MSc Industrial Engineering & Management - E541

1. Aims and Objectives

This Programme has been specifically designed to equip graduates with problem-solving, technical and managerial skills and knowledge related to Industrial Engineering and Management and to prepare them for professional careers in managing manufacturing, engineering and other technologically oriented services.

Graduates from this Programme should develop**:**

- a thorough understanding of the principles and technology related to Engineering and manufacturing services;
- in-depth knowledge of Industrial Engineering and Industrial Management concepts and techniques and the ability to apply these techniques in designing and managing manufacturing, engineering and other services;
- the ability to conceptualise, analyse, synthesise and implement industrial systems and services; and
- efficiently manage manufacturing, engineering and other technology-oriented systems.

2. General Entry Requirements

Successful completion of an undergraduate degree with

- at least a Second Class or 50%, whichever is applicable or
- a GPA not less than 2.5 out of 4 or equivalent, from a recognised higher education institution.

OR alternative qualifications acceptable to the University of Mauritius.

3. Programme Requirements

(i)   At least a Second Class Honours Degree in Science, Engineering, Agriculture/Agriculture related subjects, Management or an equivalent qualification acceptable to Senate.

(ii)   Preference will be given to candidates with relevant work experience.

4. General and Programme Requirements – Special Cases

The following may be deemed to have satisfied the General and Programme requirements for admission:

(i) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who submit satisfactory evidence of having passed examinations which are deemed by the Senate to be equivalent to any of those listed.

(ii) Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who in the opinion of Senate submit satisfactory evidence of the capacity and attainments requisite to enable them to pursue the programme proposed.

(iii) Applicants who hold a full practising professional qualification obtained by examination.

5. Programme Duration

The Programme will be offered on a part-time basis. The duration of the Graduate Programme should normally not exceed 4 years (8 semesters).

	Normal	**Maximum**
Master's Degree:	4 Semesters	8 Semesters

Postgraduate Diploma:	4 Semesters	8 Semesters
Postgraduate Certificate:	2 Semesters	8 Semesters

6.   **Credits per Semester:** Minimum 3 credits subject to Regulation 5.

7.   **Minimum Credits Required for the Award of**

Master's Degree:	36
Postgraduate Diploma:	24
Postgraduate Certificate:	12

Breakdown as follows:

Core Taught (Minimum)	**Core Modules**	**Project**
Master's Degree	27 credits	9 credits
Postgraduate Diploma	24 credits	
Postgraduate Certificate	12 credits	

8.   **Assessment**

Students are required to register for modules which they intend to follow in a given semester on date(s) specified by the Faculty.

Each module will carry 100 marks and will be assessed as follows (unless otherwise specified): Written examination of 2 hour duration and continuous assessment of 40% of total marks.

Continuous assessment may be based on laboratory work, seminars, and/or assignments and should include at least one class test.

*An overall total of **40%** for combined assessment and written examination components would be required to pass the module, without minimum thresholds within the individual continuous assessment and written examination.*

All modules carry equal weighting.

The Project carries 9 credits.

Submission Deadlines for Dissertation:
As per University policy.

9.   **Plan of Study**

Students are required to submit at the end of Semester 1 a Plan of Study for their whole Programme of Studies, indicating the list of elective modules and in which semester each of them will be taken.

The University reserves the right not to offer a given elective module if the critical number of students is not attained and/or for reasons of resource constraints.

The Faculty reserves the right to change the order in which the modules are offered.

10.   Important Note

The rules as stipulated in this Programme Structure and Outline Syllabus will replace all other rules and regulations found in previous Programme Structures.

11.   List of Modules

Code	Module Name	Hrs/Wk L+P	Credits
CORE MODULES			
MECH 5103	*Business Strategy and Operations*	3+0	3
MECH 6102	Design of Manufacturing Systems	3+0	3
MECH 6103	Industrial Systems Analysis	3+0	3
MECH 5203	Research Methods	3+0	3
MECH 6252	*Quality Engineering*	3+0	3
MGT 5212	Human Resources and Quality Management	3+0	3
PROJECT			
ENGG 6000	Project	-	9
ELECTIVES			
ENGINEERING ELECTIVES			
MECH 6204	Occupational Health & Safety	3+0	3
MECH 6408	Operations Research	3+0	3
MECH 6201	Quality Systems & Auditing	3+0	3
CIVE 6102	Environmental Management 1	3+0	3
MANAGEMENT ELECTIVES			
ACT 5112	Project Economics & Finance	3+0	3
MGT 6002	Corporate Ethics and Governance	3+0	3
ENGG 6410	Asset Management	3+0	3

12. Programme Plan - MSc Industrial Engineering & Management

YEAR 1								

Semester 1

Code	Module Name	Hrs/Wk L+P	Credits
CORE			
MECH 5103	*Business Strategy and Operations*	3+0	3
MGT 5212	Human Resources and Quality Management	3+0	3

Semester 2

Code	Module Name	Hrs/Wk L+P	Credits
CORE			
MECH 6252	Quality Engineering	3+0	3
MECH 5203	Research Methods	3+0	3
MECH 6103	Industrial Systems Analysis	3+0	3

YEAR 2			

Semester 1

Code	Module Name	Hrs/Wk L+P	Credits
CORE			
ENGG 6000	Project	-	-
MECH 6102	Design of Manufacturing Systems	3+0	3
ELECTIVES			
	One Engineering Elective Module	3+0	3

Semester 2

Code	Module Name	Hrs/Wk L+P	Credits
CORE			
ENGG 6000	Project	-	9
ELECTIVES			
	One Management Elective Module	3+0	3
	One Engineering Elective Module	3+0	3

NOTE:

Each module will consist of 45 contact hours (this includes lectures, tutorials, seminars, workshops, external visits, etc.). The total contact (taught) hours of the Programme therefore will be 405 hours. The Project will involve 180 working hours including direct supervision by a member of academic staff and/or an external supervisor.

A minimum of 6 contact hours is scheduled per week (3 hours on a weekday and 3 hours on Saturday). However, candidates are expected to attend daily normally after
4.00 p.m., for intensive modules taught in a period of two weeks by visiting
lecturers.