



# Universiteit van Pretoria Jaarboek 2017

## Vervaardigingsbeplanning en -beheersisteme 782 (BPZ 782)

<b>Kwalifikasie</b>	Nagraads
<b>Fakulteit</b>	Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie
<b>Modulekrediete</b>	32.00
<b>Programme</b>	BIngHons Bedryfsingenieurswese BScHons Toegepaste Wetenskap Bedryfstelsels
<b>Voorvereistes</b>	Operations Management and Operations Research (advisable but not mandatorily required)
<b>Kontaktyd</b>	48 kontakure per semester
<b>Onderrigtaal</b>	Module word in Engels aangebied
<b>Akademiese organisasie</b>	Bedryfs- en Sisteemingenieursw
<b>Aanbiedingstydperk</b>	Semester 1 of Semester 2

### Module-inhoud

\*Hierdie inligting is slegs in Engels beskikbaar.

Review of MPC, Agile Manufacturing Processes, Models of MPC.

**Section 1:** Review of MPC Theories and Framework

**Section 2:** Research Framework for Problems in Manufacturing Systems

1. Mathematical Model based Problems and their techniques
2. Estimation and Hypothesis based Problems and their techniques

**Section 3:** Introduction to MPC Problems and sample Models

1. Forecasting models
2. Aggregate planning models
3. Lot sizing and disaggregation models
4. Finite Scheduling models
5. Lean Manufacturing Models
6. Basic Distribution and Replenishment Models
7. Basic Supply Chain Structural Analysis and Performance Models

**Section 4:** Agile Panning Problems and Techniques

1. Multi-Level Master Scheduling Techniques
2. Constraint Scheduling - (TOC theory, applications and optimisation)
3. Lean Manufacturing Implementation (from Flow Lean to Process Kaizen )
4. Introduction to CONWIP ideology
5. Introduction to Demand Driven MRP



Die inligting wat hier verskyn, is onderhewig aan verandering en kan na die publikasie van hierdie inligting gewysig word.. Die [Algemene Regulasies \(G Regulasies\)](#) is op alle fakulteite van die Universiteit van Pretoria van toepassing. Dit word vereis dat elke student volkome vertrouwd met hierdie regulasies sowel as met die inligting vervat in die [Algemene Reëls](#) sal wees. Onkunde betreffende hierdie regulasies en reëls sal nie as 'n verskoning by oortreding daarvan aangebied kan word nie.