll

Course syllabus admitted: Autumn 2017 Sp 1 - Autumn 2019 Sp 2

DECISION DATE
2017-02-08

Luleå University of Technology 971 87 Luleå, Sweden
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LULEÅ TEKNISKA UNIVERSITET

Design for Maintenance 7.5 credits D7011B

Design för underhåll

Second cycle, D7011B

Education level	Grade scale	Subject	Subject group (SCB)
Second cycle	G U 3 4 5	Underhållsteknik	Other Subjects within Technology

Main field of study

Maintenance Engineering

Entry requirements

At least 60 ECTS in one of the following areas: Maintenance Engineering, Energy Engineering, Mechanical Engineering, Materials Science, Civil Engineering or equivalent, and a minimum of 15 ECTS in mathematics.

Selection

The selection is based on 30-285 credits

Examiner

Jan Lundberg

Course Aim

Upon completion of the course the student should have a basic knowledge in Design out Maintenance and Design for Maintenance, i.e. how mechanical products must be designed, from a mechanical point of view, to meet the required standards of reliability, lifetime cost, technical performance, manufacturing cost and ergonomics, as well as, ease of maintainenance.

Contents

The course contains:

- Construction design linked to various creative methods and systematic problem solving
- Knowledge of the production of assembly drawings and collaborative detail drawings for prototype construction and, in lesser degree, production design
- Construction to achieve high reliability and low maintenance costs
- Construction of technical functionality and ergonomic correctness, which is realized through the structure and content of the task

Realization

Each course occasion´s language and form is stated and appear on the course page on Luleå University of Technology's website.

You must individually develop a complete, hand-drawn design of a product. We encourage cooperation. All work is compiled in a report that includes all the drawings and sketches that were developed/used in your work.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.

To obtain a passing grade in the course must the project report, and oral presentation be completed with a passing grade. Note that all material must be submitted by the deadline. No possibility of supplementary work is given, the final grade is awarded according to the material submitted by the deadline.

Literature. Valid from Autumn 2017 Sp 1

Engineering Design, G Pahl and W Beitz, SpringerVerlag ISBN 3-540-19917-9

Course offered by

Department of Civil, Environmental and Natural Resources Engineering

Items/credits

No items/credits available

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Syllabus established

by Assistant Director of Undergraduate Studies Eva Gunneriusson, Department of Civil, Environmental and Natural Resources Engineering 2017-02-08