Information on a General Education Course	
Course Title:	Information Technology: Applications and Impacts
Credit Units:	3
Medium of Instruction:	English

Course Aims:

This course aims to develop students' information literacy and effective techniques in learning and working environments in their daily life. This course also discusses various impacts of digital world and enhances students' social awareness and responsibility.

Course Intended Learning Outcomes (CILOs) *(What the student is expected to be able to do at the end of the course according to a given standard of performance)*

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

1. Identify the fundamental concepts and principles of information technology applications;
2. Work productively using appropriate applications such as word processing, spreadsheet, presentation and multimedia tools;
3. Search information from the Internet and electronic resources efficiently and evaluate information for decision making and problem solving;
4. Communicate and present information effectively in digital formats in a collaborative and virtual environment; and
5. Use information technologies in a socially responsible manner.

Alignment of the CILOs with the ILOs of General Education:

Intended Learning Outcomes (ILOs)		**CILOs** *(Please ✓ if the CILO(s) is/are aligned with the PILO*					
		1	2	3	4	5	
I.	Demonstrate a solid foundation of generic and practical skills, including inquiry techniques, critical thinking, quantitative reasoning, and problem-solving skills.	✓	✓	✓			
II.	Demonstrate good skills in written and oral communication.	✓			✓		
III.	Increase global awareness and sensitivity by gaining knowledge of diverse peoples and cultures			✓		✓	

IV.	Demonstrate a broad knowledge of the natural and social world through the study of arts and humanities, science and technology, life management, and regional and global issues	✓	✓	✓		✓	
V.	Demonstrate the capacity for assuming individual and social responsibilities, including ethical reasoning and action.					✓	
VI.	Demonstrate the capacity and resourcefulness for lifelong learning and life management to fulfill the needs of personal and professional lives.	✓	✓	✓	✓	✓	

Keyword Syllabus: *(a brief description of the syllabus of the course)*

- **Representing Information Digitally: Theory and Concept**
  Bits and bytes; Number systems; Hardware and software; Graphical user interface; Device drivers and operating systems; Multimedia file formats; Lossy and lossless compression; Image processing; IP addresses and hostnames; Hypertext markup language; Uniform Resource Locator.

- **Work and Learn Effectively with Digital Technologies**
  Desktop publishing and presentation: Style and themes, Word arts and Indexing, Mail Merge and Table of Contents, Image and Visual Tools; Data Analysis and management: Formatting and charts, Pivot tables, Financial analysis; Multimedia production: Animation, Video recording and editing; Information sharing: online application, Web-based calendar.

- **Search Information with Internet and the World Wide Web**
  Internet and the society; Freedom of speech; Internet history; Search engines; E-Journals and E-library searching. Social networks; Cultural impact of the Internet; Trend of the Internet; Information overload.

- **Social Impact of Computers and Technology**
  Limitations of Information Technology; Universality; Engagement in sustained reasoning; Courtesy in the cyber world; Intellectual Property; Privacy; Computer crime; Threats to Computers & Communications Systems; Safeguarding Computers & Communications; Disaster-recovery plans.

Pre-requisites:	
Pre-cursors:	
Equivalent Courses:	
Exclusive Courses: DCO10102, DCO11010	
Course Duration: One Semester	
Semester:	
<u>Teaching and Learning Activities (TLAs):</u> *(designed to facilitate students' achievement of the CILOs)*	
Types of TLAs	Hours per week (if applicable)
a. Lectures provide an introduction to various concepts and techniques in information technology. Demonstrations and discussions might be conducted to provide opportunities for better student engagement.	1
b. Laboratories allow students to get hands on experience in using various application software and provide opportunities to practice the techniques introduced in lectures. Discussions/debates on the latest I. T. issues will also be conducted.	2
c. Project/Presentation develops students' ability on data collection, literature review and presentation skills. The topic of the project should be related to the impact of information technology to our community. Students are required to review the problems from different perspectives and generate solutions using technologies learnt in the course.	

<u>Assessment Tasks/Activities:</u> *(designed to assess how well the students achieve the CILOs)*

Type of assessment tasks/activities	%	Remarks
i. Examination	50	Examination assesses students' ability to apply the concepts and techniques learnt in the course.
ii. Test	15	Short answer type questions assess students' understanding of basic concepts introduced in lectures.
iii. Project	25	Project allows students to analyze the problem from different perspectives and to solve well-defined problems.
iv. Laboratory Exercises	10	Laboratory exercises are designed for students to work after class and require students to solve problems using information technology skills.

Alignment of TLAs and Assessment Tasks/Activities with the CILOs:											
		TLAs *(Please ✓ if the TLA(s) is/are aligned with the CILO*					**Assessment** *(Please ✓if the Assessment(s) is/are aligned with the CILO*				
CILOs		a.	b.	c.			i.	ii.	iii.	iv.	
1	Identify the fundamental concepts and principles …	✓		✓			✓	✓	✓		
2	Work productively using appropriate …	✓	✓	✓			✓	✓	✓	✓	
3	Search information from the Internet and …	✓	✓	✓			✓	✓	✓	✓	
4	Communicate and present information …		✓	✓					✓	✓	
5	Use information technologies in …	✓	✓	✓			✓		✓	✓	

Assessment Schedule (on the basis of Assessment Tasks/ Activities identified above)			
Examination (%): 50	Duration (Hrs): 2	Coursework (%): 50	Participation (%):
Grading Mode: Standard ~~or Pass/Fail~~* (delete as appropriate)			

Indicative Readings

Recommended Textbook

Beekman, G. (2009). *Tomorrow's technology and you.* Upper Saddle River, NJ: Prentice Hall.

References

Williams, B. K. (2007). *Using information technology: A practical introduction to computers & communications.* Boston, MA: McGraw-Hill Irwin.

Terry Kidd, Irene L. Chen. (2008). *Social information technology: Connecting society and cultural issues.* Hershey, PA: Information Science Reference.

Feedbacks from Local Academics and Fulbrighters

"This course has a good start and good content. The labs appear to be interesting but it is difficult to tell from the limited information. They allow students to solve problems which lead this to some inquiry-based activities. The course covers a lot of information and will provide students with a good knowledge base on this topic."
"The course would benefit by incorporating more creative, interesting, and interactive instructional strategies. Each section (p 2) could incorporate an activity (preferably collaborative) where students could work together and produce a product or project. These are just some quick ideas to illustrate what I am talking about. Based on the four sections on page 2.

1. Theory and concept -Graphical user interface –students could research good and bad examples of graphic interfaces. Based on what they find they could create one as a team (like in a real-world environment) The class could vote on the best one.

2. Digital technologies –Multimedia production, animation, video –Students could work together to produce a short video based on supplied criteria. They could do a video "advertising" the course for future students. Or they could do a current event in the news or a public service announcement.

3. Search and the WWW –Cultural impact of Internet -Interview students, friends, family about the impact of the Internet to their lives. Create interview questions and talk with a certain number of people. Each student could combine the data and do simple statistical analysis of what was found. All students could pool data.

4. Social impact –Intellectual property -Students could gather different examples of Intellectual property laws, censorship, etc. from various countries and compare them to HK, China, Macao. Where are the most and least restrictive countries?

Each of the sections should have application activities to provide students with real, relevant, and creative activities where they can actually demonstrate the objectives in the course. This course is close to being a very good one. The incorporation of more interactive, collaborative activities would make it even better."

"I recommend course examiner to prepare the questions in examination and test to assess students' understanding of contents instead of memorizing the contents."