ATOC30003 Atmosphere Ocean Interaction

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2010, 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 120 hours
Prerequisites:	**625-334 Dynamical Meteorology and Oceanography (/view/2010/625-334)**
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Students may only gain credit for one of # 625-333 Atmosphere and Ocean Interaction # 625-331 Atmosphere-Ocean Interaction (prior to 2009).
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Coordinator:	Assoc Prof Kevin Walsh
Contact:	**Email: 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, the hydrologic cycle, sea ice and its modulation of air-sea interaction, ocean wave theory including wind-waves, Kelvin and Rossby waves, ENSO theory, tidal theory, the effects of air-sea interaction on the dynamics of tropical cyclones.
Objectives:	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 2-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/2010/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2010/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/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 Course(s):	Bachelor of Science
Related Majors/Minors/ Specialisations:	Atmosphere and Ocean Science Atmosphere and Ocean Sciences