

Course Outline (Higher Education)

Institute / School:	Institute of Innovation, Science & Sustainability
Course Title:	UNDERSTANDING THE DIGITAL REVOLUTION (MASTERS)
Course ID:	ITECH5100
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	(GPSIT1100 and ITECH1100)
ASCED:	029999

Description of the Course:

This course provides students with a broad foundation in Information Technology (IT), and establishes its context in society currently, historically and into the future. Students will develop an understanding of IT as a process that collects, stores, transports and transforms data to provide information and streamline practices. The course will cover the lifecycle of data and introduces students to topics such as hardware, software, operating systems, input and output, data storage and manipulation, coding, networking and security, and privacy.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Does Recognition of Prior Learning apply to this course? No

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory	■	■	■	■	✓	■

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Learning Outcomes:

Knowledge:

- K1.** Relate how IT and the digital revolution have progressed over time;
- K2.** State the uses of emerging technologies within key industry contexts;
- K3.** List major information systems that support business organisations;
- K4.** Relate the importance of data and knowledge management;
- K5.** Describe basic hardware and network components;
- K6.** Explain the concepts of software systems and software development within key industries;
- K7.** Recognize the impact of IT on broader societies;
- K8.** Outline the basic principles of programming.

Skills:

- S1.** Write basic programming logic;
- S2.** Review a range of information system applications;
- S3.** Interpret and construct representations of business data flow and processes;
- S4.** State and reflect on legal and ethical concerns relevant to IT;
- S5.** Relate IT related security and privacy issues;
- S6.** Show an understanding of network types and applications.

Application of knowledge and skills:

- A1.** Prepare a basic solution to a business problem;
- A2.** Select appropriate IT solutions for business functions;
- A3.** Apply business information software for data visualization and analysis purposes.

Course Content:

Topics may include:

- Fundamental IT Concepts and Definitions;
- IT Past, Present & Future;
- IT Architecture, Infrastructure, and Systems;
- Hardware, Software and Networks;
- IT in context and Industry use;
- Data Management, Artificial Intelligence and Business Intelligence;
- Programming Structures, Constructs, Methodologies, and Tools;
- Software Development
- Ethical, Legal and Green Issues for IT;
- Social Media;
- Networks, Security & Privacy;
- Project, Product and Service Management

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni course, and all must be directly assessed in each program.*

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 1 Interpersonal	Students at this level will demonstrate an advanced ability in a range of contexts to effectively communicate, interact and work with others both individually and in groups. Students will be required to display high level skills in-person and/or online in: <ul style="list-style-type: none"> • Using and demonstrating a high level of verbal and non-verbal communication • Demonstrating a mastery of listening for meaning and influencing via active listening • Demonstrating and showing empathy for others • High order skills in negotiating and conflict resolution skills • Demonstrating mastery of working respectfully in cross-cultural and diverse teams. 	Not applicable	Not applicable
FEDTASK 2 Leadership	Students at this level will demonstrate a mastery in professional skills and behaviours in leading others. <ul style="list-style-type: none"> • Creating and sustaining a collegial environment • Demonstrating a high level of self-awareness and the ability to self-reflect and justify decisions • Inspiring and initiating opportunities to lead others • Making informed professional decisions • Demonstrating initiative in new professional situations 	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students at this level will demonstrate high level skills in working in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: <ul style="list-style-type: none"> • Reflecting critically to generate and consider complex ideas and concepts at an abstract level • Analysing complex and abstract ideas, concepts and information • Communicate alternative perspectives to justify complex ideas • Demonstrate a mastery of challenging conventional thinking to clarify complex concepts • Forming creative solutions in problem solving to new situations for further learning 	K1,K4	A2

FEDTASK attribute and descriptor		Development and acquisition of FEDTASKS in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 4 Digital Literacy	Students at this level will demonstrate the ability to work competently across a wide range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: <ul style="list-style-type: none"> Mastering, exploring, evaluating, managing, curating, organising and sharing digital information professionally Collating, managing complex data, accessing and using digital data securely Receiving and responding professionally to messages in a range of professional digital media Contributing competently and professionally to digital teams and working groups Participating at a high level in digital learning opportunities 	K5, S1, S6	AT2
FEDTASK 5 sustainable and Ethical Mindset	Students at this level will demonstrate a mastery of considering and assessing the consequences and impact of ideas and actions in enacting professional ethical and sustainable decisions. Students will be required to display skills in: <ul style="list-style-type: none"> Demonstrate informed judgment making that considers the impact of devising complex solutions in ambiguous global economic environmental and societal contexts Professionally committing to the promulgation of social responsibility Demonstrate the ability to evaluate ethical, socially responsible and/or sustainable challenges and generating and articulating responses Communicating lifelong, life-wide and life-deep learning to be open to the diverse professional others Generating, leading and implementing required actions to foster sustainability in their professional and personal life. 	S4	A2

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
A2, S1, S2, S3, S4, S5, S6, K1, K2, K3, K4, K5, K6, K7, K8	Tests and examinations covering a range of taught IT-related topics.	Tests & examinations	30% - 50%
A1, A2, A3, S1, S2, S3, K2, K6, K8	Practical demonstrations of basic IT skills. Presentations and/or reports covering a range of taught IT-related topics and how they can disrupt industries and societies	Assignments & presentations	50% - 70%

Alignment to the Minimum Co-Operative Standards (MiCS)

The Minimum Co-Operative Standards (MiCS) are an integral part of the Co-Operative University Model. Seven criteria inform the MiCS alignment at a program level. Although courses must undertake MiCS mapping, there is NO expectation that courses will meet all seven criteria. The criteria are as follows:

1. Co-design with industry and students
2. Co-develop with industry and students
3. Co-deliver with industry
4. FedTASK alignment
5. Workplace learning and career preparation
6. Authentic assessment

7. Industry-link/Industry facing experience

MiCS program level reporting highlights how each program embraces the principals and practices associated with the Co-Operative Model. Evidence of program alignment with the MiCS, can be captured in the Program Modification Form.

MICS Mapping has been undertaken for this course

No

Date:

mmm dd, yyyy

Adopted Reference Style:

APA

Refer to the [library website](#) for more informationFed Cite - [referencing tool](#)