COURSE UNIT DESCRIPTION

Course unit title	Course unit code
Communication Skills and Ethics in IT Team	

Lecturer(s)	Department where the course unit is delivered
Coordinator: p'ship prof. dr. Vytautas Ašeris **Other lecturers:** -	Department of Software Engineering Institute of Computer Science Faculty of Mathematics and Informatics Vilnius University

Cycle	Type of the course unit
1st (BA)	Compulsory

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Face-to-face	5th semester	English

Prerequisites
Prerequisites: Software Engineering I, Software Engineering II.

Number of credits allocated	Students' workload	Contact hours	Individual work
5	130	50	80

Purpose of the course unit: program competences to be developed

Purpose of the course: software engineers must conduct themselves ethically and professionally to deliver software products effectively and efficiently. To achieve that, the course teaches to understand more fully the basic principles in professionalism and ethics and the specifics of their interplay. Course forms abilities to undertake literature searches and analysis, apply research methods, and independently solve the formulated problems.

Generic competences:

- Communication and collaboration *(GC1).*
  - An ability to present, information, ideas, problems, and suggested solutions convincingly in official and second (foreign) language for specialists and non-specialists in written and verbal form *(GC1.1).*
  - An ability to function effectively on multidisciplinary teams to accomplish a common goal *(GC1.2).*
  - An ability to organise their own work independently *(GC1.3).*
- Life-long learning *(GK2).*
  - Recognition of the need for, and engagement in life-long learning *(GK2.1).*
  - An ability independently to acquire new knowledge, methodologies, and tools and to apply them in practice *(GK2.3).*
- Social responsibility *(GK3).*
  - An understanding of professional and ethical responsibility *(GK3.1).*
  - An ability to analyse the economic, social, ethical, and legal impact of engineering solutions on individuals, organizations, and society *(GK3.2).*

Specific competences:

- Technological and methodological knowledge and skills, professional competence *(SC6).*
  - An ability to combine theory and practice to complete software engineering tasks from different application areas while considering the existing technical, economical and social context *(SC6.1).*
  - An ability to select and use appropriate current techniques, models, solution patterns, skills, and tools necessary for software engineering practice involving emerging application areas *(SC6.2).*
  - An ability to use existing hardware, software and application systems, to identify, understand and apply the promising technologies *(SC6.3).*

- An ability to plan, design and conduct experiments and other appropriate practical investigations (e.g. of system performance), as well as to analyse and interpret data *(SC6.4)*.
- An ability to formulate acceptable, cost-effective and time-efficient problem solutions using essential knowledge and methods of estimating and measuring cost and productivity *(SC6.5)*
- Awareness of project management, quality assurance, and process improvement practices and abilities to apply them *(SC6.6)*

Learning outcomes of the course unit: students will be able to	**Teaching and learning methods**	**Assessment methods**
Apply theoretical knowledge in academic, business and everyday life ethical problems.	• Problem-oriented teaching • Cooperative and collaborative learning • Active learning • Case analysis - independently and in a classroom • Discussions and debates • Field experts as guest lecturers (optional)	• Evaluation of the prepared individual work • Evaluation of the prepared group work •
Assess and analyze ethical cases and dilemmas.		
Understand social context and personal place in it, via four components of emotional intelligence.		
Understand how to represent oneself in verbal, written and behavioral forms.		
Combine personal values with organizational values.		
Further independently develop understanding of social and moral dilemmas in modern businesses.		
Understand and evaluate ethical principles and standards existing in different business organizations.		
Make ethical professional decisions and practice ethical professional behavior.		
Be able to challenge ones cognitive biases and foster creativity.		
Undertake literature searches, analysis, and apply research methods.		
Plan, design and conduct experiments and other appropriate practical investigations, as well as to analyze and interpret data.		

Course content: breakdown of the topics	**Contact hours**							**Individual work: time and assignments**	
	Lectures	Tutorials	Seminars	Practice	Laboratory work	*Tutorial during*	**Contact hours**	**Individual work**	**Assignments**
1. **Introduction**. Professionalism and ethics. Core values as foundation. Requirements for research papers in department of Software Engineering.	3						**3**	**4**	Self-study of literature to deepen knowledge.
2. **Individual cognition**. The golden Rule. Values needed to be successful, their change over time. Self-respect, accountability and discipline. Importance of lifelong learning. Emotional intelligence (EQ). Core values and believes, their relation. Cognitive biases.	4		2				**6**	**8**	Self-study of literature to deepen knowledge. Preparation for 1st laboratory work.
3. **Self-representation and understanding**. Communication skills: verbal, written and visual. Dilemma of perceived vs real and self-confidence. Career planning. Personality types and tests. Relation between IQ, EQ and core values. Maslow pyramid.	4		2				**6**	**10**	
4. **Group dynamics and psychology**. Dynamics and composition of any team. Compatibility of team members. Personality types in a team. Feedback and its value. Positive and negative feedback in context of EQ. Conflicts, their origins and how to solve them. Self-efficacy. Debates and	2		2				**4**	**8**	Self-study of literature to deepen knowledge. Preparation for 2nd, 3rd and 4th laboratory works.

constructive arguments. Validating questions. Dealing with uncertainty and ambiguity.									
5. **Dealing with multicultural environments**. Cultural differences between different nationalities, impact on professional environment. Real world examples. Cultures in different domains: written, verbal and visual. Working in global teams. Visible and hidden peculiarities. Gender, minor, and cultural issues. Inclusion and diversity. Boundaries of tolerance.	2		2				**4**	**8**	
6. **Academic ethics and professional conduct**. Requirements and recommendations for research paper work in this semester. Ethics in studies and research. Ecosystem of universities. Ethics of scientific research and its presentation. Academic writing (1. Formal and informal rules for academic writing, case examples. 2. Technical aspects of academic writing: citing, latex, reference management. 3. Publicizing scientific research: articles, conferences). Academic speaking.	5		0				**5**	**12**	
7. **Business ethics**. Codes of ethics and practice. Business ethics (1. Common understanding of what is unethical in workplace, statistics. 2. Influencing people and stakeholdership management. 3. Conflict between personal and professional values. 4. Morals behind lying). Dilemma of ethical but not professional, and vice-versa. Ethics of marketing. Ethical leadership.	4		2				**6**	**12**	
8. **Professional conduct**. General conduct and software engineering specific. International standards, standards and harmonization organizations (1. IEEE-CS/ACM - Software Engineering Code of Ethics. 2. ACM - Code of Ethics and Professional Conduct). Conflicts of interest. Career in corporate organizations. Understanding the benefits of being open minded but sticking to your core values.	4		6				**10**	**14**	
9. **Advanced topics**. Data confidentiality and security, surveillance and privacy; GDPR. Contracts and liability, intellectual property, freedom of information. Computer crime and law enforcement. Information security in everyday apps and devices. Sustainability and impact - ESG. Market manipulation. Compliance. Industrial revolutions and their impact on business ethics. The Innovator's Dilemma.	4		2				**6**	**4**	
Total	**32**	**2**	**16**	**0**	**0**	**0**	**50**	**80**	

The table below indicates how students can collect points during the semester. None of the assignments are mandatory, if student collects 4.5 points get a positive evaluation. The only limitation is that students must choose between two options of how they collect the points:

- No.1 + No.2 + No.3 + mini quizzes.
- No.1 + No.4 + mini quizzes.

Assessment strategy	Weight %	Deadline	Assessment criteria
Laboratory assignment No. 1.	35	Weeks 5+6	The collaborative laboratory work on biases and fallacies is assigned to the students that covers the knowledge and skills that were developed in 1-4 topics. Students prepare a poster or a video (based on the National regulations around Covid-19 pandemic) and present it in Seminar in Weeks 5+6. Student teams for collaborative work are recommended to be from of 5 students, and for them not to rotate during the semester. Each student in the team is evaluated separately, according to the student's responses during the review of the assignment.
Laboratory assignment No. 2.	15	Any time till last week	Personal laboratory work on self-presentation is assigned to the students that covers the knowledge and skills that were developed in 1-4 topics. A 5-minute presentation in a seminar is given about student's interests and passions.
Laboratory assignment No. 3.	40	Any time till last week	The collaborative laboratory work, covering the knowledge and skills that were developed throughout all semester. Students work on a group presentation on self-awareness and updated understanding of that after working on assignment No.2, which is presented in a 10-minute presentation in a seminar. Each student in the team is evaluated separately, according to the student's responses during the review of the assignment. Each student in the team is evaluated separately, according to the student's responses during the review of the assignment.
Laboratory assignment No. 4.	55	Any time till last week	The collaborative laboratory work, covering the knowledge and skills that were developed in 1-7 topics. Students work on a case study, which is presented in a 15-minute presentation in a seminar, which includes an introduction to facts, a summary of how the analyzed case was portrayed and perceived, and what conclusions can be made, especially through professionalism and ethics dimensions. Each student in the team is evaluated separately, according to the student's responses during the review of the assignment.
Points during the lectures	20	During the semester	During the lecture, students might: • get asked random questions in an interactive way, which are not mandatory. Each answer can be rated from 0.1 to 0.2% of weight • Make an extra presentation, speech, debate, etc. • Be rewarded for active participation in discussions in seminars and in lectures. The total cannot exceed more than 20% in total.
Exam (written)	0		There is no exam in this course. All the points to be collected during the semester.

Author	Publ. year	Title	Number or volume	Publisher or URL
Required reading				
O.C.Ferrell, J.P.Fraedrich, L.Ferrell	2014	Business Ethics: Ethical Decision Making and Cases	10th Edition	Cengage Learning
J.C.Maxwell	2005	Ethics 101: What Every Leader Needs To Know (101 Series)		Center Street
M.J.Quinn	2016	Ethics for the Information Age	7th edition	Pearson
D.Carnegie	1998	How to Win Friends and Influence People		Gallery Books
D.Goleman	2006	Emotional Intelligence: Why It Can Matter More Than IQ	10th edition	Bantam
Recommended reading				
B.McLean, P.Elkind, J.Nocera	2013	The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron	Reprint edition	Portfolio
R.K.Greenleaf	2015	The Servant as Leader	rev Edition	The Greenleaf Center for Servant Leadership
S.Harris	2013	Lying		Four Elephants Press
N.N.Taleb	2018	Skin in the Game: Hidden Asymmetries in Daily Life		Random House

J.P.Stray, R.Lotte	2003	Kaip rašyti mokslinį darbą		Aidai, Vilnius
K.Kardelis	2002	Mokslinių tyrimų metodologija ir metodai		Judex , Kaunas
R.Kačinskaitė	2008	Elektroninės leidybos sistemos LATEX pagrindai		Šiaulių universiteto leidykla, Šiauliai