



Course Outline (Higher Education)

Institute / School:	Institute of Innovation, Science & Sustainability
Course Title:	UNDERSTANDING THE DIGITAL REVOLUTION
Course ID:	ITECH1100
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	Nil
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. This course also acts as an introduction to the Business Systems stream, and will therefore investigate many of the above concepts through a lens of how such systems have revolutionised a range of businesses and industries.

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

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	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intermediate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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 to be 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 will demonstrate the ability to effectively communicate, interact and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: <ul style="list-style-type: none"> • Using effective verbal and non-verbal communication • Listening for meaning and influencing via active listening • Showing empathy for others • Negotiating and demonstrating conflict resolution skills • Working respectfully in cross-cultural and diverse teams. 	Not applicable	Not applicable
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: <ul style="list-style-type: none"> • Creating a collegial environment • Showing self-awareness and the ability to self-reflect • Inspiring and convincing others • Making informed decisions • Displaying initiative 	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work 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 • Evaluating ideas, concepts and information • Considering alternative perspectives to refine ideas • Challenging conventional thinking to clarify concepts • Forming creative solutions in problem solving 	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 will demonstrate the ability to work fluently across a 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"> • Finding, evaluating, managing, curating, organising and sharing digital information • Collating, managing, accessing and using digital data securely • Receiving and responding to messages in a range of digital media • Contributing actively to digital teams and working groups • Participating in and benefiting from digital learning opportunities 	K5, S1, S6	AT2
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: <ul style="list-style-type: none"> • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Embracing lifelong, life-wide and life-deep learning to be open to diverse others • 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%

Adopted Reference Style:

APA

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)