

## DIPLOMA IN OPERATIONS MANAGEMENT

Dip (Operations Management) - NQF Level 6 (360 credits)

**Qualification code: DPOM19**

SAQA ID: 100968, CHE NUMBER: H16/14321/HEQSF

Campus where offered:

Pretoria Campus

### REMARKS

*a. Admission requirement(s) and selection criteria:*

Acceptance is subject to available capacity according to the Student Enrolment Plan (SEP). Once a programme is full, a waiting list will be in place to provide an opportunity for applicants to fill places of those who did not register on time. Applicants will be informed of their status per official letter from the Office of the Registrar, alternatively, they can check their application status on the TUT website, [www.tut.ac.za](http://www.tut.ac.za).

• **FOR APPLICANTS WITH A SENIOR CERTIFICATE OBTAINED BEFORE 2008:**

**Admission requirement(s):**

A Senior Certificate or an equivalent qualification.

**Recommended subject(s):**

Mathematics.

**Selection criteria:**

Prospective students are assessed by means of a formula for academic merit, based on scholastic performance. Formula for academic merit:

SYMBOL	M-SCORE (HG)	M-SCORE (SG)
A	5	4
B	4	3
C	3	2
D	2	1
E	1	0

To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least **20**.

- Applicants with a score of 24 according to the formula for academic merit will be considered for admission.
- Applicants with a score of 20 to 23 according to the formula for academic merit will be kept on a waiting list from which the applicants with the highest scores will be selected.

• **FOR APPLICANTS WITH A NATIONAL SENIOR CERTIFICATE OBTAINED IN OR AFTER 2008:**

**Admission requirement(s):**

A National Senior Certificate with a bachelor's degree or a diploma endorsement, or an equivalent qualification with an achievement level of at least 3 for English (home language or first additional language) and 3 for Mathematics or Technical Mathematics or 5 for Mathematical Literacy.

**Recommended subject(s):**

None.

**Selection criteria:**

To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least **20**.



**Assessment procedure(s):**

- Applicants with a score of 24 will be considered for admission.
- Applicants with a score of 20 - 23 will be kept on a waiting list from which the applicants with the highest APS will be selected.

- **FOR APPLICANTS WITH A NATIONAL CERTIFICATE (VOCATIONAL) AT NQF LEVEL 4:**

**Admission requirement(s):**

A National Certificate (Vocational) at NQF Level 4 with a bachelor's degree or a diploma endorsement, with at least 50% for English (home language or first additional language), and 40% for Mathematics or 60% for Mathematical Literacy, and 40% for Life Orientation (excluded for APS calculation), and 50% for any other three compulsory vocational subjects.

The certificate must be in any of the following fields: accounting, computer science, economics, finance, hospitality, information technology, management, marketing, office administration or tourism.

**Selection criteria:**

To be considered for this qualification, applicants must have an Admission Point Score (APS) of at least **20**.

**Assessment procedure(s):**

- Applicants with a score of 24 will be considered for admission.
- Applicants with a score of 20 - 23 will be kept on a waiting list from which the applicants with the highest APS will be selected.

b. *Recognition of Prior Learning (RPL), equivalence and status:*  
See Chapter 30 of Students' Rules and Regulations.

c. *Intake for the qualification:*  
January only.

d. *Presentation:*  
Day classes for the first two years and evening classes for the third year.

e. *Minimum duration:*  
Three years.

f. *Exclusion and readmission:*  
See Chapter 2 of Students' Rules and Regulations.

g. *WIL in Operations Management:*  
See Chapter 5 of Students' Rules and Regulations.

<b>CURRICULUM</b>
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**FIRST YEAR**

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
CAP105X	Communication for Academic Purposes	(5)	(10)	
CPL105X	Computer Literacy	(5)	(10)	
FPO105D	Financial Principles in Operations Management I	(5)	(24)	
INI125D	Information Literacy I (block module)	(5)	(2)	
LF1125X	Life Skills I (block module)	(5)	(2)	
OE1105D	Organisational Effectiveness I	(5)	(24)	



OMT105D	Operations Management Techniques I	(5)	(24)
OPM105D	Operations Management I	(5)	(24)
TOTAL CREDITS FOR THE FIRST YEAR:			<b>120</b>

## SECOND YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
MPP205D	Management Principles and Practice I	(5)	(24)	
OEF206D	Organisational Effectiveness II	(6)	(24)	Organisational Effectiveness I
OMT206D	Operations Management Techniques II	(6)	(24)	Operations Management Techniques I
OPM206D	Operations Management II	(6)	(24)	Operations Management I
WPD205D	Workplace Dynamics I	(5)	(24)	
TOTAL CREDITS FOR THE SECOND YEAR:			<b>120</b>	

## THIRD YEAR

CODE	MODULE	NQF-L	CREDIT	PREREQUISITE MODULE(S)
OEF306D	Organisational Effectiveness III	(6)	(30)	Organisational Effectiveness II
OMT306D	Operations Management Techniques III	(6)	(30)	Operations Management Techniques II
OMX326D	WIL in Operations Management (block module)	(6)	(30)	
OPM306D	Operations Management III	(6)	(30)	Operations Management II
TOTAL CREDITS FOR THE THIRD YEAR:			<b>120</b>	
TOTAL CREDITS FOR THE QUALIFICATION:			<b>360</b>	

## MODULE INFORMATION (OVERVIEW OF SYLLABUS)

The syllabus content is subject to change to accommodate industry changes. Please note that a more detailed syllabus is available at the Department or in the study guide that is applicable to a particular module. At time of publication, the syllabus content was defined as follows:

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#### COMMUNICATION FOR ACADEMIC PURPOSES (CAP105X)

1 X 3-HOUR PAPER

*(Module custodian: Department of Applied Languages)*

A workable knowledge of English is an essential skill for any graduate who is required to conduct themselves successfully in a professional working environment. This module will equip students with the competencies required to compose a selection of written texts related to communicating both internally and externally within a professional environment. In addition, the module includes strategies that are essential for the effective communication in various situations, including small groups to avoid unproductive conflict, a multicultural context, etc. (Total notional time: 100 hours)

#### COMPUTER LITERACY (CPL105X)

CONTINUOUS ASSESSMENT

*(Module custodian: End User Computing Unit)*

Provides foundational knowledge in computing fundamentals, essential digital skills in key applications based on MS Office Suite and network basics (i.e. MS Outlook and Internet). Online exams are mapped with End-User Computing: SAQA 49077 (61591) Core Element as well as Internet and Computing Core Certification (IC3). (Total notional time: 100 hours)



**F****FINANCIAL PRINCIPLES IN OPERATIONS MANAGEMENT I (FPO105D)****1 X 3-HOUR PAPER****(Module custodian: Department of Finance and Investment)**

Elements of cost, methods of costing and costing systems, financial aspects of a purchase procedure and stores procedure, basic concepts of cash flow, elements of overhead costs, financial aspects of budgeting, budgetary control, basic concepts of financing projects. Elements of cost, methods of costing and costing systems, financial aspects of a purchase procedure and stores procedure, basic concepts of cash flow, elements of overhead costs, financial aspects of budgeting, budgetary control, basic concepts of financing projects. (Total notional time: 240 hours)

**I****INFORMATION LITERACY I (INI125D)****CONTINUOUS ASSESSMENT****(Module custodian: Directorate of Library and Information Services)**

Introduction of information literacy. Development of a search strategy and application of a search string to search engines and academic databases. Evaluation of information sources. Ethical and legal use of information. (Total notional time: 20 hours)

**L****LIFE SKILLS I (LFI125X)****CONTINUOUS ASSESSMENT****(Module custodian: Directorate of Student Development and Support)**

Personal, socio-emotional and academic skills development for students in higher education. This module includes: 1. Intra- and interpersonal skills (e.g. emotional intelligence, relationships, and conflict management); 2. General study skills (e.g. time management, goal setting, learning styles); 3. Health and wellness (e.g. HIV/AIDS, GBV issues, substance abuse); 4. Student life and adjustment (e.g. identity development, adjusting to a higher education environment); and 5. Financial management. (Total notional time: 20 hours)

**M****MANAGEMENT PRINCIPLES AND PRACTICE I (MPP205D)****1 X 3-HOUR PAPER****(Module custodian: Department of Management and Entrepreneurship)**

Dynamics of the organisation, motivation, management and leadership styles, management by objectives and communication. Decision making and problem solving, creativity, operational research, industrial relations, and the systems approach to organisations. (Total notional time: 240 hours)

**O****OPERATIONS MANAGEMENT I (OPM105D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

Introduction to production management. Production management in perspective. The nature of operating systems and operations management. Product and service design. Facility planning and layout. Capacity management. Introduction to quality. (Total notional time: 240 hours)

**OPERATIONS MANAGEMENT II (OPM206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

Introduction to production management, task and strategic importance of operational management, operational management systems, application of operational management to services, work study and quality, distribution and maintenance. Material requirements planning. Operations scheduling. Quality techniques. Just-in-time production. (Total notional time: 240 hours)

**OPERATIONS MANAGEMENT III (OPM306D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

Project management. Total quality management. Maintenance management. Theory of constraints. (Total notional time: 300 hours)



**OPERATIONS MANAGEMENT TECHNIQUES I (OMT105D)****1 X 3-HOUR PAPER****(Module custodian: Department of Mathematics and Statistics)**

Introduction to statistics and sampling methods, organisation and description of data using tables and graphs, measures of location and dispersion, basic probability, probability distributions (binomial, poisson, normal), introduction to sampling distributions (means and proportions), confidence intervals, hypothesis testing, Chi-squared tests, regression and correlation analysis, time series analysis, index numbers, elementary interest calculations. (Total notional time: 240 hours)

**OPERATIONS MANAGEMENT TECHNIQUES II (OMT206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

Fundamentals of decision theory. Decision trees and utility theory. Marginal analysis and the normal distribution. Game theory. Introduction to linear programming (LP) problems. Formulation of LP problems. Graphic solution of LP problems. Simplex method. Transportation and assignment. Network analysis. Queuing theory. (Total notional time: 240 hours)

**OPERATIONS MANAGEMENT TECHNIQUES III (OMT306D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

Linear programming: advanced applications and sensitivity analysis. Duality and integer programming. Goal programming and dynamic programming. Simulation. Markov analysis, matrix algebra, linear algebra, advanced game theory and advanced queuing theory. The students are also exposed to the use of POM-QM and Excel-solver software in solving various manufacturing and service operation problems in the departmental laboratory. (Total notional time: 300 hours)

**ORGANISATIONAL EFFECTIVENESS I (OEF105D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

An introduction to the concepts of productivity and work study is given as well as why work study is a valuable tool to management. Method study is presented in detail according to the SREDEDIM steps. Various methods of recording information are discussed and practiced via case studies. The questioning technique is used to design the proposed procedure and workplace layout. After the proposed procedure and workplace layout is designed, time studies, as one of the work quantification techniques, are taught to enable the student to measure the time for the proposed procedure. The student is taught to determine a standard time for procedures and processes. This enables the student to determine savings in terms of time and cost. (Total notional time: 240 hours)

**ORGANISATIONAL EFFECTIVENESS II (OEF206D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

Work quantification techniques such as activity sampling, predetermined motion time systems, standard data, and self-recording techniques form part of this module. Productivity improvement, the implementation of Incentive schemes and planning and control is discussed. The student will be able to calculate different performance ratios and the Objective Matrix as a tool to improve performance is highlighted. (Total notional time: 240 hours)

**ORGANISATIONAL EFFECTIVENESS III (OEF306D)****1 X 3-HOUR PAPER****(Module custodian: Department of Operations Management)**

The role and place of management services, management services as a consultancy service, the use of computers in management services, ergonomics, related techniques to management services. Organisation goals and objectives, organisation structure and systems, approach to an organisation's functional analysis, new forms of work organisation and job design, remuneration. (Total notional time: 300 hours)

**W****WIL IN OPERATIONS MANAGEMENT (OMX326D)****WORK-INTEGRATED LEARNING****(Module custodian: Department of Operations Management)**

The purpose of this module is to enable students to be placed in real life manufacturing and service industry to apply theatrical knowledge. The programme include simulated learning and practical work which are performed in manufacturing and services industry, with emphasis of applying Operations Management tools in solving real life problems. (Total notional time: 300 hours)



**WORKPLACE DYNAMICS I (WPD205D)**

**1 X 3-HOUR PAPER**

***(Module custodian: Department of People Management and Development)***

Human and group behaviour, negotiating skills, legal aspects, performance expectations and reward systems in the production environment. (Total notional time: 240 hours)

