COURSE DETAILS
Course Code: F27IR
Full Course Title: Internet Technologies 1
SCQF Level: 7
SCAF Credits: 15
Available as Elective: No

DELIVERY LEVEL
Undergraduate: Yes  Postgraduate Taught: No  Postgraduate Research: No

Additional Information:
Replacing F27WX Web Design and Databases.

COURSE AIMS
• To introduce fundamental concepts of Internet architecture and technologies as well as current web architectures.
• To impart knowledge and understanding of Information Architecture (IA) and Human-Computer Interaction (HCI).
• To develop a critical appreciation of the importance and benefits of User eXperience in web design.
• To gain competence in script programming (e.g. JavaScript) and in using a range of web design technologies (e.g. HTML, XML, JSON, CSS).
• To teach best practices, principles and standards in web design.
• To enable students to design a real-world website and/or mobile app, embedded in and contextualised for the host company.

LEARNING OUTCOMES – SUBJECT MASTERY
• Detailed understanding of established protocols and standards underlying the Internet and web architectures.
• Extensive and critical knowledge of the theories and standards used in the design of websites, including UX, Information Architecture, HCI and UI Design principles.
• Proficiency in client-side script programming (e.g. JavaScript).
• In depth knowledge and hands-on experience in technologies such as HTML, CSS, XML and JSON.
• Ability to design rich UX mobile-first web applications using appropriate methodologies and technologies.

LEARNING OUTCOMES – PERSONAL ABILITIES
• Skills in selecting, applying and evaluating apt technologies professionally given a problem requiring a web design solution.
• Ability to analyse complex information and organise it in a structured way (e.g. for a website).
• Ability to design human-computer interfaces using the current web design theories and technologies.
• Showing creativity, problem solving (PDP) and time management (PDP) skills.
• Ability to reflect, learn from peers (PDP) and provide constructive and empowering feedback and critique.

SYLLABUS
Fundamental concepts of Human-Computer Interaction (HCI). User eXperience (UX) fundamentals.

User Interface (UI) Design Principles. Colour Theory in Web Design. The DOM programming interface. Data storage and exchange formats (e.g. XML, JSON). HTML mark-up fundamentals.

Semantic Web. HTML semantics, storage and APIs. CSS fundamentals. Grid-based design.

Selection, positioning and modelling with CSS. Reusable designs with CSS themes. JavaScript (JS) programming fundamentals. DOM Manipulation with JS.

Events Handling with JS. Mobile-first design principles. UX enrichment with JS, HTML and CSS.

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