

## MEDI40015 Biomedicine Research Project

| <b>Credit Points:</b>                         | 50   |                |                            |                |   |          |       |   |            |       |  |            |    |
|---|--|----------------|----------------------------|----------------|---|----------|-------|---|------------|-------|--|------------|----|
| <b>Level:</b>                                 | 4 (Undergraduate)  |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Dates &amp; Locations:</b>                 | 2015, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus.  |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Time Commitment:</b>                       | Contact Hours: This subject is an individual research project and weekly contact hours will vary depending on the nature of the project. Total Time Commitment: Students should discuss total time commitment with their supervisor but as a guide, a student would be expected to be engaged in their research for an average of thirty hours per week over two semesters.  |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Prerequisites:</b>                         | Students must be enrolled in the Bachelor of Biomedicine (Honours) or Bachelor of Science (Honours) to complete this subject. <table border="1" data-bbox="387 660 1485 920"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>BIOM40001 Introduction To Biomedical Research</td> <td>February</td> <td>12.50</td> </tr> <tr> <td>MEDI40002 Advanced Studies in Biomedicine</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MEDI40014 Biomedicine Research Project</td> <td>Semester 1</td> <td>25</td> </tr> </tbody> </table>  | Subject        | Study Period Commencement: | Credit Points: | BIOM40001 Introduction To Biomedical Research | February | 12.50 | MEDI40002 Advanced Studies in Biomedicine | Semester 1 | 12.50 | MEDI40014 Biomedicine Research Project | Semester 1 | 25 |
| Subject                                       | Study Period Commencement:   | Credit Points: |                            |                |   |          |       |   |            |       |  |            |    |
| BIOM40001 Introduction To Biomedical Research | February   | 12.50          |                            |                |   |          |       |   |            |       |  |            |    |
| MEDI40002 Advanced Studies in Biomedicine     | Semester 1   | 12.50          |                            |                |   |          |       |   |            |       |  |            |    |
| MEDI40014 Biomedicine Research Project        | Semester 1   | 25             |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Corequisites:</b>                          | None   |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Recommended Background Knowledge:</b>      | None   |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Non Allowed Subjects:</b>                  | None   |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Core Participation Requirements:</b>       | For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Equitable Adjustment Procedure (SEAP), academic requirements for this subject are articulated in the Subject Overview, Objectives, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability will impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and the Disability Liaison Unit: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a> |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Coordinator:</b>                           | Dr Kesha Rana  |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Contact:</b>                               | Subject Coordinator<br>Dr Kesha Rana<br><a href="mailto:krana@unimelb.edu.au">krana@unimelb.edu.au</a> ( <a href="mailto:krana@unimelb.edu.au">mailto:krana@unimelb.edu.au</a> )<br>Administrative Coordinator<br>Ms Jo Mayall<br><a href="mailto:jmayall@unimelb.edu.au">jmayall@unimelb.edu.au</a> ( <a href="mailto:jmayall@unimelb.edu.au">mailto:jmayall@unimelb.edu.au</a> )   |                |                            |                |   |          |       |   |            |       |  |            |    |
| <b>Subject Overview:</b>                      | This subject aims to provide opportunities for students to gain an understanding in, and extend the practice of biomedical research.<br>The student will conduct an original research project in a basic or clinical research laboratory under the supervision of a research scientist from the Dept during the period February to November.<br>The student will be introduced to current literature and techniques in specialised areas.<br>The research project will form part of a larger project or the basis of an expanded project. In both cases the work may culminate in an original research publication.  |                |                            |                |   |          |       |   |            |       |  |            |    |

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|   | <p>Students will be enrolled in a combination of the research project subjects indicated below to ensure they have completed a total of 75 points for the research project by the end of their course.</p> <p>MEDI40014 Biomedicine Research Project 25 points (semester 1)<br/> MEDI40015 Biomedicine Research Project 50 points (semester 2)</p>  |
| <b>Learning Outcomes:</b>                     | <ul style="list-style-type: none"> <li># To acquire the ability to absorb information, analyse it critically, and integrate it into the current state of knowledge in the field.</li> <li># To develop hypothesis, formulate aims to address the hypotheses, propose experiments and engage in discussion with other scientists.</li> <li># To acquire and gain experience in experimental techniques and statistical analyses.</li> <li># To acquire technical knowledge specific to the research project</li> <li># To acquire oral and written presentation skills to present original scientific data to an expert audience.</li> <li># To generate a body of original scientific results that will form part of a peer-reviewed, primary research publication</li> </ul>   |
| <b>Assessment:</b>                            | <p>a literature review (up to 3,000 words) of the research project under study 10% (due end March) submission of an abstract (250 words), production of a poster and an oral presentation (5 mins presentation and 10 minutes questions) of the findings of their research project, 7.5% (abstract due end July, oral presentation in September) a written report (thesis) of up to 10,000 words, 75% (due in October), an Oral presentation of thesis results and response to questions after written thesis submission, 7.5%, (15 minutes presentation, 5 minutes questions) (end October)</p>  |
| <b>Prescribed Texts:</b>                      | None  |
| <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>Students will gain the skills necessary to perform hypothesis driven research.</p> <p>In a more general sense that students will learn to:</p> <ul style="list-style-type: none"> <li># design a scientific project to address a specific question whilst considering the ethical principles and processes used in biological research;</li> <li># identify the best experimental approaches to address these questions</li> <li># locate and utilise information available in scientific and medical literature, and ensure an understanding of experimental data in order to construct a rational scientific argument;</li> <li># critically assess, compare and contrast the literature</li> <li># identify unresolved scientific questions</li> <li># apply new research techniques to a specific project;</li> <li># enhance their problem solving skills by undertaking methodological approaches to research;</li> <li># establish time management skills and manage the completion of specific tasks;</li> <li># communicate research results in both written and oral form, including the organisation of knowledge and identification of the potential scope of the research project.</li> </ul> |
| <b>Links to further information:</b>          | <a href="http://www.austinmedicine.unimelb.edu.au">http://www.austinmedicine.unimelb.edu.au</a>   |
| <b>Related Majors/Minors/Specialisations:</b> | Medicine (Austin Health)  |