

or in (small) group.

Initial competences

Have notion of mechanical properties and terminology (stress, strain, stiffness, strength, elasticity, plasticity, etc.).

Final competences

- 1 *Acquire knowledge regarding the operation, use and evaluation of finite element based simulations.*
- 2 Understand and explain different concepts related to modeling techniques.
- 3 Acquire ability to transform a typical problem statement into a relevant finite element model.
- 4 Perform correct finite element analysis around a given problem statement.
- 5 Analyze and evaluate finite element simulations in a critical manner.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Seminar, Lecture

Study material

Type: Handbook

Name: Computer Aided Materials Engineering Textbook

Indicative price: Free or paid by faculty

Optional: no

Language : English

Author : Lode Daelemans

Online Available : Yes

References

Course content-related study coaching

Assessment moments

continuous assessment

Examination methods in case of periodic assessment during the first examination period

Examination methods in case of periodic assessment during the second examination period

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

Non-period evaluation: workshops

- Submission of reports following work lectures;
- Non-participation results in a 0 for the specific workshop;
- Feedback on workshops is provided at the group level or upon student request;

Non-period evaluation: project work

- Submission of written report and accompanying model (all group members get the same evaluation);
- Reporting the results in a presentation;
- Individual oral evaluation;
- Non-participation results in a 0 for the project work;

Calculation of the examination mark

Non-period evaluations count for 100% of the total score. Here, workshops are evaluated for 5 credits (out of 20) and project work for 15 credits (out of 20).

