

## University of Pretoria Yearbook 2021

## General chemistry 171 (CHM 171)

| Qualification          | Undergraduate   |
|------------------------|---|
| Faculty                | Faculty of Natural and Agricultural Sciences  |
| Module credits         | 16.00   |
| NQF Level              | 05  |
| Programmes             | BEng Chemical Engineering   |
|                        | BEng Chemical Engineering ENGAGE  |
|                        | BEng Civil Engineering  |
|                        | BEng Civil Engineering ENGAGE   |
|                        | BEng Electrical Engineering   |
|                        | BEng Electrical Engineering ENGAGE  |
|                        | BEng Electronic Engineering   |
|                        | BEng Electronic Engineering ENGAGE  |
|                        | BEng Metallurgical Engineering  |
|                        | BEng Metallurgical Engineering ENGAGE   |
|                        | BEng Mining Engineering   |
|                        | BEng Mining Engineering ENGAGE  |
| Service modules        | Faculty of Engineering, Built Environment and Information Technology                                |
| Prerequisites          | No prerequisites.   |
| Contact time           | 1 discussion class per week, 1 practical per week, 1 web-based period per week, 4 lectures per week |
| Language of tuition    | Module is presented in English  |
| Department             | Chemistry   |
| Period of presentation | Semester 1  |
|                        |   |

## Module content

General introduction to inorganic, analytical and physical chemistry. Nomenclature of inorganic ions and compounds, stoichiometric calculations concerning chemical reactions, redox reactions, solubilities and solutions, atomic structure, periodicity. Molecular structure and chemical bonding using the VSEPR model. Principles of reactivity, electrochemistry, energy and chemical reactions, entropy and free energy. Appropriate tutorial classes and practicals.



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