

**UECS3313**  
**Computer Ethics and Professional Responsibility**  
**Tutorial 9**  
**Professional Ethics**

1. Professional ethics have two characteristics different from general ethics, which implies specific responsibilities on the part of the professional. Describe in detail these characteristics and the responsibilities it implies.
2. What are three most common ethical issues that computer professionals have to consider in evaluating any particular system that they are working on ?
3. A systematic methodology can be applied to the analysis of situations with complicated ethical situations, in order to clarify on what the ethically acceptable course of actions might be. There are two phases to this analysis, brain storming and analysis. Describe in detail all the steps involved in both phases.
4. Briefly describe the implications of the Computing Professionals Act 2011 and the main reason for the criticism that it received from the local computing industry in general.
5. Consider the scenario described below.

Your customer is a community clinic. The clinic works with families that have problems of family violence. It has three sites in the same city, including a shelter for battered women and children. The director has requested for the following:

- creation of a computerized record and appointment system, networked for the three sites.
- Applications on a few laptop computers that allow staffers to carry records of these women when they visit clients at home and stay in touch with them by email.
- an app for staffers' smartphones by which they could access records at social service agencies.

At the shelter, staffers use only first names for clients, but the records contain last names and forwarding addresses of women who have recently left. The clinic's budget is small.

- a) What is your primary professional responsibility in this situation and what advice are you obligated to offer to her initially?
- b) What could be a possible consequence of this advice on the applications and the system that she has requested to be developed?

- c) Assume that the director responds by saying that the clinic cannot afford to accord completely with your advice due to their budget constraints. She wants you to proceed and develop the system anyway. State three options open to you that are ethically and professionally acceptable.

6. Consider the scenario described below.

You are the project manager heading a team that is working on building a computer-controlled device that for treating cancerous tumors. The computer controls direction, intensity, and timing of a laser beam that destroys the tumor. It is a novel approach that has the potential of eliminating many fatal complications that arise from conventional surgical methods. There is a deadline for release specified in the official contract between your company and the client hospitals that intend to utilize this device. Various delays have put the project behind schedule. As such, there will not be enough time to complete all the appropriate testing procedures. The system has been functioning properly in the routine treatment scenarios tested so far. You are considering delivering the system on schedule without informing them of this setback, while continuing testing and alerting the hospitals immediately should there be a bug found.

- a) What is the main ethical and professional issue of concern here?
- b) Give 2 arguments to support releasing the device on time and 2 arguments to support delaying release until all tests are complete.
- c) What is the appropriate ethical and professional decision?

7. Consider the scenario below:

Your company has a license to use a software application for 50 machines, but you discover that it has been copied onto 100 machines instead. You are the IT manager in this company and your name is on the signed license agreements between your company and the vendor of the software application. Your attempts to approach the top management of the company to rectify this situation have all being ignored. Describe the two professional options that are ethically permissible to you at this point in time.

8. Consider the scenario below

You are a key technical lead in a team working on the software for a crash-avoidance system for cars. You feel the system has a flaw in its design as it has not considered special circumstances that could arise during certain kinds of weather conditions. You believe that this flaw could potentially be fatal for the passengers of the car. Your project manager has ignored all your objections on the justification that based on his past experience, your concerns are overblown. He expects to complete the project soon and launch the product.

- a) What is the first course of action that you are professionally obligated to attempt in this situation?
- b) Consider that this course of action has failed. You are considering whistle blowing and bringing this issue to the customer, news media or government agency. What are the risks involved in this particular course of action?
- c) Given these risks, what is the next action you are ethically obligated to do before proceeding to actually whistle blow?

9. You work as a network administrator at a major university. Your department will select a few brands of security software to recommend to non-IT savvy students for their desktop computers, laptops, tablets, and other devices. One of the companies whose software you will evaluate offers to take you out to dinner, insisting that they do not expect anything from you in return. The company is also offering to give the university a percentage of the price for every student who buys its security package.

- a) What is the first thing that you should do before deciding to accept their offer of a free dinner?
- b) What are the ethical implications if the university opts to take up this offer by the company in order to obtain the promised percentage cut?

10. The state has decided to develop a new software application that helps judges to make sentencing decisions by displaying similar cases from the past for the judge to review. You are a software developer working for the state government. The state has only just passed a law to make it a criminal offense to use a cell phone while taking a college exam. Your project manager, who is purely a technical person, quickly suggests that you now modify the program to add this new category of crime and assign the same relevancy weights to cases as the program currently does for using a cell phone while driving a car. What is the appropriate professional course of action in this situation? Justify your answer.