Course Outline (Higher Education)

School: School of Engineering, Information Technology and Physical Sciences

Course Title: UNDERSTANDING THE DIGITAL REVOLUTION

Course ID: HENAI1100

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 both 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			✔			
Intermediate						
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 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, Analytics, 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

Values:

V1. Appreciate the importance of Information Technology to a range of industries;
V2. Understand the legal and ethical issues underpinning the responsible implementation of Information Technology solutions.

Graduate Attributes

The Federation University FedUni graduate attributes (GA) are entrenched in the Higher Education Graduate Attributes Policy (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K1, K2, S3, A1, A2, A3	AT2
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	K7, S3, A1	AT2
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	K1, K2, K3, K4, S4, S5, A2	AT1, AT2
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	K1, S2, K4, K5, K6, K8, S4, S5	AT2
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	S4, S5	AT2

Learning Task and Assessment:

Learning Outcomes Assessed	Learning 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 topic	Tests & examinations	40% - 60%
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	Assignments & presentations	40% - 60%

Adopted Reference Style:

APA

Refer to the library website for more information

Fed Cite - referencing tool