

# University of Pretoria Yearbook 2020

## Project systems engineering 802 (ISE 802)

<b>Qualification</b>	Postgraduate
<b>Faculty</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a>
<b>Module credits</b>	10.00
<b>Programmes</b>	<a href="#">MEng Project Management (Coursework)</a> <a href="#">MSc Project Management (Coursework)</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	20 contact hours per semester
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Engineering and Technology Management
<b>Period of presentation</b>	Semester 1 or Semester 2

### Module content

The PSE process is discussed within the context of the technology-based enterprise. The first objective is to conceptualise and model a tech-based enterprise in terms of core business processes and the interaction amongst them. SE processes are hence understood in the context of the project and organisation. The concepts of “system, project and process” are explained.

The design and development of the total system for the total system life-cycle, taking into account the requirements of all stakeholders is the heart of PSE.

All stakeholders and their requirements are identified, described and managed over time. The system life-cycle stages/phases and related system design processes are focused upon. A number of SE topics, e.g. information and configuration management, life-cycle cost, quality of design, downstream “design to” requirements and logistics are touched on. SE planning within the bigger project plan is investigated. The important and integrating role of the project manager to make SE successful, particularly in the early phases of the project, is highlighted.

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