

## EDUC90470 Learning Area Physics 2

<b>Credit Points:</b>	12.5								
<b>Level:</b>	9 (Graduate/Postgraduate)								
<b>Dates &amp; Locations:</b>	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.								
<b>Time Commitment:</b>	Contact Hours: 36 Total Time Commitment: 170 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>EDUC90469 Learning Area Physics 1</td> <td>February</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	EDUC90469 Learning Area Physics 1	February	12.50
Subject	Study Period Commencement:	Credit Points:							
EDUC90469 Learning Area Physics 1	February	12.50							
<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 Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes 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 website: <a href="http://www.services.unimelb.edu.au/disability">http://www.services.unimelb.edu.au/disability</a>								
<b>Coordinator:</b>	Father Gerard Healy								
<b>Contact:</b>	<b>Contact Us (<a href="https://enquiry.app.unimelb.edu.au/?cc=MGSE-ALL&amp;fn=MGSE">https://enquiry.app.unimelb.edu.au/?cc=MGSE-ALL&amp;fn=MGSE</a>)</b> Call: 13 MELB (13 6352)								
<b>Subject Overview:</b>	<p>This subject prepares teacher candidates for the teaching of secondary school physics, especially VCE Physics Units 2 and 4. Pedagogical methods and learning and teaching approaches appropriate to physics are covered. These include the use of classroom instruction, practical laboratory work, and the use of Information and Communication Technology. The subject also explores assessment of physics. In addition, some coverage is devoted to physics as outlined in the year 7-10 general science component of AusVELS, the framework for the Australian Curriculum in Victoria, and specific areas of the VCE course unlikely to be familiar to teacher candidates.</p> <p>In combined science, shared with the other science methods, teacher candidates will explore pedagogical strategies to engage science learners in the middle years of secondary school.</p> <p>ICT is treated as an integral part of contemporary science teaching practice; where appropriate it is used to support and enhance conceptual understanding and teaching practice.</p>								
<b>Learning Outcomes:</b>	<p>On completion of this subject, teacher candidates will be able to:</p> <ul style="list-style-type: none"> <li># Be skilled teachers of physics with the theoretical frameworks and practical ability to produce effective learning for a wide range of students, including in junior science;</li> <li># Display a solid current knowledge of the physical sciences, educational contexts and how they interact in effective pedagogy; Understand the links between effective planning teaching and evaluation in physics;</li> <li># Use a variety of technologies in the classroom to assist learning in physics classes;</li> <li># Apply physics understandings to familiar and new contexts;</li> <li># Analyse issues and implications relating to scientific and technological developments and analyse and evaluate the reliability of information and opinions presented in the public domain;</li> </ul>								

	<p># Demonstrate the knowledge, skills and abilities to use ICT to support student learning and professional practice.</p> <p>The subject covers a range of the National Professional Standards for Teachers (for Graduate Teachers). In particular, the subject will contribute to students attaining the following standards:</p> <p>2.1 Content and teaching strategies of the teaching area</p> <p>3.3 Use teaching strategies</p> <p>3.4 Select and use resources</p> <p>3.5 Use effective classroom communication</p> <p>4.1 Support student participation</p> <p>4.4 Maintain student safety</p> <p>5.1 Assess student learning</p>
<b>Assessment:</b>	<p>1. Prepare a School Assessed Coursework (SAC) (1200 words) due mid semester (33%). 2. Physics prac or demonstration (equivalent to 1500 words) (34%), incorporating: a. Prepare and present a 30 minute prac or demonstration (If a prac was presented in Semester 1/EDUC90469, then you must do a demonstration, and vice-versa), due in-class during semester; b. A 400-500 word written reflection on the prac/demonstration, a risk assessment and a hand-out, due end of semester. 3. Combined Science component task (33%): Either a project with an inquiry focus (equivalent to 1300 words), due mid-semester, OR a critical analysis of assessment strategies in science teaching (equivalent to 1300 words), due end of semester. NOTE: Teacher candidates doing one Learning Area (LA) science subject will submit the inquiry project for their third piece of assessment while those doing two Learning Area science subjects will submit both tasks listed under the third assessment, completing one for each of their LA science subjects. Attendance at all classes (tutorial/seminars/practical classes/lectures/labs) is obligatory. Failure to attend 80% of classes will normally result in failure in the subject.</p>
<b>Prescribed Texts:</b>	<p>VCAA(2008) VCE Physics Study Design (also available online)VCAA( 2008) Victorian Essential Learning Standards (also available online)Australian Curriculum, Assessment and Reporting Authority (ACARA) websiteA collection of readings</p>
<b>Breadth Options:</b>	<p>This subject is not available as a breadth subject.</p>
<b>Fees Information:</b>	<p>Subject EFTSL, Level, Discipline &amp; Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a></p>
<b>Generic Skills:</b>	<p>On completion of this subject, teacher candidates will have the knowledge, skills and understanding to enable them to:</p> <ul style="list-style-type: none"> <li># Be skilled communicators who can effectively articulate and justify their practices as knowledgeable agents of change.</li> <li># Be flexible and able to adapt to change through knowing how to learn.</li> <li># Understand the significance of developing their practice on the basis of research evidence.</li> <li># Work in teams with skills in cooperation, communication and negotiation.</li> <li># Be independent of mind, responsible, resilient, self-regulating.</li> <li># Have a conscious personal and social values base.</li> </ul>
<b>Links to further information:</b>	<p><a href="http://www.education.unimelb.edu.au">www.education.unimelb.edu.au</a></p>
<b>Related Course(s):</b>	<p>Master of Teaching (Secondary) Master of Teaching (Secondary)</p>