School of Innovative Technologies and Engineering

Department of Industrial Systems Engineering

Postgraduate Diploma in Information Technology (With Specialisation in Networking)

PROGRAMME DOCUMENT

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A. Programme Information

The postgraduate conversion programme in Information Technology with specialisation in Networking aims to provide a foundation upon which a student can build a successful career. In line with the Government vision, the conversion programme is a possible solution to reduce the unemployment rate as it offers an ideal means to gain a foothold in a fast-expanding ICT industry.

This programme has been developed in consultation with Orange Business Services (OBS), one of the leading ICT organisations in Mauritius. The course content is tailored to the current needs of the ICT industry. The Postgraduate Diploma programme bridges the gap between academic knowledge and professional industry-focussed requirements, thereby increasing the employability of fresh graduates and accelerating their professional performance by building their know-how and delivery within the industry. This programme is geared mainly towards specific industry-used products and other technologies that represent an extended way to deepen the students' technical expertise.

The programme will use the block modules system, that is, a model of teaching students one module at a time over three weeks with an addition of two weeks for completion of assignments. For this programme, students will take two modules at a time in order to fully focus on the content area and gain a complete understanding before moving on to the next two modules. Students will also have the opportunity to complete a mandatory two months work placement to gain hands-on work experience. Students who fail to satisfactorily complete the professional placement will not be eligible for the award of the Postgraduate Diploma in IT with specialisation in Networking.

B. Programme Aims

The aims of the programme are:
(i) to bridge the gap between available skills in the current labour market and industry requirements through an industry-led training programme in Networks
(ii) to reduce the unemployment rate among non-ICT graduates
(iii) to provide candidates with the opportunity to upgrade their skills and knowledge in specific industry focussed technologies.

C. Programme Objectives

After successful completion of the Programme, the graduates should:

- achieve a broad understanding and working knowledge of the network technologies
- intervene professionally at all levels of the hardware development life cycle
- develop and write proper documentation for network-related projects
- acquire appropriate communication skills to handle various client-facing situations
- be equipped with work-ready skills through professional placement at an industry partner.

PART I – Regulations

D. General Entry Requirements

As per UTM's Admission Regulations.

E. Programme Entry Requirements

(i) Any non-IT second-class degree (or international equivalent), acceptable to the University of Technology, Mauritius.

(ii) Candidates shall undergo an aptitude test followed by an interview.

F. PROGRAMME MODE AND DURATION

Full Time: 10 months (inclusive of 2 months compulsory professional placement)

G. TEACHING AND LEARNING STRATEGIES

In general, for this programme, modules will be conducted via face-to-face mode. However, to cater for the impact of the COVID-19 pandemic and other similar situations, and matters connected, consequential, or related, the course may be run either via online or blended learning modes. The student would be expected to perform a substantial amount of self-learning both for the theoretical and practical parts of the modules and adopt a research-oriented approach, as far as possible.

To summarise, teaching and learning activities may include

- Lectures (L), Tutorials (T) and Practical (P) sessions
- Class Tests and Assignments
- Participating in quiz-based exercises
- Professional Work Placement (in-house training and outside the University)
- Workshops / Seminars / Lab Sessions
- Industry visits so that students may observe company cultures and may network with industry professionals
- Structured Discussions & Self Development Study (SD)
- Case Study materials & scenarios centred on real-world network and telecom-related scenarios and problems.

H. STUDENT SUPPORT & GUIDANCE

- Academic tutoring and Counseling: Group tutorials or individual tutorials are arranged for students upon request.
- Supervision of mini-projects and placement.

I. ATTENDANCE REQUIREMENTS

As per UTM's Regulations and Policy.

J.   CREDIT SYSTEM

This programme is aligned with the European Credit and Transfer System (ECTS). The programme promotes a unified procedure for academic recognition of study periods performed. The system introduces standards for assessment and comparison of study levels in various academic institutions and enables to recognition of diplomas at the European job market. ECTS credits are assigned to each module in the programme amounting to a total of 60 credits.

One module is worth 6 credits and will carry 150 hours of learning to comprise 45 hours of delivery which could be any combination of face-to-face, blended, online, seminar, workshop, or joint session. Since the programme is using the block module system and is industry-focused, an addition of 15 hours of face-to-face and discussions sessions with hands-on practical work is required so that the students are equipped with work-ready skills. The remaining 90 hours will cover self-learning, self-study, guest lecture, etc.

K.   STUDENT PROGRESS AND ASSESSMENT

The programme is delivered through lectures and seminars, and practical sessions in computer, network and electronic labs. Self-study or self-development is also important and will include reading, designing and preparing presentations, academic tutoring, writing reports and theses, and investigating problems. The importance of IT/simulation tools in modern network practice is emphasized, and students will make use of the latest software to solve problems and to develop network solutions.

For the award of the degree, all modules must be passed overall with passes in the examinations, coursework, and other forms of assessment. All modules will carry 100 marks and will be assessed as follows (unless otherwise specified):
   (i) Written examinations and/or practical examinations will normally carry a weightage of 50% unless otherwise specified.
   (ii) Continuous assessment will normally carry a weightage of 50% unless otherwise specified.
   (iii) Continuous assessment for the following specific modules (Programming, Linux OS Architecture, Server Management and Professional Communication Skills) shall be 100% of the total marks. Continuous assessment can be based on a combination of assignments, field studies, workshops, and class tests.
   (iv) The overall pass mark for a module is 40%.

Grading

Grade	Marks x (%)
A	$x \geq 70$
B	$60 \leq x < 70$
C	$50 \leq x < 60$
D	$40 \leq x < 50$
F	$x < 40$
A - D	Pass
F	Referred

L. EVALUATION OF PERFORMANCE

The percentage mark contributes a 100 percent weighting towards the Post-Graduate Diploma classification

M. AWARD CLASSIFICATION

Overall weighted mark y (%)	Classification
$70 \leq y$	Postgraduate Diploma with Distinction
$60 \leq y < 70$	Postgraduate Diploma with Merit
$40 \leq y < 60$	Postgraduate Diploma
$y < 40$	No Award

For the award of the Post-Graduate Diploma, a total of 60 credits is required.

Students who fail to qualify for the award of the Postgraduate Diploma may be awarded as follows:
- Post-Graduate Certificate in IT (with specialisation in Networking): a minimum of 30 credits.

N. Programme Organisation & Management

Programme Director/Coordinator: Dr. Vinaye ARMOOGUM

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PART II

O. Postgraduate Diploma in Information Technology (with specialisation in Networking) - Full Time

No	Code	Block Modules	Total Hours L/T/P+SD	Credit	Assessment Method
YEAR 1 SEMESTER 1 (Level M – 30 Credits)
1	MITN5101C	Programming Complexity	60+90	6	100% C
2	MITN5102C	Data Communications and Networking	60+90	6	50% C + 50% E
3	MITN5103C	Linux OS Architecture	60+90	6	100% C
4	MITN5106C	Professional Communication Skills	60+90	6	50% C + 50% E
5	MITN5104C	LAN Switching and Wireless LAN	60+90	6	50% C + 50% E

No	Code	Block Modules	Total Hours L/T/P+SD	Credit	Assessment Method
YEAR 1 SEMESTER 2 (Level M – 30 Credits)
6	MITN5207C	Server Management	60+90	6	100% C
7	MITN5208C	WAN Technologies	60+90	6	50% C + 50% E
8	MITN5312C	Routing Techniques	60+90	6	100% C
9	MITN5313C	Security Networking	60+90	6	50% C + 50% E
		Total Hours	**540 hrs +810 hrs = 1350 Hrs**		
10	MITN5210C	Professional Placement	**2 months**	6	Refer to the table below
			Total Credits	**60 Credits**	

INDUSTRY ATTACHMENT
Code	Activity	Duration	Deliverables
MITN5210C	Professional Placement	Two-month training at an Industry partner, starting after the Year 1 Semester 2 Examinations	Compulsory Submission of a Portfolio upon completion with Viva (6 credits)

C= Continuous Assessment and/or class tests
E= Exams