

## Varsity College Year 10 Engineering – Semester 1, 2024

| Week  | Date  | Topics  | Assessment                    |
|---|---|---|-------------------------------|
| 1   | 22-26 January<br>O-Week<br>Australia Day PH Fri       | <ul style="list-style-type: none"> <li>Workshop induction, OnGuard training, introduction to the unit and assessment.</li> <li>Explore – Newton’s laws of motion</li> </ul>                         |                               |
| 2   | 29 Jan-2 Feb  | <ul style="list-style-type: none"> <li>Explore – Scalar vs Vector quantities</li> <li>Explore – Forces</li> <li>Resolving vectors into Horizontal and Vertical components (trigonometry)</li> </ul> |                               |
| 3   | 5-9 February<br>Swimming Carnival - Thurs             | <ul style="list-style-type: none"> <li>Explore – Mass, Gravity and Weight</li> <li>Vector Analysis – Analytical</li> </ul>  |                               |
| 4   | 12-16 February  | <ul style="list-style-type: none"> <li>Vector Analysis – Problem Solving</li> <li>Explore – Friction</li> </ul>   |                               |
| 5   | 19-23 February  | <ul style="list-style-type: none"> <li>Clarifying Unknowns – Mousetrap specifications</li> <li>Clarifying Unknowns – Coefficient Experiment</li> <li>Explore – Motion graphs</li> </ul>             |                               |
| 6   | 26 Feb-1 Mar<br>GC24 - Wednesday                      | <ul style="list-style-type: none"> <li>Explore - Engineering Problem solving process</li> <li>Explore – Introduction to linear motion</li> <li>Explore – Materials</li> </ul>                       |                               |
| 7   | 4-8 March   | <ul style="list-style-type: none"> <li>Exam Revision</li> </ul>   |                               |
| 8   | 11-15 March   | <ul style="list-style-type: none"> <li>Report – Task Sheet. Assignment set up and layout</li> <li>Report – Transfer class notes and experiment data</li> </ul>                                      | <b>Exam Lesson 3</b>          |
| 9   | 18-22 March<br>GC24 - Thursday                        | <ul style="list-style-type: none"> <li>Explore – Gantt chart, Success Criteria, Knowns, Unknowns, Assumptions and Limitations, Related technical language.</li> </ul>                               |                               |
| 10  | 25-29 March<br>Good Friday PH                         | <ul style="list-style-type: none"> <li>Clarifying Unknowns – Mouse trap data</li> <li>Report – SC Development. Referencing.</li> </ul>  |                               |
| <b>School holidays: Friday March 29 - Sunday April 14</b> |   |   |                               |
| 1   | 15-19 April<br>Cross Country - Wed                    | <ul style="list-style-type: none"> <li>Ideation – Existing designs and concepts designs</li> </ul>  |                               |
| 2   | 22-26 April<br>GC24 - Tuesday<br>Anzac Day PH - Thurs | <ul style="list-style-type: none"> <li>Prototyping and Final Design - Build and modify</li> </ul>   |                               |
| 3   | 29 Apr-3 May  | <ul style="list-style-type: none"> <li>Prototyping and Final Design - Build and modify</li> <li>Related technology - Logger Pro</li> </ul>  |                               |
| 4   | 6-10 May<br>Labour Day PH - Mon                       | <ul style="list-style-type: none"> <li>Prototyping and Final Design – Build and modify</li> </ul>   | Draft due                     |
| 5   | 13-17 May   | <ul style="list-style-type: none"> <li>Prototyping and Final Design - Build and modify</li> </ul>   |                               |
| 6   | 20-24 May   | <ul style="list-style-type: none"> <li>Prototyping and Final Design - Build and modify</li> </ul>   |                               |
| 7   | 27-31 May   | <ul style="list-style-type: none"> <li>Testing week</li> </ul>  | Final Prototype Due           |
| 8   | 3-7 June  | <ul style="list-style-type: none"> <li>Analysing, Evaluation and Recommendations</li> </ul>   |                               |
| 9   | 10-14 June<br>GC24 - Wednesday                        | <ul style="list-style-type: none"> <li>Analysing, Evaluation and Recommendations</li> </ul>   | <b>Project Folio Lesson 3</b> |
| 10  | 17-21 June<br>Athletics Carnival - Thurs              | <b>Exam Block</b>   |                               |
| <b>School holidays: Saturday June 22 - Sunday July 7</b>  |   |   |                               |