

# SWEN90013 Masters Advanced Software Project

| <b>Credit Points:</b>                           | 25  |                |  |         |                            |                |   |            |       |
|---|---|----------------|--|---------|----------------------------|----------------|---|------------|-------|
| <b>Level:</b>                                   | 9 (Graduate/Postgraduate)   |                |  |         |                            |                |   |            |       |
| <b>Dates &amp; Locations:</b>                   | 2012, Parkville<br>This subject commences in the following study period/s:<br>Year Long, Parkville - Taught on campus.  |                |  |         |                            |                |   |            |       |
| <b>Time Commitment:</b>                         | Contact Hours: 24 hours consisting of 12 two-hours workshops, one per week Total Time Commitment: 240 hours   |                |  |         |                            |                |   |            |       |
| <b>Prerequisites:</b>                           | <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SWEN90014 Masters Software Engineering Project</td> <td>Year Long</td> <td>25</td> </tr> </tbody> </table>   |                |  | Subject | Study Period Commencement: | Credit Points: | SWEN90014 Masters Software Engineering Project  | Year Long  | 25    |
| Subject   | Study Period Commencement:  | Credit Points: |  |         |                            |                |   |            |       |
| SWEN90014 Masters Software Engineering Project  | Year Long   | 25             |  |         |                            |                |   |            |       |
| <b>Corequisites:</b>                            | None  |                |  |         |                            |                |   |            |       |
| <b>Recommended Background Knowledge:</b>        | <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SWEN40004 Modelling Complex Software Systems</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>   |                |  | Subject | Study Period Commencement: | Credit Points: | SWEN40004 Modelling Complex Software Systems    | Semester 1 | 12.50 |
| Subject   | Study Period Commencement:  | Credit Points: |  |         |                            |                |   |            |       |
| SWEN40004 Modelling Complex Software Systems    | Semester 1  | 12.50          |  |         |                            |                |   |            |       |
| <b>Non Allowed Subjects:</b>                    | <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SWEN40001 Advanced Software Engineering Project</td> <td>Year Long</td> <td>25</td> </tr> </tbody> </table>  |                |  | Subject | Study Period Commencement: | Credit Points: | SWEN40001 Advanced Software Engineering Project | Year Long  | 25    |
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| SWEN40001 Advanced Software Engineering Project | Year Long   | 25             |  |         |                            |                |   |            |       |
| <b>Core Participation Requirements:</b>         | <p>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:<a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a></p>                                      |                |  |         |                            |                |   |            |       |
| <b>Coordinator:</b>                             | Dr Timothy Miller   |                |  |         |                            |                |   |            |       |
| <b>Contact:</b>                                 | Associate Professor Tim Baldwin<br>email: <a href="mailto:tbaldwin@unimelb.edu.au">tbaldwin@unimelb.edu.au</a> ( <a href="mailto:tbaldwin@unimelb.edu.au">mailto:tbaldwin@unimelb.edu.au</a> )  |                |  |         |                            |                |   |            |       |
| <b>Subject Overview:</b>                        | <p>This subject gives students a second project experience. Students will work in large teams to develop a non-trivial software system for an external client using advanced software engineering techniques. In this subject managing the quality built into the final product is extremely important and students will be expected develop and manage processes that achieve high levels of quality and dependability. Workshops are used to explore the application of advanced software engineering techniques to student projects and are drawn from topics in: analysis and modeling, product and project metrics, design and technologies, product testing and measurement and validation.</p> |                |  |         |                            |                |   |            |       |
| <b>Objectives:</b>                              | <p>On completion of the subject students should be able to:</p> <ul style="list-style-type: none"> <li># Design a process and choose techniques to control the quality built into a software system</li> <li># To apply advanced software engineering techniques to the measurement of non-functional aspects of the software system</li> <li># Manage projects involving novel design aspects or advanced technologies</li> </ul>  |                |  |         |                            |                |   |            |       |

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|--|---|
| <b>Assessment:</b>                                 | Students will be assessed individually on their ability to make useful contributions to the project including the management of the project and the products that are produced by the project. Each individual student's mark will be made up of a number of components: (1) the quality of their engineering work as demonstrated by the work that they produce and submit at the end of the project and a team-based oral presentation made at the end of the project (30%) And (2) their role and contribution to the management and governance of the project (30%) (3) teamwork and communication (30%) and (4) the interaction with the students enrolled in SWEN90014 in the role of independent quality assurance assessors (10%)   |
| <b>Prescribed Texts:</b>                           | TBA   |
| <b>Breadth Options:</b>                            | This subject is not available as a breadth subject.   |
| <b>Fees Information:</b>                           | Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>   |
| <b>Generic Skills:</b>                             | <p>On completion of this subject students should have the:</p> <ul style="list-style-type: none"> <li># Ability to apply knowledge of science and engineering fundamentals</li> <li># Ability to undertake problem identification, formulation, and solution</li> <li># Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development</li> <li># Ability to utilise a systems approach to complex problems and to design and operational performance</li> <li># Proficiency in software engineering design</li> <li># Ability to conduct an engineering project</li> <li># Understanding of the business environment</li> <li># Ability to communicate effectively, with the engineering team and with the community at large</li> <li># Ability to manage information and documentation</li> <li># Capacity for creativity and innovation</li> <li># Understanding of professional and ethical responsibilities, and commitment to them</li> <li># Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member</li> <li># Capacity for lifelong learning and professional development</li> </ul> |
| <b>Related Course(s):</b>                          | Bachelor of Computer Science (Honours)  |
| <b>Related Majors/Minors/<br/>Specialisations:</b> | Master of Engineering (Software)  |