

# CUMC40008 Conservation Materials Chemistry

<b>Credit Points:</b>	12.50
<b>Level:</b>	4 (Undergraduate)
<b>Dates &amp; Locations:</b>	2011, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. On campus
<b>Time Commitment:</b>	Contact Hours: A 1-hour lecture and a 2-hour practical class each week Total Time Commitment: Total time commitment 120 hours
<b>Prerequisites:</b>	Postgraduate Diploma in Arts (Cultural Material Conservation) or relevant postgraduate course or admission to the Master of Cultural Material Conservation
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	108-449 Conservation Materials Chemistry
<b>Core Participation Requirements:</b>	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: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>
<b>Coordinator:</b>	Dr Petronella Nel
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<b>Subject Overview:</b>	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.
<b>Objectives:</b>	Upon completion of this subject students should: <ul style="list-style-type: none"> <li># comprehend the relationship between chemistry and cultural heritage conservation</li> <li># have a capacity to apply diverse chemical principles in the explanation of conservation problems and the development of treatment options</li> <li># have developed skills in recognising chemical-based conservation problems</li> <li># be able to set up projects to analyse the effectiveness, side effects and stability of conservation materials</li> <li># have an understanding of the chemical structure of cultural heritage items</li> <li># have an awareness of the interaction of chemicals with cultural heritage items</li> </ul>

<b>Assessment:</b>	Ten laboratory reports 500 words, each worth 10% due during semester.
<b>Prescribed Texts:</b>	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.
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<ul style="list-style-type: none"><li># demonstrate sound and independent critical and ethical thinking in their choice of materials and processes.</li><li># be able to present written and oral communication to a professional standard regarding their treatment and material choices.</li></ul>
<b>Related Course(s):</b>	Master of Cultural Material Conservation Postgraduate Diploma in Arts (Cultural Material Conservation)