

108-449 Conservation Materials Chemistry

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: A 1-hour lecture and a 2-hour tutorial or practical class each week Total Time Commitment: Total of 10 hours per week.
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p></p>
Coordinator:	Ms Caroline Kyi
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Subject Overview:	The subject deals with the physical-organic chemistry of cultural heritage items and of products and formulations used in all aspects of conservation. It examines the relationship between the chemical structure, properties, and uses of solvents, detergents, adhesives, consolidants, paints, plastics, fibres, stabilisers, emulsifiers and their interaction with cultural heritage objects. On completion students will have an understanding of surface colloid chemistry, organic chemistry, polymer science, viscosity, solubility parameters, deterioration and oxidative ageing, and should comprehend the relationship between chemistry and cultural heritage conservation. Students should recognise chemically based conservation problems, understand materials chemistry, and be able to apply diverse chemical principles to conservation issues. They should be able to develop analytical tests for the effectiveness of conservation materials.
Objectives:	<ul style="list-style-type: none"> # comprehend the relationship between chemistry and cultural heritage conservation; # have a capacity to apply diverse chemical principles in the explanation of conservation problems and the development of treatment options; # have developed skills in recognising chemical-based conservation problems; # be able to set up projects to analyse the effectiveness, side effects and stability of conservation materials; # an understanding of the chemical structure of cultural heritage items; # an awareness of the interaction of chemicals with cultural heritage items.
Assessment:	A take home exam 10% (held during semester), laboratory practical reports totalling 2500 words 30% (one due during semester and one due at the end of semester) and a 2500 word technical essay 30% (due end of semester).
Prescribed Texts:	None

Recommended Texts:	Mills, J. S. and White, R. (1994) The Organic chemistry of museum objects, Butterworth-Heinemann, Oxford. Lide, D. R. (1996) Handbook of Chemistry and Physics, CRC Press.
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:	<ul style="list-style-type: none"># demonstrate sound and independent critical and ethical thinking in their choice of materials and processes;# be able to present written and oral communication to a professional standard regarding their treatment and material choices.#
Related Course(s):	Master of Cultural Material Conservation Master of Planning and Design (Architectural History & Conservation)CW Postgraduate Diploma in Arts (Cultural Material Conservation)