

600604 ENVIRONMENTAL RISK ASSESSMENT

Credit points: 12.5

Coordinators: Dr Terry Walshe and Prof Mark Burgman

Semester: 1

Contact: 24 hours lectures and 18 hours practical/tutorial sessions

Please visit the student information system for timetabling details at <https://sis.unimelb.edu.au/cgi-bin/subjects.pl>

Description: The subject outlines the history and social context of risk, and introduces the psychology of risk perception. On completing this subject you will be familiar with different concepts of risk, means of estimation, and the strengths and flaws of different approaches. The subject outlines exposure pathways, the ecological processes associated with contamination in aquatic and terrestrial ecosystems. You will develop conceptual models and estimate exposures to risk and responses in human environments and ecological systems. You will learn how to perform fundamental hazard and ecological risk assessment procedures, empirical modelling, logic trees, interval arithmetic, Monte Carlo for static and dynamic problems, and applications to species, community and ecosystem problems. The application of these tools is outlined within processes of risk management and communication.

Assessment: You are required to complete an application of the methods to a real, work-based problem. A report from this work is worth 20% of your mark. The balance is made up of 30% for practicals and 50% for a 3-hour exam.