**Sample Assessment Outline**

Engineering Studies

ATAR Year 12

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# Sample assessment outline

# Engineering Studies – ATAR Year 12

## Unit 3 and Unit 4

| **Assessment type**  | **Assessment type weighting**  | **Duration** | **Assessment task** |
| --- | --- | --- | --- |
| Design30% | 2% | Semester 1Weeks 1–3 | **Task 1 Part A:** Design project one* develop a comprehensive design brief – description of problem or need or opportunity, incorporating researched examples of existing solutions, resulting in a list of requirements and restrictions
* identify and assess existing solutions
* research and critique materials and components relevant to the design brief
 |
| 10% | Semester 1Weeks 4–8 | **Task 1 Part B:** Design project one * identify and research examples of existing sources of energy
* research differences and impacts of renewable and non-renewable energy

**Task 2:** Devise concepts for project one and select the best option for the solution* identify and research parts, components, materials and energy sources/supplies
* produce annotated pictorial drawings of ideas, in combination with annotated orthographic concept drawings
* evaluate concepts and select the best option
 |
| 2% | Semester 1Week 14 | **Task 5:** Evaluate completed project one* evaluation report may have additional rating table, written conclusions, descriptions and suggestions for improvement
 |
| 2% | Semester 2Weeks 1–3 | **Task 7:** Design project twoNote: project two may be completely separate from project one or it may be the extension of the theme used for project one.* develop a comprehensive design brief – description of problem, incorporating researched examples of existing solutions, resulting in a list of requirements and restrictions
 |
| 10% | Semester 2Weeks 4–9 | **Task 8:** Devise concepts for project two and select the best option for the solution* identify and continue to research existing solutions
* identify and research parts, components, materials and energy sources/supplies
* produce annotated pictorial drawings of ideas
* produce simple annotated orthographic concept drawings
* evaluate concepts and select the best option
 |
| 2% | Semester 2Week 9 | **Task 10:** Research and analyse the life cycle of an engineered product* research and report on the stages of the life cycle of an engineered product
* comment on the impacts of the product on society, business and the environment over the life cycle of the product
 |
| 2% | Semester 2Week 14 | **Task 12:** Evaluate completed project two* produce a written report on, and use photographs of, the completed project two
* include a rating table, written conclusions, descriptions and suggestions for improvement
 |
| **Assessment type**  | **Assessment type weighting**  | **Duration** | **Assessment task** |
| Production30% | 5% | Semester 1Weeks 9–10 | **Task 3:** Produce specifications for the selected solution for project one * working drawings – detailed orthogonal drawings
* lists of materials, parts and components, estimated costing
* develop production plan on a timeline
 |
| 10% | Semester 1Weeks 10–13 | **Task 4:** Production of project one* construct the proposed solution, using prepared production plan, materials and available equipment; record progress in design folio
 |
| 5% | Semester 2Weeks 7–9 | **Task 9:** Produce specifications for project two* working drawings – detailed orthogonal drawings
* lists of materials, parts and components, costing
* develop production plan on a timeline
 |
| 10% | Semester 2Weeks 10–13 | **Task 11:** Production of project two* construct the proposed solution, using prepared production plan, materials and available equipment
* record progress in design folio
 |
| Examination40% | 20% | ExaminationSemester 1Week 15 | **Task 6:** Semester 1 Examination – 2.5 hours, using a modified examination design brief from the syllabusSection One: Core content – 10 multiple-choice (10%) and three or four short or extended-answer questions (30%)Section Two: Specialist field – 10 multiple-choice (10%), then 6–8 short or extended-answer questions (50%) |
| 20% | ExaminationSemester 2Week 15 | **Task 13:** Semester 2 Examination –3 hours, using examination design brief from the syllabusSection One: Core content – 10 multiple-choice (10%) and three or four short or extended-answer questions (30%)Section Two: Specialist field – 10 multiple-choice (10%), then 6–8 short or extended-answer questions (50%) |
| **100%** | **100%** |  |