Module 6: Digital Transformation

Module title			
Digital Transformation			
Module NFQ level	**Module number / reference**	**ECTS Value**	**Duration**
9	MSC-PBM-DT	**5**	**12 Weeks**
Parent programme(s)		**Stage of parent programme**	**Semester No.**
Master of Science in Pharmaceutical Business Management		1	1 or 2
Postgraduate Diploma in Science in Pharmaceutical Business Management		1	1 or 2
Certificate in Pharmaceutical Business Management		1	1 or 2
Teaching and Learning modes	**Proportion** (% of Total Directed Learning)		
Classroom / Face to Face	**80%**		
Workplace			
Online			
Other (Identify)	**Blended: 20%**		
Entry requirements (statement of knowledge, skill and competence)			
Learners should normally hold an honours (NFQ Level 8) degree in a cognate or non-cognate discipline or equivalent qualification, from an approved tertiary/or professional institution.			
Maximum number of learners per instance of the module	**100**		
Average (over the duration of the module) of the contact hours per week	**3**		
Pre-requisite module title(s) (if any)			
Co-requisite module title(s) (if any)	**N/A**		
Is this a capstone module? (Yes or No)	**No**		
Module-specific physical resources and support required per centre (or instance of the module)			
Lecture room with internet access, audio-visual equipment and white board. Moodle Area.			
Specification of the qualifications (academic, pedagogical and professional/occupational) and experience required of staff working in this module.			
Role e.g. Tutor, Mentor etc	**Qualifications & experience required:**		**# of Staff with this profile (WTEs)**
Lecturer	Lecturing staff are required to hold at least a master's degree in Business, Engineering, Management or Leadership, or an equivalent professional qualification. Industry experience is beneficial but not a requirement. Ideally, they would also hold a third level teaching qualification (e.g. the Griffith College Certificate in Education, Learning and Development).		0.25

Analysis of required learning effort		
*Effort while in contact with staff	**Minimum ratio teacher / learner**	**Hours**
Classroom and demonstrations	1:100	18
Mentoring and small-group teaching	1:20	18
Other (specify)		
Independent Learning		
Directed e-learning (hours)		-
Independent Learning (hours)		89
Other hours (specify)		-
Work-based learning hours of learning effort		-
Total Effort (hours)		125

Allocation of Marks					
	Continuous Assessment	**Supervised Project**	**Proctored Practical Exam.**	**Proctored Written Exam**	**Total**
Percentage Contribution	100%	-	-	-	**100%**

1.1.1 Module aims and objectives

This module focuses upon the role of digital transformation in organisations, what it involves, where it can be used, the benefits and risks of adopting it, and trends towards it within relevant industries. Furthermore, it explores how digital transformation can be embedded in organisations, in manufacturing, in business processes, sales and marketing, and business models; and explores how it can be embedded in Business Strategy and translated into Business Planning. Later it looks at identifying digital transformation opportunities in organisations and overall approaches to planning and implementing these. This module aims to prepare learners to successfully drive digital transformation in organisations.

Theories and models of digital transformation, in addition to approaches to embed digital transformation across business areas will be examined. The next focus of the module is upon identifying and assessing digital transformation opportunities, and upon the application of theory and approaches to real world problems. This Module has been designed to be deliverable on campus or off campus using in-person or online sessions.

1.1.2 Minimum intended module learning outcomes

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

MIMLO 6.1 Analyse digital transformation in organisations, its potentiality, drivers, and processes.

MIMLO 6.2 Critically evaluate the relationships between strategy development, operational planning and digital transformation.

MIMLO 6.3 Critically explore the significance of the role played by digital transformation in organisations, understand the key phases of digital transformation in organisations, and evaluate the opportunities and risks posed by these.

MIMLO 6.4 Analyse scenarios to identify and evaluate areas for digital transformation in organisations.

MIMLO 6.5 Explore opportunities for digital transformation across the value chain of relevant industries, including aspects such as management, product or service development, marketing channels, manufacturing, supply chain, human resources, training.

MIMLO 6.6 Identify and develop opportunities for digital transformation in organisations, producing reports and materials to support these.

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

Digital transformation is a key driver of change and profitability across organisations and industries. It can potentially drive change in every and support area in an organisation. For example, within the pharmaceutical industry digital transformation involves harnessing state of the art digital technologies to improve processes such as drug development, research, clinical trials, quality, manufacturing, distribution, supply chain, energy management, customer relationship management, sales and marketing, and business decision making. The development of the global and digital economies has led to a rapid integration of markets and indeed of consumer behaviour, and the speed of the digital transformation across industries is ever increasing as a result. Organisations must adapt to respond to this and the increased competition it supports. However, despite its huge potentiality, digital transformation also brings risks and challenges, including the risk of moving too quickly or in the wrong direction.

This module has been designed to help learners develop the skills to critical assess and evaluate opportunities for digital transformation in organisations, and to develop response plans based upon the best available evidence to facilitate organisations in truly benefiting from the potential for digital transformation.

In this context, this module supports the achievement of the following MIPLOs (per each award):

Programme Title	MIPLOs achieved
MSc in Pharmaceutical Business Management	(i), (ii), (iv), (v), (vi), (viii), (ix), (xiv)
PgDip in Science in Pharmaceutical Business Management	(i) to (v), (vii), viii) and (xi)
Certificate in Pharmaceutical Business Management	(i) to (iv), (vi), (vii), (x)

1.1.4 Information provided to learners about the module

This module aims to introduce learners to the general subject of digital transformation and to improve learner knowledge of this subject. It examines concepts, theories, and practices around digital transformation at both strategic and process levels in organisations, and the analysis of existing practices to assess and evaluate opportunities for change in real 'life' contexts which are relevant to learners now and in their future working lives. The module draws on material from a variety of sources - academic works, case studies, documentaries, etc., to achieve a multi-layered scaffolded approach to developing an understanding of digital transformation in modern organisations.

The module is structured to help learners learn more about the topic through blended learning, including attending lectures, reading case studies and notes, completing short activities, watching video clips, and assessment activities. Throughout, learners will consider different aspects of digital transformation, such as industry trends, decision making, identifying opportunities across the value chain, assessing risk, and considering how these apply in real organisations.

The module is assessed via 100% continuous assessment, and will be assessed through 1 assignment. This will involve an individual project based on a case study, where the learner will produce and submit a written report.

The assignment should include a value chain style analysis of an organisation (or part thereof depending on the overall size and fit), followed by analysis, evaluation and planning for digital transformation in key areas, and developing a digital transformation strategy to support the highest priority areas identified.

1.1.5   Module content, organisation and structure

Module Curriculum – Indicative Content

Introduction to Digital Transformation
- Understanding the role of Digital Transformation in Organisation
- Understanding the benefits of Digital Transformation
- Understanding the risks of Digital Transformation
- Understanding what Digital Transformation is not

Understanding Digital Transformation
- Understanding the mechanisms through which Digital Transformation can drive change
- Understanding the mechanisms through which Digital Transformation can drive profitability
- Understanding the different functional areas where Digital Transformation may be beneficial
- Understanding the different support activities where Digital Transformation projects may be beneficial

Technologies & Trends for Transformation
- Exploring the range of technologies available
- Exploring the types of technologies used in different areas of the value chain
- Exploring the trends of digital transformation in industry
- Artificial Intelligence
- Cloud Computing
- Specialisations
- Manufacturing
- Research and Development
- Customer Relationship Management
- Sales and Marketing
- Business Support Systems
- Supply Chains
- Off the shelf vs custom solutions

Organisational Analysis
- Understanding value chain analysis
- PESTEL
- Porters Diamond
- Porters 5 forces
- Activity and Process Mapping
- Using Value Chain Analysis or Alternative Approaches to analyse organisations to identify areas for digital transformation
- Objective Evaluation of Areas for Change (Evaluation and Prioritisation, Matrices)

Embracing Digital Transformation
- Digital Transformation of Processes
- Digital Transformation of Business Planning
- Digital Transformation of Strategy
- Developing Solutions/Change Projects (e.g. Creative Problem-Solving Approaches)
- Evaluating Potential Solutions/Change Projects (e.g., suitability, acceptability, feasibility, value add)

Strategic Management
- What is Strategy?
- Exploring the difference between Strategy and strategic decision making, and general management and operation planning
- Translating Mission, Vision and Strategy
- Understanding sources of competitive advantage
- Evaluation Performance & Critical Success Factors
- Understanding Organisational Competencies
- Macro, Meso and Micro perspectives (Strategy, planning, process)
- Decision making (Strategy led, performance led etc)
- Strategy Development
- Approaches to Develop a Digital Transformation Strategy.

Timetabling, Learner Effort and Credit
The contact hours, assessment and total learner effort are detailed above, and are reflective of, and appropriate for, the module ECTS.

The lectures in the first week will introduce the module to learners and cover an introduction and overview of the topic and the importance it plays within change in organisations. The lectures and tutorials of the following weeks will then turn to focus on the core content, and preparing for the assignment. The indicative teaching plan is below.

Week 1	Introduction to Digital Transformation
Weeks 2 & 3	Understanding Digital Transformation
Weeks 4 & 5	Technology and Trends for Transformation
Weeks 6 & 7	Technology and Trends for Transformation Organisational Analysis
Weeks 8 & 9	Organisational Analysis Embracing Digital Transformation
Week 10	Embracing Digital Transformation Strategic Management
Week 11	Strategic Management
Week 12	Technology and Trends for Transformation Submit Assignment

1.1.6   Module teaching and learning (including formative assessment) strategy
Along with a clear statement on the relevant learning objectives and expectations at the beginning of each topic, learners are directed to the range of relevant materials to support the deepening of their learning experience and knowledge of the topic. The module is delivered through a mixture of lectures, workshops, case studies, group discussions (lecturer-led inside class and independently by learner groups outside class), online readings and activities, group-research and self-directed reflective development.

Lectures cover the fundamentals of each topic and include contemporary perspectives on different aspects of digital transformation with a view to encouraging a critical and constructive approach to existing and new ideas. In-class team work, group, and whole-class activities and discussions reinforce key learning points. In-class and take-home activities, coupled with personal research, help learners to 'build' the presentation required for their continuous assessment assignment.

1.1.7 Work-based learning and practice-placement

There is no work-based learning or practical placement in the module.

1.1.8 E-learning

Griffith College uses Moodle, a virtual learning environment, to support its delivery of e-learning activities in the form of peer-to-peer support based around activities where learners give and receive feedback, forums where learners must contribute, formative quizzes and video links.

1.1.9 Module physical resource requirements

There are no special requirements for this module beyond a standard classroom set up. All learners have access to an extensive range of "actual" and "remote access" library resources. The library monitors and updates its resources on an ongoing basis, in line with the College's Library Acquisition Policy.

1.1.10 Reading lists and other information resources

Core Reference Materials

Brown, A.W. (2019) *Delivering Digital Transformation. A Manager's Guide to the Digital Revolution*. Oldenbourg: De Gruyter.

Secondary reading and eResources

Ansoff, H.I., Kipley, D., Lewis, A.O., Helm-Stevens, R. and Ansoff, R. (2018) *Implanting Strategic Management*. USA: Palgrave Macmillan.

Manyika, J., Chui, M., Bughin, J., Dobbs, R., Bisson, P. and Marrs, A. (2016) Disruptive Technologies: Advances That Will Transform Life, Business, and the Global Economy. *McKinsey Global Institute*. San Francisco, CA, USA, 2013.

Palmer, I., Dunford, R. and Buchanan, D.A. (2021) *Managing Organizational Change: A Multiple Perspectives Approach.* 4th Ed. New York: McGraw-Hill Education.

Schallmo, D., Williams, C.A. and Boardman, L. (2020) 'Digital transformation of business models—best practice, enablers, and roadmap'. *Digital Disruptive Innovation* 21(8), 119-138. DOI: 10.1142/S136391961740014X

Schwab, K. (2016) *The Fourth Industrial Revolution*. World Economic Forum: Geneva, Switzerland.

Todnem By, R. (2005) 'Organisational change management: A critical review' *Journal of Change Management,* 5(4), 369–380. doi:10.1080/14697010500359250

1.1.11 Specifications for module staffing requirements

Lecturer and other personnel should hold a Masters Level (Level 9) qualification in Business, Engineering, Management or Leadership. Industry experience is beneficial but not a requirement.

Ideally, they would also hold a third level teaching qualification (e.g. the Griffith College Certificate in Education, Learning and Development).

1.1.12 Module summative assessment strategy

The module is assessed via 100% continuous assessment, and will be assessed through 1 assignment. This will involve an individual project based on a case study, where the learner will produce and submit a written report.

The assignment should include a value chain style analysis of an organisation (or part thereof depending on the overall size), followed by analysis, evaluation and planning for digital transformation in key areas, and developing a digital transformation strategy to support selected projects.

It should be noted that learners are not expected to develop detailed implementation plans in this assignment, the focus is on strategic planning, the assessment and development of strategy to support digital transformation. Learners should assess the case study organisation and develop the digital transformation strategy to the point where the projects could be handed over to a project manager to operationally plan and implement.

An example of what the assignment brief might look like follows, but this can be adapted as needed.

- Assess the value chain of an organisation to identify potential areas for digital transformation
- Evaluate, and objectively prioritise, the identified areas for transformation.
- Analyse the two highest priority areas for digital transformation to identify a range of suitable projects to support the digital transformation of each area.
- Evaluate, and objectively prioritise, the projects to identify the most suitable project for each of the 2 key areas.
- Develop a digital transformation strategy to support the implementation of the two digital transformation solutions.

No	Weighting	Type	Description	Learning outcomes assessed
1	100%	Written report	Learners will complete a detailed organisational digital transformation assessment and develop a digital transformation to support digital transformation in a case study organisation.	All MIMLOs

Reassessment/Repeat assessment strategy: Griffith College regulations state that learners must pass all component elements of the module to be deemed to have passed the module.

- In the event of a learner failing components of / this module, they will be required to submit a new individual repeat assignment which will be made available on Moodle to learners, and which must be submitted as per faculty instructions.
- In the event of a learner failing the group assessment element of this module, a new individual repeat assignment will be made available on Moodle to learners which must be submitted as per faculty instructions.

In the event of the learner failing the exam, learners will take the re-sit exam at the next available sitting, details of which will be made available to learners via Moodle.