# 2017/18 Vacation Scholarships

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| **Job Title:** | CSIRO Undergraduate Vacation Scholarships – **Oceans and Atmosphere**  |
| **Reference No:** | 43704 |
| **Classification:** | CSOF1.1  |
| **Stipend:** | $1462.77 per fortnight (before tax) |
| **Location:** | Please refer to the list of ***Projects*** at the end of this document |
| **Tenure:** | 8 to 12 weeks from November 2017 to February 2018 |
| **Role Purpose:** | The 2017/18 Vacation Scholarship Program is designed to provide students with the opportunity to work on real-world problems in a leading R&D organisation. Participation in the Vacation Scholarship Program has influenced previous scholarship holders in their choice of further study and future career options. Many have gone on to pursue a PhD in CSIRO or to build a successful research career within CSIRO, a university or industry. |
| **Project Description:** | Please refer to the list of ***Projects*** at the end of this document. *If you require more information please contact the person listed for the project.* |
| **Eligibility/** **Pre-Requisites:** | To be eligible to apply you must be an Australian/New Zealand Citizen, Australian Permanent Resident, or an international student who has full work rights for the 8 to 12 weeks duration (does not require visa sponsorship).Vacation scholarships are for students who:* are currently enrolled at an Australian university;
* have completed at least three years of a full-time undergraduate course (however exceptional second year students may be considered);
* have a strong academic record (credit average or higher); and
* intend to go on to honours and/or postgraduate study.
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| **How to Apply:**  | Please apply online at [www.csiro.au/careers](http://www.csiro.au/careers). **You will be required to:**1. select your **top 2 preferred research projects** in order of preference;
2. submit a **resume/cover letter** (as one document) which includes:
* the reasons why the research project/s you have selected are of interest to you; and how your previous skills/knowledge and experience meets the project requirements;
* an outline of your longer-term career aspirations and detail how this program will help you achieve them; and
* using the project numbers listed below, list in order of preference, **all of the projects** you are interested in.
1. upload your **academic results** in the ‘***Requested Information’*** field.

**Referees:** If you would like to include referees (either work or university lecturers/ tutors)in your application, please add their name and contact details into your resume**.** If you experience difficulties applying online call 1300 984 220 and someone will be able to assist you. Outside business hours please email: csiro-careers@csiro.au.  |

**There are 3 projects available in Oceans and Atmosphere:**

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| **Project No.** |  **Location** |  **Project Title (see the following pages for more information)** |
| [**Oceans and Atmosphere 1**](#_Land_&_Water) | Hobart, TAS | Visualisation, presentation and interpretation of marine geophysical data. |
| [**Oceans and Atmosphere 2**](#_Minerals_2) | Hobart, TAS | Design and Analysis of Undersea Marine Systems  |
| [**Oceans and Atmosphere 3**](#_Minerals_3) | Hobart, TAS | Electronics and Control interface development to support marine systems |

Select the **Project Numbers** above to take you directly to the project details, including relevant fields of study, Project Duties/Tasks and Locations for these projects (which are on the following pages).

Pease read though these and decide **which 2 projects are your preferred choices** as you will need to enter these into your application. If you require more information please contact the person listed for each project.

Note: CSIRO are advertising vacation scholarships by the different business units we have. You can apply for more than one CSIRO business unit, but your application for **Oceans and Atmosphere** should only refer to Oceans and Atmosphere projects, such as Oceans and Atmosphere 1, Oceans and Atmosphere 2, etc.

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| Project Number | **Vacation Scholarships Project Details** |
| Oceans and Atmosphere 1 | **Project Title**Visualisation, presentation and interpretation of marine geophysical data. **Project Description**Visualisation is key to the effective interpretation of bathymetry data. This project aims to develop different ways to visualise and present bathymetric and other geophysical data. The student will learn how to process, visualise and interpret geophysical datasets, and have an opportunity to contribute to the Geophysical Survey and Mapping Team’s visualisation research stream.**Project Duties/Tasks*** Process and integrate bathymetric data sets
* Create multiple resolution surfaces of bathymetry data
* Develop GIS database incorporating disparate data for mission planning.

**Relevant Fields of Study*** Earth Sciences
* Surveying
* Marine Science

**Location:** Hobart, TAS **Contact:** For more details please contact **Tara Martin** on phone on (03) 6232 5054 or email tara.martin@csiro.au |
| Oceans and Atmosphere 2 | **Project Title**Design and Analysis of Undersea Marine Systems **Project Description**This project will allow students to participate in the development of engineering analysis software for use in the design of marine systems. Examples of potential applications include Pressure Vessel analysis, mooring design, and autonomous vehicle design. **Project Duties/Tasks*** Development of data analysis tools for processing and visualising engineering data from field experiments.
* Development of system analysis software to aid in the development of autonomous underwater vehicles.
* Participate in conducting lab experiments and new methods for design and fabrication of marine systems.

**Relevant Fields of Study*** Mechanical Engineering
* Ocean Engineering
* Naval Architecture
* Aerospace Engineering
* Civil / Structural Engineering
* Computer Science / Scientific Programming

**Location:** O&A - Hobart**Contact:** For more details please contact **Andreas Marouchos** on phone on (03) 6232 5433 or email andreas.marouchos@csiro.au |
| Oceans and Atmosphere 3 | **Project Title** Electronics and Control interface development to support marine systems**Project Description**The student is to contribute to the development of a support systems for remote marine platforms; including AUV’s, ROV’s and towed systems. This will include the development of PC and embedded applications as well as opportunities to develop hardware. These tools will be used to help enhance a range of science equipment developed by CSIRO and used to make ocean and atmospheric observations. **Project Duties/Tasks*** Development of control and interface software
* Integration and testing of software tools
* Development of hardware interface units for field use
* Preparation of electronics test and lab equipment
* Other duties.

**Relevant Fields of Study*** Electrical / Computer Engineering
* Computer Sciences

**Location:** Hobart, TAS**Contact:** For more details please contact **Jacques Malan** on phone on 03 6232 5267 or email Jacques.malan@csiro.au |