SAMPLE COURSE OUTLINE

MARINE AND MARITIME STUDIES
ATAR YEAR 11
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Disclaimer

Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the course.
## Unit 1

<table>
<thead>
<tr>
<th>Week</th>
<th>Key teaching points</th>
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| 1–3  | Structure of the syllabus  
• course outline  
• assessment outline  
Marine: Oceanography  
• properties and characteristics of sea water  
• location and characteristics of Western Australian marine ecosystems  
• measuring abiotic and biotic factors of a marine ecosystem  
**Task 1:** Investigation – Testing for salinity |
| 4–5  | Marine: Environmental and resource management  
• salt, seawater, petroleum and gas from the Western Australian marine environment  
• Australian Exclusive Economic Zone  
**Task 2:** Test – Oceanography and Environmental and resource management |
| 6–7  | Maritime: Design  
• common craft design features  
• design features of specific hull designs  
**Task 3:** Investigation – Boat hull design |
| 8–9  | Maritime: History and archaeology  
• impact of world trade patterns and historic sea routes on Western Australian coastal exploration  
• importance of exploration and mapping of the Western Australian coastline  
**Task 4:** Test – Maritime history and archaeology |
| 10–11| Nautical concepts and skills: Power boating  
• trip planning |
| 12–15| Nautical concepts and skills: Power boating  
• rules and regulations  
• safety equipment  
• emergency situations  
• collision avoidance  
• maintenance  
**Task 5:** Practical – Deliver a new crew induction briefing  
**Task 6:** Practical – Power boating skills test |
| 16   | **Task 7:** Examination |
## Unit 2

<table>
<thead>
<tr>
<th>Week</th>
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| 17–20 | Marine: Oceanography  
  • cycling of nitrogen, carbon and water through a marine ecosystem  
  • interdependence of organisms within a marine ecosystem, including food webs  
  • factors that create ocean currents  
  • global surface ocean currents  
  • global atmospheric circulation systems  
  **Task 8:** Test – Oceanography |
| 21–22 | Marine: Environmental and resource management  
  • current issues affecting Western Australia’s fisheries  
  • aquaculture solutions to declining fish stocks  
  **Task 9:** Extended response – Marine resource management in-class assessment |
| 23–24 | Maritime: Design  
  • characteristics of maritime construction materials  
  • variation in vessel design according to specific use  
  **Task 10:** Investigation – Comparing marine construction materials: Conservation |
| 25–26 | Maritime: History and archaeology  
  • background and location of Western Australian shipwrecks  
  • historical information found within a shipwreck  
  • Western Australian law protecting wreck sites  
  • factors that influence the selection of artefacts for conservation and display  
  **Task 11:** Test – Maritime history and archaeology |
| 27–29 | Nautical concepts and skills: Seamanship skills  
  • operating a vessel safely  
  • using berthing and mooring equipment  
  • tying knots and appropriate use, including: reef, bowline, sheet bend, clove hitch, round turn and two half hitches, coiling, throwing a line, using bitts and cleats  
  • conducting a safety briefing  
  • preparation and starting of motors  
  • skippers logging on and logging off  
  • departing the berth  
  • performing a man overboard  
  • driving a transit  
  • performing a controlled stop  
  • returning to the berth (secures vessel)  
  **Task 12:** Practical – Rope skills test |
| 30–31 | Nautical concepts and skills: Charting skills  
  • estimating a position  
  • position fixing: single bearing fix, and triangulations to locate position  
  • performing distance, speed, time calculations  
  • plotting latitude and longitude  
  • reading tide charts, calculating tide heights, calculating tide charts (rule of 12ths)  
  • calculating depth of water under boat  
  • plotting a course  
  • calculating magnetic variation and bearing conversions  
  **Task 13:** Extended response – Charting skills and passage planning |
| 32 | **Task 14:** Examination |