ATOC30003 Atmosphere Ocean Interaction

Credit Points:	12.5
Level:	3 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 2 x one hour lectures per week; 1 x two hour practical class per week. Total Time Commitment: Estimated total time commitment of 170 hours
Prerequisites:	

Subject	Study Period Commencement:	Credit Points:
ATOC30004 Dynamical Meteorology and Oceanography	Semester 1	12.50

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Assoc Prof Kevin Walsh
Contact:	**kevin.walsh@unimelb.edu.au (mailto:kevin.walsh@unimelb.edu.au)**
Subject Overview:	This subject gives an overview of the interaction between the ocean and the atmosphere on a wide range of time and space scales. Topics include the planetary boundary layers in the ocean and the atmosphere, momentum and heat exchanges, fundamental causes of ocean circulation, ocean wave theory including wind-waves, Kelvin and Rossby waves, ENSO theory, tidal theory, and the effects of air-sea interaction on the dynamics of tropical cyclones.
Learning Outcomes:	The objectives of this subject are to develop a quantitative understanding of the influence of air-sea interaction on weather and climate systems.
Assessment:	Four problem sets during semester, totalling 2000 words (each worth 10%); a 3-hour written examination in the examination period (60%). The problem sheets will be set at approximately equal intervals during semester and three weeks will be allowed for their completion.
Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2016/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2016/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/B-MUS)**

	You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject students should have developed the following generic skills: an ability to perform complex calculations relevant to the development of a physical understanding of the atmosphere and ocean
Notes:	This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course.
Related Majors/Minors/ Specialisations:	Climate and Weather Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED