

DIPLOMA IN OPERATIONS MANAGEMENT

Qualification code: DPOM19 - NQF Level 6 (360 credits)

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

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.

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

Admission requirement(s):

A Senior Certificate or an equivalent qualification.

Recommended subject(s):

Mathematics.

Selection criteria:

Selection is based on academic assessment and TUT potential assessment. Evaluation of scholastic performance will be based on the student's M-score by using the following method:

| SYMBOL | HG | SG |
|--------|----|----|
| A | 5 | 4 |
| B | 4 | 3 |
| C | 3 | 2 |
| D | 2 | 1 |
| E | 1 | 0 |

- Applicants who score 12 points will be accepted, those who score 10 to 11 points will be invited for an evaluation test, and those who score 9 points and less will not be accepted.
- The Department has the right to invite applicants for an evaluation test and personal interviews with a representative from the Department.

• **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 (excluding Life Orientation).

Assessment procedures:

Applicants with a final APS of 24 and more will be admitted to the programme. Applicants with a score of 20 to 23 will be required to do the TUT potential assessment.



- **APPLICANTS WITH A NATIONAL CERTIFICATE (VOCATIONAL):**

Admission requirement(s):

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

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 **27** (excluding Life Orientation).

- 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.

CURRICULUM

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) | |
| DEF105D | Organisational Effectiveness I | (5) | (24) | |
| OMT105D | Operations Management Techniques I | (5) | (24) | |
| OPM105D | Operations Management I | (5) | (24) | |
| TOTAL CREDITS FOR THE FIRST YEAR: | | | 120 | |

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: | | | 120 | |

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: | | | 120 | |
| TOTAL CREDITS FOR THE QUALIFICATION: | | | 360 | |

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. On 18 October 2019, the syllabus content was defined as follows:

C

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 tuition time: not available)

COMPUTER LITERACY (CPL105X)

CONTINUOUS ASSESSMENT

(Module custodian: End User Computing Unit)

Students have to acquire 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). Students will do online exams that are mapped with SAQA. (Total tuition time: not available)

F

FINANCIAL PRINCIPLES IN OPERATIONS MANAGEMENT I (FPO105D)

1 X 3-HOUR PAPER

(Module custodian: Department of Managerial Accounting and Finance)

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 tuition time: not available)



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 tuition time: not available)

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

Academic, personal and socioemotional skills development for students in higher education. Personal and social dimensions address: effective planning and self-management (goal setting and time management); Adjusting to university life (student life, diversity and change); Intra- and interpersonal skills development (conflict management, self-esteem, relationship management); Effective living (healthy living, HIV education, substance abuse); Academic dimension addresses: academic skills for university (e.g. critical thinking, creativity, managing assignments and assessments). (Total tuition time: not available)

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 tuition time: not available)

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 tuition time: ± 96 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 tuition time: ± 96 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 tuition time: ± 96 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 tuition time: ± 100 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 tuition time: ± 96 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 tuition time: ± 160 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 tuition time: ± 96 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 tuition time: ± 96 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 tuition time: ± 96 hours)

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

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. (No formal tuition)

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 tuition time: ± 96 hours)

