Promising practice:

University: INSA de Lyon

Academic discipline: Engineering

Course title: SRI – Social Responsibility of the Engineer

Course description:

On 1st September 2015, the National Institute of Applied Sciences (INSA) Lyon set up an original structure at the interface of the engineering school and research in the social sciences and business: the Gaston Berger Institute (named in tribute to the philosopher who co-initiated the engineer school in 1957) . This work was supported by the INSA Foundation that brings together fifteen corporate sponsors.

At the heart of this project designed for "the engineer of tomorrow", the device action-chair constitutes an original approach to implement a collaboration between the laboratories of social sciences and business in various forms of intervention on knowledge itself (translation of companies' demands into research problems identified by laboratories, the companies as study fields, etc.).

- 3rd year (Bachelor students)
- 2 frameworks have been experimented since 2014 in 2 different departments:

  Mechanical Engineering Design:
- 180 students
- 1 ECTS
- 1 day: morning is devoted to concepts and presentation of 3 partners' policies about CSR (Corporate Social Responsibility) ; the afternoon is for group sessions. Each company submits a case study (about gender, disability, social inclusion etc.) to 3 groups of 15 students. They work on it before presnting their output to the company.

  Mechanical Engineering Development:
- 120 students
- 2-3 days of "scientific challenge" (group work) with societal dimension
- 0 ECTS : out of the pedagogical model (after exams)
- Examples of last years' topics: Exoskeleton and perception of disability , issues of urban mobility, Earthquake in Nepal.

Next academic year, these 2 departments will merge: the course will be kept and developed (44 hours, 4 ECTS), and will involve 300-400 students in the 3rd year.

Learning outcomes:

"The goal of this exercise was to propose our students an intense experience of group work with a challenge dimension. We wanted them to put into perspective their scientific achievements while associating a societal dimension. Social responsibility of the engineer is a very important aspect of training at INSA, that's what we wanted to highlight"(Sonia Bechet, coordinator of the project)

How students' learning is assessed

Mechanical Engineering Design: Students' group works are assessed with the companies, for example by identifying the ideas they could use concretely to enrich their CSR policies.

How students learn with civil society organisations through this course:

Example of 2015 "scientific challenge" :

For the first time this year, exchanges were organized around a real case echoing the news: the earthquake in Nepal. The students were given the task of finding solutions to the post-disaster situation in designing innovative concepts. The rescue of people, provision of clean water and electricity, the transport of wounded etc. were all concrete problems that they had to solve to achieve a digital and / or physical prototype. To enrich their reflection, lectures punctuated the week, including the intervention of Patrice Chavigny from Handicap International who came to make students aware of the cultural, geographical and climate issues that have to be taken into account to help victims in emergency situations most responsibly and effectively.

In 2014, before working on an exoskeleton issue for and with a company, the students had benefitted from a course from a lecturer in political science on the perception of disability.

How students learn about dimensions of RRI through this course

The principle is that no issue can be solved solely by technical solutions: the process taught in these modules is:
1. Problematization
2. Investigation
3. STS analysis (Science, Technique, Societies), the latter item meaning studying the notions of identity, power, representation etc.

RRI keys integrated in the course:

Public engagement/ societal engagement; Gender and diversity; Ethics
Sustainability; Social justice

RRI process requirements integrated in the course:

Anticipation; Reflexivity; Inclusion; Responsiveness

Contact information:

Davy Lorans, Université de Lyon
davy.lorans@universite-lyon.fr