Additive Manufacturing, 7,5 HE credits
Additiv Tillverkning, 7,5 hp

Established: 2019-04-26
Established by: Department of Engineering Science
Applies from: H19

Learning outcomes
After completion of the course, the student shall:
• be able to discuss the basic principles for additive manufacturing,
• be able to discuss the main processes for additive manufacturing and their capabilities,
• be able to demonstrate basic skills with respect to geometrical design for additive manufacturing,
• understand and analyze the additive manufacturing processes for metallic and polymeric materials,
• be able to describe technical limitations/product realization capabilities when applying additive manufacturing technology as the manufacturing method
• understand the latest trends and business opportunities in additive manufacturing.

Entry requirements
General entry requirements and approved result from the following course/courses:
AMT601-Advanced Materials Science or the equivalent.

The forms of assessment of student performance
Individual final written examination (graded), Individual laboratory reports (pass/not pass), Individual quizzes or problems to solve (pass/not pass), Individual project report and presentation (pass/not pass).

Other regulations
Course grading: F/Fx/E/D/C/B/A - Insufficient, Insufficient- more work required before the credit can be awarded, Sufficient, Satisfactory, Good, Very Good, Excellent
Course language: English

General rules pertaining to examination at University West are availible at www.hv.se.

If the student has a decision/recommendation on special support due to disability, the examiner has the right to examine the student in a customized examination form.

Cycle
Second cycle
Progressive specialization
A1N - second cycle, has only first-cycle course/s as entry requirements

Main field of study
Mechanical Engineering
Course contents

- The course includes a lecture series that covers the main issues of the course, as defined in the course plan.
- A number of guest lecturers from industry (end-users of AM parts, manufacturers of AM equipment and manufacturers of AM parts) will also contribute with their knowledge.
- A number of exercises/quizzes and laboratory experiments will be held. During these events, the students will be familiar with design/process preparation, AM process knowledge, critical aspects of materials technology in AM and AM applications.
- A company visit is included in the course in order to familiarize the students with the state-of-the-art technologies and applications of additive manufacturing in the relevant industries.