Unit Title	Mobile and Web Development (blended)
FHEQ Level	Level 6
Unit Code	DGM20313
Credit Value	30
Unit Type	Subject

Learning Hours

Staff – Student Contact Hours		Independent Study Hours	
Classes	30	Independent study	210
Supervised access to Ravensbourne resources	30	Preparation for assessment	30
Total		300	

Unit Description

This unit aims to give learners the opportunity to develop skills, knowledge and understanding needed to design effective websites and mobile applications. Data driven websites are commonly used in the industry. The vast amounts of data generated through various sources is also analysed for strategic decision making. Due to continuous nature of economic and social cycles around the world, it is imperative that data generated is reliable, secure, efficient and able to cope with changing environment.

Because of rapid developments in communication, particularly the internet, generated data has become complex in nature and larger in size as well. This unit will help learners understand the dynamics of various types of database systems including relational and non-relational databases, big data, data warehousing and data lakes.

The Five Principles underpin the Mindsets and Skillsets Manifesto and are the foundation upon which all course curriculum frameworks and unit specifications are based. The relevant Principles as stated below have been mapped against the Learning Outcomes relevant to each course unit and at each level (see Programme Specifications for full description of the Five Principles):

1. Cultivate / Where the individual thrives.
2. Collaborate / Where disciplines evolve.
3. Integrate / Where education engages industry.
4. Advocate / Where purpose meets practice.
5. Originate / creativity meets technology.

Unit Indicative Content

This unit will provide good understanding of website and mobile application development tools and techniques.

- o Web design and development environment
- o Programming languages used for web development
- o Open source and vendor specific databases
- o Internet and Intranet hosting and available server technologies
- o Front end and back end web technologies
- o Web development standards
- o Search Optimisation
- o Client-side and Server-side security
- o Safe communication, encryption
- o HTTP, HTTPS, SSL etc.
- o HTML & CSS
- o Big Data
- o Web development tool and techniques
- o Rapid Development Techniques
- o Mobile App tools and techniques

Unit Aims

1. To demonstrate knowledge of web design and mobile application development and choices between open source and vendor specific systems.

2. To be able to select suitable development environment for an application.

3. To apply knowledge for development of a website or mobile application.

4. To analyse and design a working solution for a website or mobile application.

5. To evaluate the risks and suggest actions for web sites and mobile app safety.

Unit Learning Outcomes

LO 1 Research/Inspiration Demonstrate your capacity for information gathering techniques using a wide range of sources, providing visual, contextual and industry case-study research as appropriate.

Related Principle: ORIGINATE

LO 3 Development/Prototyping
Demonstrate a range of tests and solutions, informed by knowledge of the principles of the creative process.

Related Principle: INTEGRATE

LO 4 (Pre) Production
Identify, select and apply an appropriate selection of processes, materials and methods that inform creative and academic practice.

Related Principle: COLLABORATE

LO 6 Critical and creative mindsets Demonstrate enquiry into what makes good practice - both creatively and academically
Related Principle: ORIGINATE

Learning and Teaching Methods

This unit will be delivered using a combination of:

- Lectures / Seminars
- Online activities
- Self-directed independent study
- Peer learning, group discussion, guest speakers

Assessment methods and tasks

Assessment tasks	Weighting (%) *(one grade or multi-grade unit)*
Written portfolio	30%
Individual artefact presentation	70%

Indicative Assessment Criteria

Research, develop and evaluate a website or Mobile Application using suitable tools and techniques for a specific idea/purpose (LO1, LO4)

Demonstrate a good understanding of development standards (LO4)

Evaluate your security techniques, their strength and weaknesses.

Justify your choice of development tool and compare / contrast with other available options (LO 6)

Demonstrate UX/UI skills and aesthetics in design of interface with a specific market segment in mind (LO6).

Discuss various deployment techniques of your mobile/web application and evaluate potential response (LO1, LO6)

Essential Reading list

Kyrnin, Jennifer, and Julie Meloni. Sams Teach Yourself HTML, CSS, and Javascript. Pearson Education, Inc., 2019.

Ullman, Larry E. PHP and MySQL for Dynamic Web Sites: Visual QuickPro Guide. Peachpit Press, 2018.

Burton, Michael. "Android Application Development for Dummies." Amazon, Wiley, 2015,

Recommended Reading List

Duckett, Jon. HTML & CSS: Design and Build Web Sites. Wiley, 2018.