THE UNIVERSITY OF MELBOURNE
Melbourne School of Engineering

ENGR90033 Internship

Work Integrated Learning

School of Computing and Information Systems (C&IS)
and
Australian Computer Society (ACS)

ACS has offered the following Graduate Attributes for CIS students, however ACS has not endorsed these Graduate Attributes

(6.3) ICT Graduate Attributes

Graduate attributes for initial professional practice in ICT form a set of individually assessable outcomes that are indicative of the potential competency of a professional beginning her/his professional practice.

The graduate attributes are exemplars of the attributes expected of a graduate from an accredited program. Each attribute is a discrete statement of an expected capability, qualified, if necessary, by a range of indicators appropriate to the type of program.

ACS Accreditation evaluates how ICT Graduate Attributes have been addressed by each program submitted for accreditation. It also validates how each program addresses the CBOK core knowledge areas and general ICT knowledge areas.

A qualification at AQF level 7 (or above) is a basic requirement for an ACS accredited program for initial professional practice. Hence the AQF level 7 graduate attributes are adopted as the starting point (see Appendix C). They are refined with knowledge specific requirements for the ICT industry.

ICT Graduate Attributes:

1. Graduates will have broad and coherent knowledge and skills for ICT professional work and/or further learning in a global economy. This knowledge should extend to being innovative and entrepreneurial as appropriate to the ICT occupation they are pursuing.
2. Graduates will have broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice in ICT.
3. Graduates will have well-developed cognitive, technical and communication skills to select and apply methods and technologies to:
   3a. analyse and evaluate information to complete a range of activities in their ICT area of expertise;
   3b. analyse, generate and transmit solutions to unpredictable and sometimes complex ICT problems;
   3c. transmit knowledge, skills and ideas to others
4. Graduates at this level will apply knowledge and skills to demonstrate autonomy, well-developed judgement and responsibility:
   4a. in contexts that require self-directed work and learning;

4b. within broad parameters to provide specialist advice and functions

To support international mobility of ICT graduates, ACS participates in the Seoul Accord. The Accord provides mutual recognition of accredited academic computing programs that prepare graduates for professional practice.

[For comparative purposes, the Accord's documented graduate attributes are summarised in Appendix D]

Appendix D : Graduate attributes – Seoul Accord

Seoul Accord Computing Professional (equivalent to AQF Bachelors Degree) Knowledge for Solving

Computing Problems
Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.

Problem Analysis
Identify and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

Design/ Development of Solutions
Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs.

Modern Tool Usage
Create, select, or adapt and then apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations

Individual and Team Work
Function effectively as an individual and as a member or leader of a team in multidisciplinary settings.

Communication
Communicate effectively with the computing community about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

Computing Professionalism and Society
Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.

Ethics
Understand and commit to professional ethics, responsibilities, and norms of professional computing practice.

Life-long Learning
Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional.

Adapted from Seoul Accord Graduate Attributes:
http://www.seoulaccord.com/accord/contents.jsp?menu_l=144&menu_m=195&menu_s=236

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