# 2024 / 25

**School of Science and Computing** 

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# **Module Descriptor**

User Experience Design (Computing and Mathematics)

Short Title: User Experience DesignDepartment: Computing and Mathematics

Credits: 5 Level: Introductory

# Description of Module / Aims

User Experience (UX) is a concept that has many dimensions, and it includes a variety of different disciplines? such as interaction design, visual design, usability, and human-computer interaction. This module will introduce the student to elements and tools that are essential for enhancing user satisfaction by improving motivation, usability and accessibility provided in the interaction between the user and the product in both web and non-web based interfaces. The student will engage in the various stages of the UX Design process, utilizing a variety of supportive tools to assist in the completion of the varied tasks of the UX Designer.

### **Programmes**

		stage/semester/status
COMP-0586	BSc (Hons) in Applied Computing (WD KCOMP B)	$2$ / $4$ / $\mathrm{E}$
	BSc (Hons) in Creative Computing (WD KCRCO B)	1 / 1 / M
COMP-0586	BSc (Hons) in Software Engineering (WD KDEVP BI)	$2\ /\ 3\ /\ { m M}$
COMP-0586	BSc (Hons) in Software Systems Development (WD KDEVP B)	$2/3/\mathrm{M}$
COMP-0586	BSc in Multimedia Applications Development (WD_KMULA_D)	1/1/M
COMP-0586	BSc in Software Systems Development (WD KCOMC D)	$2/3/\mathrm{M}$
COMP-0586	BA (Hons) in Design (Visual Communications) (WD_DVISC_B)	3 / 6 / E

#### **Indicative Content**

- Visual Design
- Interaction Design
- Usability and Accessibility
- Human Computer Interaction (HCI) & User Centred Design (UCD)
- Guidelines and Standards
- Evaluation and Testing

# **Learning Outcomes**

On successful completion of this module, a student will be able to:

- 1. Demonstrate an understanding of the underlying issues and principles of UX.
- 2. Demonstrate, at a fundamental level through written and practical work, the links between UX and Human Factors.
- 3. Apply the principles of UCD, to the capture of user requirements providing a basis for design that is fit for purpose.
- 4. Construct appropriate user interfaces for specific applications and specific users using low and high fidelity prototyping.
- 5. Explain the usability and accessibility of an interface with respect to different user populations.

# Learning and Teaching Methods

- Lectures –will be used to introduce and discuss UX concepts.
- Practicals/Workshops will be used to develop and apply the concepts introduced and discussed during lectures.
- Student Independent Learning Students will research and apply the various concepts introduced and discussed during lectures.
- Students will use MS Office and Adobe Creative Cloud.

# **Learning Modes**

Learning Type	$\mathbf{F}/\mathbf{T}$ Hours	P/T Hours
Lecture	24	
Practical	24	
Independent Learning	87	

### **Assessment Methods**

Weighting	Outcomes Assessed
100%	
35%	1,2
65%	$3,\!4,\!5$
	100% 35%

# **Assessment Criteria**

- <40%: Unable to interpret and describe key concepts of the specific knowledge domain(s).
- 40%-49%: Be able to interpret and describe key concepts of the specific knowledge domain(s).
- 50%–59%: Ability to discuss key concepts of the specific knowledge domain and ability to discover and integrate related knowledge in other knowledge domains.
- 60%-69%: Be able to solve problems within the specific knowledge domain(s) by experimenting with the appropriate skills and tools.
- 70%–100%: All the above to an excellent level. Be able to analyse and design solutions to a high standard for a range of both complex and unforeseen problems through the use and modification of appropriate skills and tools.

#### Essential Material(s)

- "Color in Motion." http://www.mariaclaudiacortes.com/colors/Colors.html
- "Interaction Design." http://www.id-book.com/index.php
- "UXMatters." Fundamental Principles of UX Design. http://www.uxmatters.com/mt/archives/2014/11/fundamental-principles-of-great-ux-design-how-to-deliver-great-ux-design.php
- Preece, J. and Rogers, Y. and Sharp, H. *Interaction Design: Beyond Human Computer Interaction*. 4th Edition. West Sussex: John Wiley and Sons, 2015.

#### Supplementary Material(s)

- Benyon, D. and Turner, P. and Turner, S. Designing Interactive Systems: People, Activities, Contexts, Technologies. Essex, UK: Addison-Wesley, 2005.
- Garrett, J.J. The Elements of User Experience: User Centred Design for the Web. 2nd Edition. New York: New Riders, 2010.
- Johnson, J. Designing with the Mind in Mind. 2nd Edition. Waltham, MA: Morgan Kaufman, 2014.
- McManus, S. Web Design: make your website a success!. 6th Edition. Warwickshire, England: In Easy Steps, 2014.

#### Requested Resources

• Computer Lab: Multimedia Lab