1 Name, Scope and Level of the Course

The course is provided by the University of Skövde and is named Maintenance and Operation Reliability G1F. It comprises 6 credits and is on basic level. The level of progression of the course is G1F.

2 Objectives

After completed course the student should be able to:

- describe concept of dependability, its key figures and terminology,
- apply capacity analysis and interviews in order to identify one practical maintenance problem, and argue for its solution utilizing maintenance theory, own reflections, and critical evaluation,
- describe why process driven maintenance and knowledge based continuous improvement work is important in order to eliminate unplanned downtime,
- describe how maintenance may organize its operations in order to attain requirements on safety, economy, quality, and technology,
- apply Life Cycle Cost calculations, and describe its area of usage in maintenance,
- describe how maintenance relates to company profit, on direct, indirect, and consequential level,
- perform written and oral communication of assignment.

3 Course Content

This course is an introduction course in maintenance and operation reliability. Different types of maintenance and its definitions is brought up together with related terminology and underlying standards. The course also brings up the most common processes and requirements that occur within a maintenance organization. Further is the economic importance of maintenance and its calculation methods addressed. An assignment during the course enable addressing both theory and practice on a real maintenance problem at a production site.

4 Forms of Teaching

The teaching comprises lectures and group assignments.

The teaching is conducted in Swedish. Some teaching in English may occur.

5 Examination

The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

Registration of examination results:

<table>
<thead>
<tr>
<th>Name of examination</th>
<th>Credits</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervised examination</td>
<td>3 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignment</td>
<td>3 credits</td>
<td>G/U</td>
</tr>
</tbody>
</table>

1 Determines the final grade of the course.

Students with a permanent disability who have been
approved for special educational support may be offered adapted or alternative examinations.

6 Admission Requirements
Prerequisite courses for this course are: Passed courses: PR012G-Production Engineering Basic’s G1N and ST309G-Statistics for Engineers II - basic course G1F (or the equivalent).

7 Subject, Main Field of Study and Disciplinary Domain
The course forms a part of the academic subject area of Industrial Engineering. The course is a part of the main field of study in Industrial Engineering at the University of Skövde. The disciplinary domain of the course is Technology.

Every course at the University of Skövde belongs to a subject. The division of subjects is used for follow-up and quality assurance. A main field of study is an area in which a degree can be awarded. Disciplinary domain is a division which is used by the government for the allocation of resources for studies at basic level and advanced level.

8 Approval of Course and Course Syllabus
The course was approved by the Curriculum Committee for Engineering Science on 4 December 2017. This course syllabus was approved by the Curriculum Committee for Engineering Science on 4 May 2020. It is valid from 1 July 2020 and replaces the course syllabus approved 4 March 2019.

9 Overlapping with Another Course
This course cannot constitute a part of a degree also containing a course the content of which is totally or partly equivalent to the content of this course.

10 Additional Information
Further information will be available on the university's website before a course is given.

National and local regulations for higher education are available on the university's website.

Upon completion of the course there will be a follow-up. The main purpose of this follow-up is to contribute to improvements of the course. The students’ experiences and views constitute one of the criteria for the follow-up and are gathered by means of course evaluations. The students will be informed of the results of the follow-up and any decisions regarding actions that are to be taken.

11 Course Literature and Other Educational Materials

Compendium - Maintenance and Operation Reliability