

**University of Macau**  
**Department of Computer and Information Science**  
**CISB361 – Internship II**  
**Syllabus**  
**2<sup>nd</sup> Semester 2014/2015**  
**Part A – Course Outline**

**Elective course in Computer Science**

**Course description:**

1.5 credits. Internship provides students a professionally-oriented experience in areas relevant to the fields of study and/or career goal. It is a way for students to experience the working world while receiving guidance and feedback from their academic advocates. Internship is approved jobs and must be arranged through the internship coordinator or the department head. Upon completion of the internship, the students must submit a written report for assessment. To receive credits, the student must work with a faculty member and a work supervisor to develop a significant project in Computer Science.

**Prerequisite:**

- None

**Course objectives\*:**

1. To provide students an opportunity to gain practical on-the-job experience in the computer science career field.
2. To provide an opportunity for students to further develop their critical thinking, problem-solving, and skills that we believe to be critical to personal growth, and career readiness.
3. To provide an opportunity for students to develop interpersonal skills and leadership ability in an organization and/or industry related to their career aspirations.

**Internship schedule:**

Minimum of 75 hours per semester (14 weeks)

**Contribution of course to meet the professional component:**

This course prepares students with practical on-the-job experience in the computer science career field.

**Relationship to CS program objectives and outcomes:**

This course primarily contributes to Computer Science program outcomes that develop student abilities to:

- (a) An ability to apply knowledge of computing and mathematics appropriate to the programme outcomes and to the discipline;
- (b) An ability to apply knowledge of a computing specialisation, and domain knowledge appropriate for the computing specialisation to the abstraction and conceptualisation of computing models;
- (c) An ability to analyse a problem, and identify and define the computing requirements appropriate to its solution;
- (d) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs with appropriate consideration for public health and safety, social and environmental considerations;
- (f) An understanding of professional, ethical, legal, security and social issues and responsibilities;
- (g) An ability to communicate effectively with a range of audiences;
- (h) An ability to analyse the local and global impact of computing on individuals, organisations, and society;
- (i) Recognition of the need for and an ability to engage in continuing professional development;

## **Program Outcomes**

(a) An ability to apply knowledge of computing and mathematics appropriate to the programme outcomes and to the discipline;
(b) An ability to apply knowledge of a computing specialisation, and domain knowledge appropriate for the computing specialisation to the abstraction and conceptualisation of computing models;
(c) An ability to analyse a problem, and identify and define the computing requirements appropriate to its solution;
(d) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs with appropriate consideration for public health and safety, social and environmental considerations;
(e) An ability to function effectively on teams to accomplish a common goal;
(f) An understanding of professional, ethical, legal, security and social issues and responsibilities;
(g) An ability to communicate effectively with a range of audiences;
(h) An ability to analyse the local and global impact of computing on individuals, organisations, and society;
(i) Recognition of the need for and an ability to engage in continuing professional development;
(j) An ability to use current techniques, skills, and tools necessary for computing practice with an understanding of the limitations;

### **Relationship to CS program criteria:**

<b>Criterion</b>	DS	PF	AL	AR	OS	NC	PL	HC	GV	IS	IM	SP	SE	CN
<b>Scale: 1 (highest) to 4 (lowest)</b>		2	3	4	4	3	3	4		4	2	2	1	

Discrete Structures (DS), Programming Fundamentals (PF), Algorithms and Complexity (AL), Architecture and Organization (AR), Operating Systems (OS), Net-Centric Computing (NC), Programming Languages (PL), Human-Computer Interaction (HC), Graphics and Visual Computing (GV), Intelligent Systems (IS), Information Management (IM), Social and Professional Issues (SP), Software Engineering (SE), Computational Science (CN).

### **Course coordinator:**

Dr. Sam Chao, Assistant Professor of Computer Science

### **Persons who prepared this description:**

Dr. Sam Chao, 2 December 2014

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