



University of Pretoria Yearbook 2022

Research project 400 (NSC 400)

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| Qualification | Undergraduate |
| Faculty | Faculty of Engineering, Built Environment and Information Technology |
| Module credits | 40.00 |
| NQF Level | 08 |
| Programmes | BEng (Metallurgical Engineering) BEng (Metallurgical Engineering) ENGAGE |
| Prerequisites | (NHM 322), or (NMM 320), or (NPM 321), or (NVM 321), finalists only. |
| Contact time | 1 tutorial per week |
| Language of tuition | Module is presented in English |
| Department | Materials Science and Metallurgical Engineering |
| Period of presentation | Year |

Module content

Literature search (using electronic databases of publications, formulating search strategies). Hypothesis formulation and preliminary experimental planning (identifying research question and stating hypothesis, proposing critical experiments, evaluating feasibility of possible experimental approaches). Literature survey (critical evaluation of published information, synthesising available information into a coherent argument, written and oral reporting). Final experimental planning (formulation of experiments with attention to calibration, uncertainty, reliability and safety). Execution of a research project: experimentation (with attention to safety, reliability, calibration and reproducibility); analysis of results to yield data (with statistical analysis of uncertainty); interpretation of data (to test the stated hypothesis); written reporting of results (with updated literature survey, description of experimental approach, data obtained, conclusions, and scientific and industrial implications); oral and poster presentations.

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