Title (Units): COMP4006 Information Technology Professional Practices (3,2,1)

**Course Aims:** To examine important professional issues in contemporary practice and to empower students become an effective participant in a team of IT professionals.

By the end of the study of this course, students should

i) have gained a thorough understanding of the various issues/factors an IT professional faces and how one should respond.

- ii) be able to understand how IT can be leveraged to promote equality of information access across countries, and to create systems that are inclusive of all individuals.
- iii) have learned what are considered professional behavior in the IT field covering the topics of ethics, cybercrime, privacy and corporate social responsibilities.
- iv) have learned about the current IT practices in Hong Kong and elsewhere, how the IT practices promote justices and sustainable societal development

**Prerequisite:** Year IV Standing in Computer Science

# **Course Intended Learning Outcomes (CILOs):**

Upon successful completion of this course, students should be able to:

| No. | Course Intended Learning Outcomes (CILOs)  |
|-----|--|
|     | Knowledge  |
| 1   | Describe the various issues/factors an information technology professional faces and explain how one |
|     | should respond   |
| 2   | Describe professional practices and behavior in the ICT industries                                   |
| 3   | Recognize current issues and their impacts in IT   |
|     | Professional Skill   |
| 4   | Acquire knowledge to appreciate industry practices in an integrated manner                           |
| 5   | Write properly formatted and organized reports and term papers                                       |
| 6   | Present a new topic, lead discussion and comment on others' views                                    |

**Calendar Description:** 

This course examines important professional issues in contemporary practice to help students become an effective participant in a team of IT professionals.

### **Teaching and Learning Activities (TLAs):**

| CILOs   | Type of TLA  |
|---------|--|
| 1, 2, 3 | Lectures, in-class group presentations, guest lectures               |
| 4       | Guest lectures, Group written report                                 |
| 5       | Guest lecture reports, Self-reflection reports, Group written report |
| 6       | In-class group presentations, Group report presentation              |

### **Assessment:**

| No. | Assessment   | Weighting | CILOs to be | Description of Assessment Tasks                       |
|-----|--------------|-----------|-------------|---|
|     | Methods      |           | addressed   |   |
| 1   | Case Study   | 10%       | 4, 6        | Students will deliver a group presentation. They      |
|     | Presentation |           |             | will be assessment by their presentation and          |
|     |              |           |             | discussion skills.                                    |
| 2   | Case Study   | 30%       | 4, 5        | It includes two parts: group case study report and    |
|     | Report and   |           |             | individual group feedback assessments. Group case     |
|     | individual   |           |             | study report assess students' ability to conduct      |
|     | assessments  |           |             | research and write organized reports. Individual      |
|     |              |           |             | assessments will ask students questions regarding     |
|     |              |           |             | the case studies to assess their understanding of the |
|     |              |           |             | topics.   |

| 3 | Guest<br>Lecture<br>Report | 20% | 2, 3, 4, 5    | Students will submit reflective reports after attending the guest lectures to share their thoughts about the topics. They will be assessed by their  |
|---|----------------------------|-----|---------------|--|
| 4 | Group<br>Project           | 20% | 1, 3, 4, 5, 6 | understanding of the topics and their writing skills.  Students will conduct research into a topic related to course lectures. Students will present the topic in a group presentation. Students will deliver a formal writing to summarize their understanding. |
| 5 | Test(s)                    | 20% | 1, 2, 3       | Test questions are to test learning outcomes in the Knowledge domain. They are designed to assess students' understanding of important concepts and their ability in applying these concepts to solve problems.  |

# **Assessment Rubrics:**

1. Participation (In class & Guest lecture)

| Criteria    | Excellent (A)   | Good (B)  | Satisfactory (C)  | Marginal<br>Pass (D) | Fail (F)                               |
|-------------|---|---|---|----------------------|--|
| and Quality | Always contributes to the discussion by raising thoughtful questions, analyzing relevant issues, building on others' ideas, synthesizing across readings and discussions, expanding the class' perspective, and appropriately | contributes to<br>the discussion<br>in the afore- | Occasionally contributes to the discussion in the afore-mentioned ways. | r ^                  | Never<br>participate in<br>discussion. |
|             | perspective, and appropriately challenging assumptions and perspectives.  |   |   |                      |  |

2. Reports (Group presentation report, Self-reflection reports, and Guest lecture reports)

| Criteria    | Excellent (A)  | Good (B)  | Satisfactory (C)   | Marginal Pass<br>(D)  | Fail (F)  |
|-------------|--|---|--|---|---|
| Content     | comprehensive<br>summary of the case   | both a clear<br>summary of the<br>case study's or<br>guest lecture's<br>main points and the       | provides only a summary of the case study's or guest lecture's   | The report covers only <i>some</i> of the main points mentioned in the case study's or guest lecture.                         | The report<br>basically<br>copies the<br>slides of the<br>case study's or<br>guest lecture.               |
| Structure   | enhances a specific<br>purpose, audience,<br>and context with                      | The structure is appropriate to a specific purpose, audience, and context with smooth transition. | The structure is appropriate to a specific purpose, audience, and context with <i>proper</i> transition.                       | Inappropriate structure to a specific purpose, audience, and context with awkward transition.                                 | The structure does not address purpose, audience, and context with poor transition.                       |
| Conventions | with varied structure<br>and do not contain<br>any errors in<br>grammar, spelling, | well constructed  | Many sentences are well constructed with varied structure and contain <i>few</i> errors in grammar, spelling, and punctuation. | Some sentences are well constructed with poor structure and contain <i>some</i> errors in grammar, spelling, and punctuation. | Fragmented sentences lack structure and contain <i>many</i> errors in grammar, spelling, and punctuation. |

# 3. Group written report

| Criteria    | Excellent (A)   | Good (B)   | Satisfactory (C)   | Marginal Pass<br>(D)  | Fail (F)  |
|-------------|---|--|--|---|---|
| Thesis      | The report is very clear with comprehensive and accurate information.   | The report is clear with <i>detailed</i> information.  | The report is not clear with sufficient information.   |   | The report is vague and details are missing.  |
| Structure   | The structure supports and enhances a specific purpose, audience, and context with excellent transition.                          | The structure supports and enhances a specific purpose, audience, and context with <i>smooth</i> transition. | The structure is appropriate to a specific purpose, audience, and context with <i>proper</i> transition.                       | specific purpose,<br>audience, and<br>context with<br>awkward                                     | The structure does not address purpose, audience, and context with poor transition.                       |
| Conventions | All sentences are well constructed with varied structure and contain just <i>no</i> errors in grammar, spelling, and punctuation. | well constructed with varied structure and contain just <i>almost</i> no errors in                           | Most sentences are well constructed with varied structure and contain <i>few</i> errors in grammar, spelling, and punctuation. | are well constructed with poor structure and contain <i>some</i> errors in grammar, spelling, and | Fragmented sentences lack structure and contain <i>many</i> errors in grammar, spelling, and punctuation. |

4. Group Presentation

| Criteria      | Excellent (A)   | Good (B)   | Satisfactory (C)   | Marginal Pass<br>(D)   | Fail (F)   |
|---------------|---|--|--|--|--|
| Preparedness  |   | Team members seem <i>pretty</i> prepared but might have needed a couple more rehearsals.                       | clear that   | Team members seem <i>mildly uncertain</i> , but can do a decent presentation.  | Team members<br>do <i>not</i> seem at<br>all prepared to<br>present                                  |
| Comprehension | accurately answer all the questions posed by the audience about | Team members are able to accurately  | Team members are able to accurately answer <i>most</i> of the questions posed                        | Team members are able to accurately answer only a few the questions posed by the audience about the topic.                             | Team members are <i>unable</i> to accurately answer questions posed by the audience about the topic. |
| Language      | the time and make <i>no</i> grammatical mistakes or             | Speak <i>clearly</i> almost all the time and make almost no grammatical mistakes or mispronounced a few words. | Speak clearly most of the time and make only a few grammatical mistakes or mispronounced some words. | Speak clearly<br>some of the time<br>and make some<br>grammatical<br>mistakes or<br>mispronounced<br>many words.                       | Mumble most of the time and make many grammatical mistakes or mispronounced many words.              |
| Enthusiasm    | enthusiasm about  | interest and   | and body<br>language are used<br>to try to generate<br>enthusiasm, but<br>seem somewhat              | Very little use of<br>facial expressions<br>or body language,<br>resulting in not<br>much interest in<br>the topic being<br>presented. | Obviously has no intention to impress the audience by using facial expression or body language.      |

# **Course Content and CILOs Mapping:**

| Contont | CILO No. |
|---------|----------|
| Content | CILO No. |

| I  | Information Technology Professionalism | 1, 2, 4, 5, 6 |
|----|--|---------------|
| II | Case Studies and Best Practices in IT  | 1, 2, 3       |

### **References:**

- Schultz, Robert A, Contemporary Issues in Ethics and Information Technology, IRM Press, 2006
- Baase S, A Gift of Fire, Social, Legal and Ethical Issues for Computers and the Internet (Third Edition), Prentice Hall, 2007.
- Johnson DG, Computer Ethics (Forth Edition), Prentice Hall, 2009.
- Spinello RA, CyberEthics: Morality and Law in Cyberspace (Fifth Edition), Jones and Bartlett, 2013.
- Spinelloo Richard, Case Studies in Information and Computer Ethics (Second Edition), Prentice Hall, 2003
- Davies G, Copyright and the Public Interest, Sweet & Maxwell, 2002.
- Online resources including www.infosec.gov.hk (Computer Crime), www.pcpd.org.hk (Personal Data (Privacy) Ordinance), www.ipd.gov.hk (Copyright Ordinace), www.ogcio.gov.hk (Electronic Transaction Ordinance), www.hkcs.org.hk (IT Professional: Code of Ethics)
- Current articles from IT professional related magazines and journals
- Online search for articles and information on current issues and their impacts in IT

#### **Course Content:**

## **Topic**

- I. Information Technology Professionalism
  - A. Personal and professional ethics
  - B. Privacy and personal data protection
  - C. Intellectual property right
  - D. Security and computer crimes
  - E. Safety in IT
  - F. IT profession in Hong Kong
  - G. Impact of information technology on society
- II. Case Studies and Best Practices in IT
  - A. Effects of standardization
  - B. Managing system development
  - C. Managing outsourcing
  - D. Software quality