



# University of Pretoria Yearbook 2022

## Inorganic chemistry 285 (CMY 285)

**Qualification** Undergraduate

**Faculty** Faculty of Natural and Agricultural Sciences

**Module credits** 12.00

**NQF Level** 06

**Programmes** BEd (Senior Phase and Further Education and Training Teaching)

BSc (Computer Science)

BSc (Applied Mathematics)

BSc (Biochemistry)

BSc (Chemistry)

BSc (Engineering and Environmental Geology)

BSc (Genetics)

BSc (Geology)

BSc (Human Physiology)

BSc (Mathematics)

BSc (Physics)

BSc (Plant Science)

**Service modules** Faculty of Education

**Prerequisites** CMY 117 and CMY 127

**Contact time** 1 tutorial per week, 2 practicals per week, 4 lectures per week

**Language of tuition** Module is presented in English

**Department** Chemistry

**Period of presentation** Quarter 4

### Module content

Atomic structure, structure of solids (ionic model). Coordination chemistry of transition metals: Oxidation states of transition metals, ligands, stereochemistry, crystal field theory, consequences of d-orbital splitting, chemistry of the main group elements, electrochemical properties of transition metals in aqueous solution, industrial applications of transition metals. Fundamentals of spectroscopy and introduction to IR spectroscopy. During practical training students learn to acquire and report data ethically. Practical training also deals with the misuse of chemicals and appropriate waste disposal to protect the environment and meet the UN sustainable development goals.

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