

Course Title	Computer Ethics and Public Policy				
Course Code	ACSC319				
Course Type	Compulsory				
Level	BSc (Level 1)				
Year / Semester	2 <sup>nd</sup> (Spring)				
Teacher's Name	Dr Christos Markides				
ECTS	5	Lectures / week	2	Laboratories/week	N/A
Course Purpose	<p>The aim of the module is to explore the ethical and social impacts of technological innovation. The course will provide learning experiences that robustly and holistically examine the impact of technology on humans and societies, by integrating perspectives from computer science, philosophy, and social science. The course challenges students to think about their role as enablers and shapers of technological change, and explore their responsibilities as innovators, designers, coders, engineers, corporate leaders, policymakers, citizens, and consumers. Finally, the module aims to prepare students to recognise ethical problems in their present and future work as technologists and consider possible solutions from multiple perspectives.</p>				
Learning Outcomes	<p>Upon successful completion of the course students will be able to:</p> <ol style="list-style-type: none"> <li>1. Recognise the social and ethical impacts that computer technologies have.</li> <li>2. Distinguish between the different aspects of socially sensitive issues and explain concepts such as intellectual property, implications of the Internet era, privacy and anonymity and computer crime.</li> <li>3. Develop professional ethics and comprehend the responsibilities of a computer professional.</li> <li>4. Demonstrate the ability to speak coherently and organised in public both in presenting information and in interactive multi-agent discussions.</li> <li>5. Understand the social and professional issues in the social context of computing, professional and ethical responsibilities, intellectual property, social implications of the Internet, privacy and anonymity and computer crime.</li> <li>6. Analyse case studies by applying a four-step process (CARE: Consider, Analyse, Review, and Evaluate) thus identifying the stakeholders and consequences, analyse how ethical theories and the code of ethics applies in the context, review possible actions, and evaluate decisions as well as future impact.</li> </ol>				
Prerequisites	None		Co-requisites	None	
Course Content	<ul style="list-style-type: none"> <li>• <b>Overview:</b> The distinction between morals, ethics, and laws is defined. The trends that have increased the likelihood of unethical behaviour are</li> </ul>				

	<p>identified. The concept of corporate social responsibility is defined and discussed. A model for improving corporate ethics is provided. The most commonly observed types of misconduct in the workplace are identified. The need for an organizational code of ethics is discussed. A useful model for ethical decision making is provided, and the role of ethics in IT is discussed.</p> <ul style="list-style-type: none"> <li>• <b>Code of Ethics:</b> Present and analyse a code of ethics from IEEE and ACM, as a mechanism by which a computer professional ensures that its members use their knowledge and skills for the benefit of society. The general Ethical Principles, Professional Responsibilities, Professional Leadership Principles, and Compliance aspects of the code are presented.</li> <li>• <b>CARE Framework:</b> Consider (stakeholders and consequences), Analyse (how the Code applies to the context), Review (possible actions), and Evaluate (decisions and future impact) is presented. The CARE framework provides an outline for judging whether possible actions in each case would be consistent with both the letter and the spirit of the Code. These questions establish a general approach to assist computing professionals in ethical decision-making, and evaluating situations based on different case studies.</li> <li>• <b>Philosophical Ethics:</b> The course briefly examines ethical concepts and philosophical ethical theories. Students become familiar with traditional ethical concepts and theories, and are able to compare workable ethical theories, as well as evaluating morality and the law.</li> <li>• <b>Professional Ethics:</b> The course focuses on moral decisions made by people who design, implement, operate, or maintain computer hardware or software systems. Consider the extent to which a computer-related career is a profession along the lines of medicine or law. Examine the relationship and work-life of computer professionals in terms of Employer-Employee, Client-Professional, Society-Professional, and Professional-Professional.</li> <li>• <b>Ethics and Public Policy:</b> The course examines case studies on intellectual property, information privacy, computer, network communications, social media, and network security, cybersecurity and cyber-attacks, government and legislation, whistle-blowing, data mining, computer reliability (software and hardware), software engineering, and automation.</li> </ul>
Teaching Methodology	<p>The methodology used to conduct the course is structured around lectures, class discussion, and evaluation of case studies in order to appreciate and evaluate the social and ethical impact of computer technologies. The taught part of course is delivered to the students with the help of computer presentations. Lecture notes and presentations are available through the web for students to use in combination with the textbooks and references.</p>
Bibliography	<p><u>Textbooks:</u></p> <ul style="list-style-type: none"> <li>• Michael J. Quinn, <i>Ethics for the Information Age</i>, Pearson, 8<sup>th</sup> edition, 2020, ISBN: 9780135218006.</li> <li>• George Reynolds, <i>Ethics in Information Technology</i>, Cengage Learning, 6<sup>th</sup> edition, 2018, ISBN: 978-1337405874.</li> </ul>

	<p><u>References:</u></p> <ul style="list-style-type: none"> <li>• Johnson G. Deborah, <b>Computer Ethics</b>, Pearson, 4th edition, 2009, ISBN: 978-0131112414.</li> <li>• ACM Code of Ethics and Professional Conduct Affirming our obligation to use our skills to benefit society.</li> <li>• IEEE Code of Ethics.</li> </ul>
Assessment	<p>Lectures are supplemented with group discussion and examination of case studies based on recent advances in technology or technological flaws in computer science and engineering. The students are expected to prepare and deliver group presentations following the evaluation of case studies thus presenting the ethical dilemmas and applying ethical theories to modern problems.</p> <ul style="list-style-type: none"> <li>• Assignments: 60%</li> <li>• Group Project: 30%</li> <li>• Discussion / Class Participation: 10%</li> </ul>
Language	English