### Course Guides Part A: Course Overview

#### Course Title – Physics A

#### Part A: Course Overview

<table>
<thead>
<tr>
<th>College</th>
<th>Science Engineering and Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>Life and Physical Sciences</td>
</tr>
<tr>
<td>Course Title</td>
<td>Physics A</td>
</tr>
<tr>
<td>Career</td>
<td>PREP</td>
</tr>
<tr>
<td>Credit Points</td>
<td>12</td>
</tr>
<tr>
<td>Pre-requisite Courses and Assumed Knowledge and Capabilities</td>
<td>None</td>
</tr>
</tbody>
</table>

#### Course Description

The purpose of Physics A is to introduce you to the Physics concepts and laboratory skills required for further study at tertiary level in the fields of engineering, applied science and computer science.

In this course you will develop a firm foundation in the methods, ideas, and practical applications of Physics in the key areas of Units and Errors, Vectors (forces in equilibrium), Motion (Newton's laws, energy, momentum, projectiles).

The course will also provide you with skills in the design and conduct of practical investigations including data collection, analysis and critical evaluation of conclusions.

#### Objectives/Learning Outcomes/Capability Development

**Learning outcomes:**

At successful completion of this course you should be able to:

1. Identify key features of units, significant figures and measurement.
2. Estimate errors in experimental measurement.
3. Use vectors in the solution of problems involving statics and dynamics.
4. Analyse worded questions involving forces and motion and use Newton's Laws in their solution.
5. Apply energy conservation principles in solution of dynamics problems.
6. Recognize the common principles of fields, beginning with gravitational fields.
7. Separate x and y components of motion when solving 2D problems.

#### Overview of Learning Activities

You will spend five contact hours per week in the learning activities for this course, in lecture/tutorial mode and practical work, and an equivalent amount of time in self-study, completing exercises and assessment tasks.

You are expected to engage in a range of classroom activities designed to explore, extend and apply material relating to the learning objectives. This will include discussion, completing practical activities, answering questions, conducting
| Overview of Learning Resources | You will be supported in your studies with online resources via myRMITStudies. This portal gives you access to important announcements, staff contact details, the teaching schedule, assessment timelines and a variety of important teaching and learning materials. You can access online learning tools and content for your program and associated courses at myRMIT www.rmit.edu.au/myrmit. |
| Overview of Assessment | Your assessments will include topic tests (quizzes), reports based on practical work and a final semester exam. |
| Course Coordinator Details | Alex Malikotsinas  
Building 51 Level 4 Room 19  
99254144  
alex.malikotsinas@rmit.edu.au |