

# University of Pretoria Yearbook 2018

## Mineralogy 210 (GMI 210)

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| <b>Qualification</b>          | Undergraduate   |
| <b>Faculty</b>                | <a href="#">Faculty of Engineering, Built Environment and Information Technology</a>                    |
| <b>Module credits</b>         | 16.00   |
| <b>Programmes</b>             | <a href="#">BEng Metallurgical Engineering</a><br><a href="#">BEng Metallurgical Engineering ENGAGE</a> |
| <b>Prerequisites</b>          | No prerequisites.   |
| <b>Contact time</b>           | 2 tutorials per week, 4 lectures per week   |
| <b>Language of tuition</b>    | Module is presented in English  |
| <b>Department</b>             | Materials Science and Metallurgical Engineering   |
| <b>Period of presentation</b> | Semester 1  |

### Module content

Crystallography and internal order in minerals (space groups, unit cells, X-ray diffraction data). Bonding, mineral chemistry and solid solution (types of solid solution, calculation of mineral formulae and cation valency). Subsolidus reactions and defects in minerals (thermodynamic basis, defects, importance of subsolidus reactions). Classification and crystal structures of minerals. Mineralogical instrumentation and analysis. Major rock types and their classification. Mineralogical aspects of minerals processing.

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