

University of Pretoria Yearbook 2022

Systems engineering 410 (BSS 410)

Qualification Undergraduate

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

Module credits 16.00

NQF Level 08

Programmes [BEng \(Industrial Engineering\)](#)

[BEng \(Industrial Engineering\) ENGAGE](#)

Prerequisites No prerequisites.

Contact time 1 discussion class per week, 3 lectures per week

Language of tuition Module is presented in English

Department Industrial and Systems Engineering

Period of presentation Semester 2

Module content

A company's ability to remain competitive hinges increasingly on its ability to develop successful products. In practice this is often determined by how well the company performs systems engineering. Applying the principles of systems engineering allows designers to understand the big picture, i.e. how a product needs to perform technically as well as within its application domain, e.g. environmentally, human interfaces, and so on. This module equips the student with the relevant tools and process understanding to successfully apply systems engineering to product development. Some of these tools and processes include specification practices, requirements engineering, systems engineering management and verification and validation processes.

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