

## University of Pretoria Yearbook 2020

## Research project 422 (MRN 422)

**Qualification** Undergraduate

**Faculty** Faculty of Engineering, Built Environment and Information Technology

Module credits 24.00

**Programmes** BEng Mechanical Engineering

BEng Mechanical Engineering ENGAGE

**Prerequisites** Finalist only, MRN 412

**Contact time** 12 other contact sessions per week

**Language of tuition** Separate classes for Afrikaans and English

**Department** Mechanical and Aeronautical Engineering

Period of presentation Semester 2

## **Module content**

The module involves the management of the execution of a project that produces knowledge and understanding of a phenomenon, conclusions and a recommended course of action. The project is undertaken under the supervision of a staff member with the student ultimately taking responsibility for the management of and execution of the project. This module follows onto MSC 412 and deals with the same topic in the same year. The student should be able to demonstrate competence in designing and conducting investigations and experiments and adherence to well defined time-lines and work breakdown structures. An acceptable process consists of but is not restricted to: (a) understanding of the stated problem, (b) developing a work breakdown structure, (c) performing the necessary analyses; (d) selecting and using appropriate equipment or software; (e) construction and instrumentation of an experimental set-up; (f) taking measurements; (g) analysing, interpreting and deriving information from data; (h) drawing conclusions based on evidence; (i) communicating the purpose, process and outcomes in a technical report, presentation and poster.

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