Module Title:	User Interface Programming
Language of Instruction:	English

Credits:	10

NFQ Level:	6

Module Delivered In	No Programmes

Teaching & Learning Strategies:	A highly practical course - students will build their toolbox of elements for creating UIs through worked examples, short explanations, practical exercises, and each term applying all the skills they have learned on one large authentic project.

Module Aim:	Learn how to implement a broad range of easy to use, easy to learn user interfaces

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Implement standard and custom UI components
LO2	Create a fully operational interface from a mockup, video, or specification document
LO3	Test an interface with users and modify it to address issues that arise
LO4	Evaluate a UI framework for use in a given project

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

Module Content & Assessment

Indicative Content
UI Components Standard components such as: alerts, buttons, button groups, carousel, date picker, dropdown, form, labels, list, modal, nav bars, pop over, progress bar, sortable list, tables, text box (with prediction); custom components; combining components into larger designs
Layout and style Layout: grid systems, the box model, positioning elements, margins, padding, borders, styles (e.g. rounded corners, drop shadows), typography
Animation Transforms, transitions (e.g. slide in, hinge in, scale in), easing, keyframes.
Different target platforms Designing and developing UIs for different target platforms web, mobile, and desktop
Audio Audio interfaces, playing sounds, voice input
interaction Implementing different interaction approaches using mouse, keyboard, touch, gestures, voice
UI frameworks Detailed analysis and comparison of the most used frameworks; the merits of not using a framework

Assessment Breakdown	%
Continuous Assessment	20.00%
Project	50.00%
Practical	30.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	A set of class exams, largely testing the theoretical aspects of the module.	1,2,3,4	20.00	n/a

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Project 1: an authentic UI project involving iterations of design, development, and user testing, applying most of the skills learned in the first term.	1,2,3	25.00	End-of-Semester
Project	Project 2: an authentic UI project involving iterations of design, development, and user testing, applying most of the skills learned in the full course. This is a cross module project.	1,2,3,4	25.00	End-of-Semester

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Practical labs involving practising UI skills in preparation for the authentic projects	1,2,3,4	30.00	n/a

No End of Module Formal Examination

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

Module Workload

Workload: Full Time

Workload Type	Frequency	Average Weekly Learner Workload
Practicals	Every Week	4.00
Independent Learning	Every Week	2.50
	Total Hours	6.50

Discussion Note:	TEST