

University of Macau
CISG111 Computing in Modern Society
(Class 001)
2015/2016 Spring
Syllabus
Part A – Course Outline

Course description:

3 credits. Computing in Modern Society explores the impact of computer in modern society. Designed to attract a diverse undergraduate audience with different exposure to technology, the course provides an introduction to the basic knowledge and skills for an efficient, responsible and creative use of computer. General overview includes the fundamental concepts and principles of hardware architecture, organization and components; software uses, applications and development; data processing and information systems; and basic features of networking, together with the societal, legal and ethical issues and implications of computing in our daily lives. Programming skills in various languages will be taught to enable students to apply the knowledge in Computer Science and ICT.

Prerequisites:

- None

Textbook(s) and other required material:

- *Blown to Bits*, by Hal Abelson, Ken Ledeen and Harry (available for download from <http://www.bitsbook.com/>)
- Additional reading materials will be available from the Moodle course

References:

- *Computing Essentials 2010 (20th Ed)*, McGraw-Hill International Edition by Timonhy J. O’Leary and Linda I. O’Leary, 2010
- *Using Information Technology (8th Ed)*, McGraw-Hill International Edition by Brian K. Williams and Stacey, 2010
- *Ethics for the Information Age (3rd Ed)*, Addison-Wesley by Michael J. Quinn, 2008.
- *Eloquent JavaScript: A modern introduction to programming*, by Marijn Haverbeke, available online: <http://eloquentjavascript.net/index.html>
- *CS101-Introduction to Computing Principles*, by Nick Parlante, Stanford University, 2014, available online: <http://web.stanford.edu/class/cs101>

Major prerequisites by topic:

- None

Course objectives:

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

1. Apply the basic concepts, principles and terminology of computing.
2. Describe the components of an information system: people, procedures, software, hardware and data.
3. Describe the fundamental features of computer networks, including connectivity, communication systems and the Internet.
4. Apply the above concepts in communication with each other.
5. Distinguish and relate computing to situations of everyday life.
6. Describe and discuss the societal, legal and ethical impact of computing in modern society.
7. Write simple program in script language and apply programming skill to some specific problems.
8. Understand how problems and systems works and hence develop the ability to lean and use application software

Class/laboratory schedule:

Timetabled work in hours per week			No of teaching weeks	Total hours	Total credits	No/Duration of exam papers
Lecture	Tutorial	Practice				
3	Nil	Nil	14	42	3	2 hours

Student study effort required:

Class contact:	
Lecture	42 hours
Other study effort	
Self-study and assignment	42 hours
Total student study effort	84 hours

Student assessment:

Final assessment will be determined on the basis of:

Class Participation	10%
Assignments and exercises	30%
Projects	30%
Tests	30%

Course assessment:

The assessment of course objectives will be determined on the basis of:

- Homework, projects, in-class exercises, quizzes and exams
- Course evaluation

Course outline:

- Building mobile apps with App Inventor 2
- Structure of modern software
- Computer hardware and their functions in a computer system
- Computer Ethics: Cyber laws, hacking and digital divide
- The Internet and the World Wide Web
- E-commerce nowadays
- From App Inventor to JavaScript programming

Persons who prepared this description:

Mr. Teng Lam

Part B – General Course Information and Policies

Instructor: Mr. Teng Lam
Office hour: Mon.: 15:00-16:00 (E6-3124)
Tue.: 12:00-13:00 (E6-3124)
Thu.: 15:00-16:00 (E6-3124)
Fri.: 10:00-11:00 (E6-3124)
Phone: 8822 4580
Email: tlam@umac.mo

Grading distribution:

Percentage Grade	Final Grade	Percentage Grade	Final Grade
100 - 93	A	92 - 88	A–
87 - 83	B+	82 - 78	B
77 - 73	B–	72 - 68	C+
67 - 63	C	62 - 58	C–
57 - 53	D+	52 - 50	D
below 50	F		

Student Disabilities Support Service:

The University of Macau is committed to providing an equal opportunity in education to persons with disabilities. If you are a student with a physical, visual, hearing, speech, learning or psychological impairment(s) which substantially limit your learning and/or activities of daily living, you are encouraged to communicate with your instructors about your impairment(s) and the accommodations you need in your studies. You are also encouraged to contact the Student Disability Support Service of the Student Counselling and Development Section (SCD), which provides appropriate resources and accommodations to allow each student with a disability to have an equal opportunity in education, university life activities and services at the University of Macau. To learn more about the service, please contact SCD at scd.disability@umac.mo, or 8822 4823 or visit the following website: http://www.umac.mo/sao/scd/sds/aboutus/en/scd_mission.php