



# University of Pretoria Yearbook 2019

## Programming and information technology 213 (MPR 213)

**Qualification** Undergraduate

**Faculty** [Faculty of Engineering, Built Environment and Information Technology](#)

**Module content** Spreadsheet applications: Formulas and calculations, named ranges, plotting and trend lines, goal seek, linear programming, importing and exporting data, data navigation and filtering. Programming fundamentals: Names and objects, conditional and unconditional looping, branching, functions, modules, packages, reading and writing data files, graphical output (plotting). Solving simple problems using a high level programming language to develop, code and debug programs. Solving complex problems by breaking it down into a number of simple problems using concepts such as functions, modules and available packages. Programming principles are developed through solving mathematics and physics problems.

**Module credits** 16.00

- Programmes**
- [BEng Chemical Engineering](#)
  - [BEng Chemical Engineering Engage](#)
  - [BEng Civil Engineering](#)
  - [BEng Civil Engineering Engage](#)
  - [BEng Industrial Engineering](#)
  - [BEng Industrial Engineering Engage](#)
  - [BEng Mechanical Engineering](#)
  - [BEng Mechanical Engineering Engage](#)
  - [BEng Metallurgical Engineering](#)
  - [BEng Metallurgical Engineering Engage](#)
  - [BEng Mining Engineering](#)
  - [BEng Mining Engineering Engage](#)

**Prerequisites** No prerequisites.

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

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

**Department** Mechanical and Aeronautical Engineering

**Period of presentation** Semester 1



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