ATOC90005 Atmosphere Ocean Interaction and Climate

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: Forty hours comprising two weeks of workshop-style lecture and practical activities 10.00am - 4.00pm daily, with breaks as appropriate to conduct exercises and project work. Total Time Commitment: 170 hours
Prerequisites:	The following subject, or equivalent (can be taken concurrently).

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:	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. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit.
Coordinator:	Assoc Prof Kevin Walsh
Contact:	Email: **k (mailto:kevin.walsh@unimelb.edu.au) evin.walsh@unimelb (mailto:kevin.walsh@unimelb) .edu.au (mailto:kevin.walsh@unimelb.edu.au)**
Subject Overview:	This course aims to introduce the student to processes of atmosphere-ocean interaction, their importance in the climate system and its variability, with a particular emphasis on tropical meteorology. Specific topics will include: wind and buoyancy driven ocean circulation, atmospheric convection, atmospheric and oceanic wave phenomena, SST and atmospheric circulation, El Nino Southern Oscillation (ENSO), decadal to centennial scale variability and large scale modelling.
Learning Outcomes:	On completion of this subject students will be able to: # explain fundamental processes of atmosphere-ocean interaction; # describe the importance of these processes in the climate system and its variability, with a particular emphasis on tropical meteorology; # review and synthesise the current literature, making judgements in cases of conflicting hypotheses.
Assessment:	Three practical exercises totalling not more than 2000 words (30%), a critical review of a journal article not exceeding 1,000 words with a 15 minute class presentation (60%). participation (10%). Assessment of practical work is due within two weeks of the completion of intensive lecture modules; assignment work is due within six weeks.
Prescribed Texts:	None

Recommended Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject students will have gained experience in: # developing the ability to exercise critical judgement; # rigorous and independent thinking; # adopting a problem-solving approach to new or unfamiliar tasks; # high-level written report presentation skills; # oral communication and presentation skills.
Related Course(s):	Master of Science (Earth Sciences)
Related Majors/Minors/ Specialisations:	Earth Sciences Earth Sciences Honours Program - Earth Sciences