Unit Title	Code, Figures, Visuals
FHEQ Level	Level 4
Unit Code	USE18103
Credit Value	15
Unit Type	Subject

Learning Hours

Staff – Student Contact Hours		Independent Study Hours	
Classes	45	Independent Study	60
Supervised access to resources		Preparation for Assessment	15
		Unsupervised Access to Resources	30
Total			**150**

Unit Description

This unit provides basic skills for two of the main study areas of the course: coding and design.

Coding is becoming an indispensable skill in many aspects of design, from architecture to fashion, and code-driven design is common in the development and testing of user interfaces. Literacy in code is useful to unlock the scripting features of conventional design software, but also leads to a new kind of creative practice, where designs and concepts are explored and generated in computer language rather than using conventional drawing and modelling techniques. (Collaborate Principle)

In this unit you will be introduced to the hybrid skill set of basic visual layout and software development techniques that form the basis of a modern interactive design process. (Integrate Principle)

Code is introduced as a new medium for design expression. (Cultivate Principle)

You are taught the basic principles of digital asset management. (Collaborate Principle)

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

- Using computer editors and IDEs to develop software programs
- Mathematics and logic for programming and computer graphics

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- Independent working and task/project management
- Using graphic and visual design tools, including both software and pen and paper

Unit Aims

Become familiar with the basics of coding in text-based programming languages.

Understand basic mathematics and logic for computing.

Understand basic digital project and asset management methods.

Gain a basic working knowledge of media editing tools.

Unit Learning Outcomes

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 7 Employability

Evidence nurturing professional transferable and employability skills, including the ability to manage time and work to clear briefs and deadlines, respond to set goals, and communicate effectively.

Related Principle: CULTIVATE

Learning and Teaching Methods

Briefings

Lectures

Project work

Seminars

Workshops

Group work

Online activity

Individual Presentations and critiques

Self-directed independent study

Assessment methods and tasks

More detailed assessment tasks will be specified in the brief.

Assessment tasks	Weighting (%) *(one grade or multi-grade unit)*
Portfolio of work with supporting physical and digital material detailing project research, process and development.	Unit assessed holistically (100% of unit)

Indicative Assessment Criteria

Assessment criteria are the basis on which the judgment of the adequacy of the work is made. A more detailed assessment criteria will be specified in the brief.

- Demonstrate basic fluency in developing creative solutions by coding in text-based programming languages (L03, L04)
- Provide evidence of understanding of basic mathematics and logic as they apply to computing (L04)
- Demonstrate a grasp of basic asset management methods for digital projects (L04, L07)
- Provide evidence of fluency using media editing tools (L04, L07)

Essential Reading list

1. Tate, B. (2010) Seven Languages In Seven Weeks. Raleigh, N.C.: Pragmatic Bookshelf.
2. Makinson, D. (2012) Sets, Logic And Maths For Computing. London: Springer.
3. Shiffman, D. (2008) Learning Processing. Amsterdam: Morgan Kaufmann/Elsevier.
4. Reas, C., and Fry, B. (2015) Getting Started With Processing. London: O'Reilly.
5. Reas, C., and Fry, B. (2015) Processing: A Programming Handbook for Visual Designers and Artists.