

610-341 Inorganic Chemistry IIIB

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| Credit Points: | 12.500 |
| Level: | Undergraduate |
| Dates & Locations: | 2008, This subject commences in the following study period/s: Semester 1, - Taught on campus. |
| Time Commitment: | Contact Hours: 36 lectures and 12 tutorials Total Time Commitment: 120 hours |
| Prerequisites: | Chemistry 610-240 or 610-241. Concurrent enrolment in 610-345 is strongly recommended. |
| Corequisites: | None |
| Recommended Background Knowledge: | None |
| Non Allowed Subjects: | Credit cannot be gained for this subject and 610-340. |
| 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 participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit. |
| Coordinator: | Dr S P Best |
| Subject Overview: | <p>Upon completion of this subject, students should comprehend the main types of reactions of coordination compounds, cluster molecules, organometallic species and biomolecules; understand the reasons for the different types of structures observed for such molecules; have developed a knowledge of the procedures for determination of the structures via spectroscopic and related techniques; be able to identify the mechanisms of the more important reactions and evaluate the effect that this has on the chemistry; have an appreciation of the electronic structure and photochemistry of metal complexes; understand the structure of the solid state; and apply concepts developed in relation to small molecule chemistry to catalysis in biological and non-biological systems.</p> <p>The lecture course covers symmetry, group theory, and their applications; metal and main group chemistry; coordination, cluster and organometallic species; reactivity, including redox and catalytic processes; and applications of nuclear magnetic resonance and related structural techniques.</p> <p>This subject will provide the student with the opportunity to establish and develop the following generic skills: an advanced understanding of the changing knowledge base, problem-solving and critical thinking skills, an ability to evaluate the research and professional literature, a capacity to apply concepts developed in one area to a different context, and the ability to use conceptual models to rationalise observations.</p> |
| Assessment: | Written assignments not exceeding six pages due during the semester (10%); a 3-hour written examination in the examination period (90%). |
| Prescribed Texts: | None |
| Breadth Options: | This subject is a level 2 or level 3 subject and is not available to new generation degree students as a breadth option in 2008. This subject or an equivalent will be available as breadth in the future. Breadth subjects are currently being developed and these existing subject details can be used as guide to the type of options that might be available. 2009 subjects to be offered as breadth will be finalised before re-enrolment for 2009 starts in early October. |
| Fees Information: | Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees |

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| Notes: | Students enrolled in the BSc (pre-2008 BSc), BAsc or a combined BSc course will receive science credit for the completion of this subject. |
| Related Course(s): | Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Science |