# 384AA Bachelor of Computer Science (Honours)

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| **Year and Campus:** | 2011 - Parkville |
| **CRICOS Code:** | 037236G |
| **Fees Information:** | Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees |
| **Level:** | Undergraduate |
| **Duration & Credit Points:** | 100 credit points taken over 12 months full time. |
| **Coordinator:** | Dr Andrian Pearce |
| **Contact:** | Melbourne School of Engineering<br>**courseinfo@eng.unimelb.edu.au (mailto:courseinfo@eng.unimelb.edu.au)**<br>**http://www.eng.unimelb.edu.au (http://www.eng.unimelb.edu.au)** |
| **Course Overview:** | The BCS (Honours) program is designed to:<br># Provide an introduction to the process and practice of research in computer science<br># Enable the acquisition of specialised research skills<br># Encourage the development of the ability to think critically and independently<br># Consolidate and extend the student's understanding of a range of aspects of the disciplines of computer science and software engineering; and<br># Improve oral and written communication skills |
| **Objectives:** | On completion of this course graduates should:<br># Have a sound fundamental understanding of the scientific principles underlying technologyHave acquired the educational and professional standards of the professional institutions with which the school's courses are accredited<br># Possess a broad knowledge base of their chosen discipline and of other disciplines to facilitate effective communication with those other professionals with whom engineers routinely communicate<br># Be able to apply the basic principles underlying the management of physical, human and financial resources<br># Have acquired the mathematical and computational skills necessary for the solution of theoretical and practical problems Possess analytical, problem-solving and design skills, including those appropriate for sustainable developmentHave verbal and written communication skills that enable them to contribute substantially to society<br># Have acquired lifelong learning skills for further development professionally and for meeting future changes in technology Have acquired a sense of professional ethics and responsibility towards the profession and the communityHave developed the interpersonal and management skills required by engineers in undertaking professional activities; and<br># Be able to enact the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development |
| **Course Structure & Available Subjects:** | A two-semester program on a full-time basis comprising 100 points as follows:<br>Honours thesis component (37.5 points, normally 12.5 points in first semester of enrolment and 25 points in second semester of enrolment):<br># COMP40001 Computer Science Research Project, or equivalent Research Project subjects totalling 37.5 points<br>Advanced coursework subjects (62.5 points):<br>Five subjects totalling 62.5 points, consisting of any study-level 0 or study-level 6 subjects taught by the Department, with the exception of the subjects listed below.<br>Students may also enrol in up to 25 points of subjects at the honours or masters level of study in cognate areas from outside the Department, subject to approval being granted by the Honours Coordinator. |
| **Majors/Minors/ Specialisations** | None<br>None |

**Subject Options:**

| Subject | Study Period Commencement: | Credit Points: |
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| COMP40001 Computer Science Research Project | Not offered 2011 | 37.50 |

Students are NOT allowed to enrol in the following project-based subjects as part of the 62.5 points of Advanced coursework

# 433-659 Distributed Computing Project
# 433-690 IT Minor Research Project
# 433-699 Minor Research Project
# SWEN40001 Advanced Software Engineering Project
# 433-603 Masters Software Engineering Project
# 433-604 Masters Advanced Software Engineering Project"

600 level subjects have been listed below(please note subjects may not be offered every year) :

| Subject | Study Period Commencement: | Credit Points: |
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| SWEN90002 Engineering for Internet Applications | Not offered 2011 | 12.50 |
| COMP90010 Web Technologies and Applications | Semester 1 | 12.50 |
| COMP90044 Research Methods | Not offered 2011 | 12.50 |
| SWEN90003 IT Project Management | Not offered 2011 | 12.50 |
| COMP90014 Algorithms for Functional Genomics | Not offered 2011 | 12.50 |
| COMP90016 Computational Genomics | Not offered 2011 | 12.50 |
| COMP90015 Distributed Systems | Not offered 2011 | 12.50 |
| COMP90024 Cluster and Grid Computing | Not offered 2011 | 12.50 |
| COMP90048 Declarative Programming | Not offered 2011 | 12.50 |
| COMP90049 Knowledge Technologies | Not offered 2011 | 12.50 |
| SWEN90009 Software Requirements Analysis | Not offered 2011 | 12.50 |
| COMP90017 Sensor Networks and Applications | Not offered 2011 | 12.50 |

**Assessment**

**Hurdle assessment requirements**

Students enrolled in the BCS (Honours) must pass at least 100 points of approved subjects, including COMP40001 Computer Science Research Project, and must have a weighted average mark (calculated over the best 100 points of such approved subjects, but always including COMP40001 Computer Science Research Project) of at least 65 per cent.
Students enrolled in the BCS (Honours) are also expected to have a satisfactory level of attendance at departmental seminars.
Students will be advised of hurdle requirements for the individual coursework subjects at the commencement of each subject.

**Components of assessment**

The BCS (Honours) program comprises a research project subject and five advanced coursework subjects. These subjects with their relative weightings are as follows:

# COMP40001 Computer Science Research Project = 37.5%
# Advanced Coursework subjects, five at 12.5 points each = 62.5%

The final honours grade is the weighted average mark over the 100 points included in these two components. Students who complete more than 62.5 points of advanced coursework will have

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| | their final honours grade calculated as their weighted average mark over the 100 points of study obtained by including their best 62.5 points of advanced coursework. |
| **Entry Requirements:** | To enter the BCS (Honours), students must have:<br># Completed a BCS or equivalent program as assessed by the department<br># Passed at least 25 points of 100-level mathematics or statistics; and<br># Attained a final-year average mark of at least 65<br># Students should also note that study of mathematics or statistics at the second-year level is strongly recommended<br>Students from other institutions and other backgrounds should contact the honours coordinator to determine their eligibility for entry to the BCS (Honours) degree. |
| **Core Participation Requirements:** | For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/ |
| **Graduate Attributes:** | Graduate Attributes:Ability to undertake problem identification, formulation, and solutionAbility to utilise a systems approach to complex problems and to design and operational performanceCapacity for creativity and innovationAbility to manage information and documentation |