Business engineering 780 (BSI 780)

Qualification	Postgraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
NQF Level	08
Prerequisites	No prerequisites.
Contact time	24 contact hours
Language of tuition	Module is presented in English
Department	Industrial and Systems Engineering
Period of presentation	Semester 1 or Semester 2

Module content

Organisations are complex systems which consist of people, processes, customers, resources and regulatory environments. Business Engineering (BE) is a discipline which uses an engineering approach towards introducing planned business change into the organisation. This includes formal analysis, design, implementation and maintenance of the holistic business system; requiring a deep understanding and knowledge of the interaction and balance of complex business system elements.

The outcome of the course is to enable the student to understand the art and science of engineering complex business systems. The following topics are covered in the course:

• BE principles for design, implementation and optimisation of complex business systems
• BE programme process which governs the implementation of holistic business changes
• BE programme and project structures
• BE Tools and techniques used throughout the BE lifecycle for engineering modelling and optimisation.
• Business
• Models and innovation approaches
• Integrated Business planning
• Business Process reference models for strategic, tactical, core and support processes.

Business engineering is the ultimate pinnacle of industrial engineering competency – being able to construct business systems serving complicated organisational value propositions. The course requires a full understanding of undergraduate Industrial Engineering modules as well as a postgraduate understanding of resource optimisation, enterprise architecture, and supply chain engineering.

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