

**DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
FACULTY OF CIVIL ENGINEERING**

SUBJECT CARD

Name in Polish:	Etyka inżynierska
Name in English:	Engineering Ethics
Main field of studies:	Civil Engineering
Specialization (if applicable):	Civil Engineering
Level and form of studies:	1st / 2nd* level, full-time / part-time*
Subject type:	obligatory / optional / university-wide*
Subject code	FLH020361
Group of courses:	YES / NO*

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					15
Number of hours of total student workload (CNPS)					60
Form of crediting	Examination / crediting with grade*	Crediting with grade*			
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical (P) classes					1,5
including number of ECTS points for direct teacher-student contact (BK) classes					0,6

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge from the field of humanities and social sciences.

SUBJECT OBJECTIVES

- C1. Obtaining knowledge on general and professional ethics.
- C2. Learning how to identify and analyze moral dilemmas related to engineering professions.
- C3. Introducing and analyzing the content of professional codes of ethics for engineers.

SUBJECT EDUCATIONAL EFFECTS	
<u>Relating to knowledge:</u> PEK_HUM W08	Students obtain knowledge on recognized standards of professional ethics and basic knowledge on the concept of intellectual property.
<u>Relating to skills:</u> PEK_HUM U01, U02	The student is capable of using essential ethical literature independently and is able to work with normative texts on professional ethics, i.e. codes of ethics. Based on the knowledge of different ethical theories, the student is able to identify ethical dilemmas in engineering practice and use them as models helpful in indentifying patterns of ethical conduct.
<u>Relating to social competences:</u> PEK_HUM K01, K02, K05	The student is aware of the importance of non-technical aspects of engineering of a chosen specialty and understands the consequences of engineering activity in terms of its environmental and social impact as well as their responsibility for making decisions; the student understands the need for constant learning; the student correctly identifies and analyzes dilemmas related to their profession.

PROGRAMME CONTENT		
Form of classes - Seminar		Number of hours
Sem 1	Introduction: morality, ethics, law.	1
Sem 2	Main ethical theories: criteria for justification of moral judgments; the structure of a moral dilemma.	2
Sem 3	The status, goals and functions of professional engineering ethics.	2
Sem 4	Structure and functions of professional codes of ethics for engineering professions.	2
Sem 5	Professional obligations and responsibilities of engineers in ethical perspective.	2
Sem 6	Engineers responsibility toward society.	2
Sem 7	Ethical dilemmas in engineering professions: case study analyses.	2
Sem 8	Intellectual property; copyrights. Ethical and legal dilemmas, case study analyses.	2
Total hours		15

TEACHING TOOLS USED
N1: Multimedial presentation. N2: Report. N3: Discussion.

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT		
Evaluation (F – forming (during semester), P – concluding (at semester end))	Educational outcome number	Method of evaluating educational outcome achievement
F1	PEK_HUM W08 PEK_HUM U01 PEK_HUM K01, K05	Presentation in a multimedial or report form.
F2	PEK_HUM U01, U02 PEK_HUM K02, K05	Prepared participation in discussion.
P=F1+F2	PEK_HUM W08 PEK_HUM U01, U02 PEK_HUM K01, K02, K05	Weighted average of evaluation F1 (2/3 of concluding mark) and evaluation F2 (1/3 of concluding mark).

PRIMARY AND SECONDARY LITERATURE
<p><u>PRIMARY LITERATURE:</u></p> <p>[1] Chyrowicz B., O sytuacjach bez wyjścia w etyce, Kraków 2008</p> <p>[2] Budinger T.F., Budinger M. D., Ethics of Emerging Technologies: Scientific Facts and Moral Challenges, Hoboken, New Jersey 2006.</p> <p>[3] Galewicz W. [red.], Moralność i profesjonalizm. Spór o pozycję etyk zawodowych, Kraków 2010.</p> <p>[4] Harris C., Pritchard M., Rabins M., Engineering Ethics. Concepts and Cases, Wadsworth 2009.</p> <p>[5] Sieńczyło-Chlabicz J [red.], Prawo własności intelektualnej, Warszawa 2009.</p> <p><u>SECONDARY LITERATURE:</u></p> <p>[1] Chyrowicz B. [red.], Etyka i technika w poszukiwaniu ludzkiej doskonałości, Lublin 2004.</p> <p>[2] Jonas H., Zasada odpowiedzialności. Etyka dla cywilizacji technologicznej, tłum. M. Klimowicz, Kraków 1996.</p> <p>[3] Małek M. Mazurek E., Serafin K., Etyka i technika. Etyczne, społeczne i edukacyjne aspekty działalności inżynierskiej, Wrocław 2014.</p> <p>[4] Ossowska M., Normy moralne. Próba systematyzacji, Warszawa 2003.</p>

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT
Engineering Ethics
AND EDUCATIONAL OUTCOMES FOR MAIN FIELD OF STUDY
Civil Engineering
AND SPECIALIZATION
Civil Engineering

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
Knowledge				
PEK_HUM W08	K2_W15	C1, C2, C3	Sem1-Sem8	N1, N2, N3
Skills				
PEK_HUM U01 PEK_HUM U02	K2_U01 K2_U02	C1, C2, C3	Sem4-Sem8	N1, N2, N3
Social competence				
PEK_HUM K01 PEK_HUM K02 PEK_HUM K05	K2_K01 K2_K02 K2_K04	C1, C2, C3	Sem1-Sem8	N1, N2, N3

** - enter symbols for main-field-of-study/specialization educational effects

*** - from table above