

|   |  |
|---|--|
| <b>Module Title:</b>  | UI/UX Design and Development   |
| <b>Language of Instruction:</b>   | English  |
| <b>Credits:</b>   | 5  |
| <b>NFQ Level:</b>   | 8  |
| <b>Module Delivered In</b>  | <a href="#">4 programme(s)</a>   |
| <b>Teaching &amp; Learning Strategies:</b>  | This module is delivered as a mix of traditional lectures and practical sessions within a laboratory setting with a blend of interactive lectures and practical work. Learners are actively participating in class work throughout each scheduled session. |
| <b>Module Aim:</b>  | To provide practical experience in designing, developing and evaluating user interfaces and user experience.   |
| <b>Learning Outcomes</b>  |  |
| <i>On successful completion of this module the learner should be able to:</i>                                       |  |
| LO1   | Elicit and describe a set of user needs  |
| LO2   | Use design principles to develop low fidelity prototypes, high fidelity prototypes, and code-based prototypes  |
| LO3   | Design, run, and report on experiments to evaluate user experience   |
| <b>Pre-requisite learning</b>   |  |
| <b>Module Recommendations</b>   |  |
| <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>           |  |
| No recommendations listed   |  |
| <b>Incompatible Modules</b>   |  |
| <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i> |  |
| No incompatible modules listed  |  |
| <b>Co-requisite Modules</b>   |  |
| No Co-requisite modules listed  |  |
| <b>Requirements</b>   |  |
| <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>  |  |
| No requirements listed  |  |

## Module Content & Assessment

### Indicative Content

#### Design process

Needfinding. User modelling: personas and goals. Defining a problem. The purpose of prototyping. Evaluating user experience.

#### Prototyping

Storyboards. Paper prototyping. Low fidelity prototypes. High fidelity prototypes. UI Components. Visual design (colour palettes, typography, alignment). Animation. Code based prototypes.

#### Evaluating UI and UX

Mental models. Key measures (e.g. usability, accuracy, task completion time, learnability, emotional response). Experiment design. A-B testing. Comparative experiments. Surveys. Interviewing and participant observation. Creating a test plan. Recruiting participants.

#### Analysis of data

Visualizing data. Distributions. Statistical significance. Effect size. Introductory qualitative analysis. Drawing conclusions. Determining an action plan. Writing up a report.

### Assessment Breakdown

|                                  | %      |
|----------------------------------|--------|
| Project                          | 50.00% |
| Practical                        | 20.00% |
| End of Module Formal Examination | 30.00% |

No Continuous Assessment

### Project

| Assessment Type | Assessment Description   | Outcome addressed | % of total | Assessment Date |
|-----------------|--|-------------------|------------|-----------------|
| Project         | Design, develop, and evaluate a high fidelity prototype.                                       | 1,2,3             | 20.00      | Week 7          |
| Project         | Design, develop, and evaluate a code-based prototype and report the results of the evaluation. | 1,2,3             | 30.00      | End-of-Semester |

### Practical

| Assessment Type             | Assessment Description  | Outcome addressed | % of total | Assessment Date |
|-----------------------------|---|-------------------|------------|-----------------|
| Practical/Skills Evaluation | A series of practical labs to develop and practise the skills required in the projects. | 1,2,3             | 20.00      | n/a             |

### End of Module Formal Examination

| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date |
|-----------------|------------------------|-------------------|------------|-----------------|
| Formal Exam     | Final written exam     | 1,2,3             | 30.00      | End-of-Semester |

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

**Module Workload**

| <b>Workload: Full Time</b> |                    |  |
|----------------------------|--------------------|--|
| <i>Workload Type</i>       | <i>Frequency</i>   | <i>Average Weekly Learner Workload</i> |
| Lecture                    | 12 Weeks per Stage | 2.00                                   |
| Laboratory                 | 12 Weeks per Stage | 2.00                                   |
| Independent Learning       | 15 Weeks per Stage | 5.13                                   |
| Total Hours                |                    | 125.00                                 |

**Module Delivered In**

| Programme Code | Programme  | Semester | Delivery         |
|----------------|--|----------|------------------|
| CW_KCCGD_B     | <a href="#">Bachelor of Science (Honours) in Computer Games Development</a>        | 8        | Group Elective 1 |
| CW_KCCYB_B     | <a href="#">Bachelor of Science (Honours) in Cyber Crime and IT Security</a>       | 8        | Elective         |
| CW_KCCIT_B     | <a href="#">Bachelor of Science (Honours) in Information Technology Management</a> | 8        | Group Elective 1 |
| CW_KCSOF_B     | <a href="#">Bachelor of Science (Honours) in Software Development</a>              | 8        | Group Elective 1 |