1 Strategic Business IT (Y4M7)

1.1 Headline information about the module

Module title	Strategic Business IT
Module NFQ level (only if an NFQ level can be demonstrated)	8
Module number/reference	Y4M7
Parent programme(s) the plural arises if there are embedded programmes to be validated.	Level 8 - Bachelor of Science Honours in Computing in Information Technology [Stage 4] Level 7 - Bachelor of Science in Computing in Information Technology [Stage 3 - Embedded] Level 6 - Higher Certificate in Computing in Information Technology [Stage 1/2 – Embedded]
Stage of parent programme	Stage 4 – Award - Bachelor of Science Honours in Computing in Information Technology
Semester (semester1/semester2 if applicable)	Semester 8
Module credit units (FET/HET/ECTS)	ECTS
Module credit number of units	5
List the teaching and learning modes	Full time & Part time
Entry requirements (statement of knowledge, skill and competence)	See Section 4
Pre-requisite module titles	none
Co-requisite module titles	none
Is this a capstone module? (Yes or No)	No
Specification of the qualifications (academic, pedagogical and professional/occupational) and experience required of staff (staff includes workplace personnel who are responsible for learners such as apprentices, trainees and learners in clinical placements)	**Academic and Professional:** MSc required. However NFQ Level 8 in Computer Science, Software Development, Software Engineering or equivalent is acceptable in cases where significant industrial experience is evident. Industry experience will be essential for those who do not have a postgraduate award. **Software Development and Associated Experience:** A minimum of 1 year experience required, 3 years of experience preferred. **Pedagogical:** Teaching experience is desired. Completion of postgraduate CPD/Certificate in Teaching and Learning or similar preferred.
Maximum number of learners per centre (or instance of the module)	100
Duration of the module	1 semester
Average (over the duration of the module) of the contact hours per week (see * below)	2.5 Hours
Module-specific physical resources and support required per centre (or instance of the module)	Physical resource requirements are 1 laptop or PC/workstation per student. In most cases laptops are student-supplied. In the case that students do not have laptops they will be provided by the institution.
Analysis of required learning effort	
***Effort while in contact with staff**	

Lecture / Classroom demonstrations		Mentoring and small-group tutoring		Other (Reflective development, directed reading/group work)		Directed e-learning (hours)	Independent learning (hours)	Other hours (specify)	Work-based learning hours of learning effort	Total effort (hours)
Hours	Minimum ratio teacher/learner	Hours	Minimum ratio teacher/learner	Hours	Minimum ratio teacher/learner					
20	1:16	5	1:5	5	1:16	N/A	95	N/A	N/A	125

Allocation of marks (within the module)

	Continuous assessment	Supervised project	Proctored practical examination	Proctored written examination	Total
Percentage contribution	50%			50%	100%

1.1.1   **Module aims and objectives**
The aim of this module is to provide the learner with understanding of: The macro and micro business environment and the concepts, tools and techniques that facilitate its analysis. The relationship between business and information technology and how information technology can establish and maintain a competitive advantage Differences between proprietary and open source software models and how they can support and affect IT business related solutions Emerging technologies and how business reacts in relation to future strategic planning

1.1.2   **Minimum intended module learning outcomes**

On successful completion of this module the learner will be able to:

- **MLO 1 -** Critically evaluate the relationship between information technology infrastructure And organisational competitive advantage (Linked to PLO 3 (Stage 4 SLO 3))

- **MLO 2 -** Critically analyse and select open source and proprietary software with a view to developing IT solutions for business and business related IT problems (Linked to PLO 3 / PLO 4 (Stage 4 SLO 3 / SLO 4))

- **MLO 3 -** Utilise tools of strategic business analysis to evaluate the current macro and micro business environment with a view to formulating future action plans (Linked to PLO 5 (Stage 4 SLO 5))

- **MLO 4 -** Research emerging technologies and critically evaluate their impact on business and business information systems in general (Linked to PLO 8 (Stage 4 SLO 8))

- **MLO 5 -** Understand the relationship between data gathering and business intelligence and its impact on industry policy (Linked to PLO 5 (Stage 4 SLO 5))

1.1.3   **Rationale for inclusion of the module in the programme and its contribution to the overall IPLOs**

This module deals with the application of software in a business context; this very application leads to new software development. This module allows a learner to appreciate the effects of previously developed software on business while giving insight into the need for continuing cross domain software development.

1.1.4   **Information provided to learners about the module**

This module specification is replicated in the programme handbook and made available on Moodle.
This information is further supplemented by information given to learners at induction as an overview of the module.

1.1.5	**Module content, organisation and structure**

The following indicative syllabus contains a learner reflective component as outlined in the teaching and learning strategy for this programme.

Content:
- **IT and Competitive Advantage**
    - The role of IT in business
    - IT and maintaining a successful competitive advantage
    - Open source software and its role in facilitating successful business IT solutions

- **Strategic Analysis**
    - Theories, concepts and tools of strategic analysis
    - Strategy formulation, monitoring and review
    - Macro and Micro business environments

- **Emerging Technologies**
    - Mobile integration
    - Cloud solutions and options
    - Strategic Business Information Systems
    - Business intelligence and predictive analysis
    - Impact of Big Data on business decision making

- **Structure of the Business Enterprise**
    - Different forms of business enterprise
    - Globalisation – Opportunities and Challenges content

- **Software Development Frameworks & Processes**
    - Software Development Life Cycle (SDLC)
    - Agile
    - Scrum
    - DevOps (Development Operations)

1.1.6	**Module teaching and learning (including formative assessment) strategy**

To provide the learner with a strong foundation in the core topics covered during the lectures, practical sessions will reinforce lecture content and provide supervised time to complete some assessment tasks. Sessions will be interactive, with instructor-led example exercises highlighting important topics discussed in lectures.

To provide formative assessment for this module the learner will:

• Be provided an opportunity at the beginning of each week to engage in group discussion on the material covered the previous week, thereby allowing reflection and ensuring their competency

• Student suggested tasks will be completed in a peer learning environment to encourage collaboration and allow learners to self-evaluate their current knowledge while gaining new knowledge and insights. (this strategy links directly to PLO 7, PLO 8)

• Additional discussions will take place covering any lab-based exercises which have been provided to the learner.

1.1.7	Work-based learning and practice-placement

Not Applicable

1.1.8	E-learning

This module is not for delivery via e-learning however our Virtual Learning Environment, Moodle, will be utilised to provide a single point of access for all the lecture material covered during this course. All CA work which is completed by the learner will be uploaded through dedicated Assignment uploading facilities on each Module page. This provides the learner with off-campus access to the course material

1.1.9	Module physical resource requirements

Physical resource requirements are 1 laptop or PC/workstation per student. In most cases laptops are student-supplied. In the case that students do not have laptops they will be provided by the institution.

1.1.10	Reading lists and other information resources

Books:
Crafting and Executing Strategy: Concepts and Readings
 Arthur B. Thompson |2015 | McGraw Hill

Data smart: Using Data Science to Transform Information into Insight
John Foreman |2014 |Wiley

Exploring Strategy
Gerry Johnson |2014| Pearson

Leading the Transformation: Applying Agile and DevOp Principles at Scale
Gary Gruver & Tommy Mouser | 2015 | Clearer Phase

Learning Agile: Understanding Scrum, XP, Lean and Kanban
 Stellman, A. Greene, J. | 2014 | O'Reilly Media

Managing and Using Information Systems: A Strategic Approach
Kerri E. Pearlson | 6th Edition | 2016 | Pearson

The New IT: How Technology Leaders are Enabling Business Strategy in the Digital Age
Jill Dyche | 2015 | Mcgraw Hill Education

1.1.11	Specifications for module staffing requirements

Academic and Professional: MSc required. However NFQ Level 8 in Computer Science, Software Development, Software Engineering or equivalent is acceptable in cases where significant industrial experience is evident. Industry experience will be essential for those who do not have a postgraduate award.
Software Development and Associated Experience: A minimum of 1 year experience required, 3 years of experience preferred.
Pedagogical: Teaching experience is desired. Completion of postgraduate CPD/Certificate in Teaching and Learning or similar preferred.

1.1.12 Module summative assessment strategy

Mapping of summative and formative assessment: MIMLO to MIPLO

A ✓ indicates that the PLO has been formatively assessed as per the teaching and learning strategy for the programme

	Module Learning Outcomes					Programme Learning Outcomes							
	1	2	3	4	5	1	2	3	4	5	6	7	8
Assessment	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓