

INSIGHTS FROM PORTUGAL

Engineering ethics education:
insights from Spain and Portugal

23 September 2021

SEFI@work

Higher Education overview

- No specific discipline in any accredited engineering course
- Publications repository at UPorto – 5, ULisboa – 3, UCoimbra – 3, UMinho – 3, UNLisboa, UAveiro, UTAD, UBI, UAlgarve, UEvora - ??, IPP – 3, ISEL – 0, ISEC – 0
- Codes of conduct in general in institutions for students, professor and non-academic staff
- Ethics mentioned in learning outcomes of disciplines.

Higher Education overview (cont.)

- EUR-ACE Standards: Bachelor “...to inform judgements that include reflection on relevant social and ethical issues...”; Master “...etical judgements...”.
- Portugal has 71 engineering programs with EUR-ACE label.
- Evaluation report of EUR-ACE in Portugal does not explicitly address ethical requirements of standards.

Professional overview

- Mandatory course for admission in OE (2002) and in OET
- Around 7 hours training plus homework of about 8 hours
- Theoretical session and case studies
- Assessment with pass/fail
- Deontology and Ethics about same time
- Manual OET – 59 pages

Professional overview (cont.)

- Ethics and Professional Deontology
 - Law and Moral
 - Concepts Clarification
 - Ethics and Ethical Codes
 - Ethical Dilemmas: Examples, Approach Methodologies, Guidance, Solutions
 - Value Conflicts and Priorities
 - Humanity, Nature Dynamics, Human Rights
 - Implementation and Exploitation of Technology
 - Common Good, Private and Corporative Interests
 - Safety and Functionality, Usefulness of Technical Solutions