Course Specifications
Valid as from the academic year 2018-2019

Course

Engineer and Society (E640111)

Lecturers in academic year 2019-2020
Neutens, Tom
TW06 staff member
wyffels, Francis
TW06 lecturer-in-charge

Offered in the following programmes in 2019-2020

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Master of Science in Electronics and ICT Engineering Technology (main subject Embedded Systems)

Teaching languages
Dutch

Keywords
Social involvement, social impact, diversity, science communication

Position of the course
This module closes the gap between the worlds of technology on the one hand and society on the other. Science and technology are important factors for improving the life quality of socio-economically disadvantaged groups of society. Unfortunately, the interest in science and technology among teenagers in Flanders is still declining. Consequently, only a small part of the students opt for an engineering education. Furthermore, girls and socio-economical disadvantaged groups are underrepresented. As an engineer, you are ideally placed to tackle this challenge: in this course you develop and test a science communication activity.

Contents
The course is aimed at students who are willing to share their knowledge of science and technology with a wide audience. The project contains the following steps:
1. A theoretical part (8h) that discusses:
   a. the importance of social engagement of engineers as well the social implications of technology;
   b. the current context of STEM in Flemish schools.
On top of the theory some cases will be discussed.
2. A hands-on part (22h) with:
   a. a seminar (4h) during which the student designs a science communication activity;
   b. development and implementation (15h) of a science communication activity in a school or at a UGent event (during the science week, at the University for Children,...)

Initial competences
Students must have successfully completed a bachelor of engineering.

Final competences
1 Students are able to situate the implications of technology on our society
2 Students are able to formulate (in dialog) a science communication activity
3 Students are able to realize (with support) a science communication related activity
4 Students are aware and able to situate diversity in our society.

(Approved)
5 Students are able to critically assess a science communication activity

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
  Group work, lecture, fieldwork, seminar

Learning materials and price
  Slides with hand-outs, videos and exemplary cases

References

Course content-related study coaching
  The lectures will provide feedback during the seminars and fieldwork. Additional feedback can be provided whenever necessary and after making an appointment.

Evaluation methods
  continuous assessment

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

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

Examination methods in case of permanent evaluation
  Participation, job performance assessment, peer assessment

Possibilities of retake in case of permanent evaluation
  examination during the second examination period is possible in modified form

Extra information on the examination methods
  • Participation: the input of the student will be evaluated its quality
  • An assessment sheet (in form of a rubric) will be provided to the students

Calculation of the examination mark
  • Behavioural evaluation on the work floor: 40%
  • Participation: 50%
  • Peer assessment: 10%

Student who do not participate in the evaluation of one or more parts, or score less than 10/20 on one of the components, can no longer pass the entire course unit. If the final score is 10/20 or more, this will be reduced to the highest non-passed mark, being 9/20.