Course Specifications

General Information

Course name	Web Technology
Course number	ITSE2302
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - 1. To acquaint the students with the basics of internet technologies.

2 - 2. To provide students with the principles and practical programming skills of developing Internet and Web applications.

3 - 3. To enable students to master the development skill for both client-side and server-side programming, especially for database applications.

4 - 4. Students will have opportunity to put into practice the concepts through programming exercises based on various components of client/server web programming.

Intended Learning Outcomes

Knowledge and Understanding	* Web development comes with a huge set of rules and techniques every website developer should know about. * Knowledge and understanding Have demonstrated knowledge and understanding principles of web technologies, including knowledge of creating and designing web sites * Applying knowledge and understanding Can apply their knowledge and understanding when creating web pages using HTML, CSS, JavaScript, work
Intellectual Skills	* Making judgment "Ability to gather, analyze, evaluate, and present information, ideas, concepts from relevant data; Exercise appropriate judgment, taking into account relevant personal, social, scientific or ethical aspects.
Professional Skills	* Learning skills Take initiative to identify and address learning needs for further knowledge * Describe the concepts of WWW including browser and HTTP protocol. * List the various HTML tags and use them to develop the user friendly web pages * Define the CSS with its types and use them to provide the styles to the web pages at various levels. * Develop the modern web pages using the HTML and CSS features with different layouts as per need of applications. * Use the JavaScript to develop the dynamic web pages. * Develop the modern Web applications using the client and server side technologies and the web design fundamentals.
General Skill	* Communication skills "Can communicate and discuss information, ideas, problems and solutions on the contexts where criteria for decisions and the scope of the task may be well defined to both specialist and non- specialist audiences"

Course Contents

1 - 1. Introduction: Concept of WWW, Internet and WWW, HTTP Protocol: Request and Response, Web browser and Web servers, Features of Web 2.0.

2 - 2. Web Design: Concepts of effective web design, Web design issues including Browser, Bandwidth and Cache, Display resolution, Look and Feel of the Website, Page Layout and linking, User centric design, Sitemap, Planning and publishing website, Designing effective navigation.

3 - 3. HTML: Basics of HTML, formatting and fonts, commenting code, color, hyperlink, lists, tables, images, forms, XHTML, Meta tags, Character entities, frames and frame sets, Browser architecture and Web site structure. Overview and features of HTML5.

4 - 4. Style sheets: Need for CSS, introduction to CSS, basic syntax and structure, using CSS, background images, colors and properties, manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS, CSS2, Overview and features of CSS3.

5 - 5. JavaScript: Client side scripting with JavaScript, variables, functions, conditions, loops and repetition, Pop up boxes, Advance JavaScript: Javascript and objects, JavaScript own objects, the DOM and web browser environments, Manipulation using DOM, forms and validations, DHTML: Combining HTML, CSS and Javascript, Events and buttons.

6 - 6. XML: Introduction to XML, uses of XML, simple XML, XML key components, DTD and Schemas, Using XML with application. Transforming XML using XSL and XSLT

Teaching and Learning Methods

1 - 1. Lectures

2 - 2. Tutorial Exercises

3 - 3. Practical Exercises

4 - 4. Projects

Students Assessment

Assessment Method	TIME	MARKS
Final Exam	Week 16	40%
Practical Exercises		25%
Mid-Term Exam	Week 8	25%
Projects & Activities		10%

Books and References

Essential books	1. Practical Web Development with Haskell: Master the Essential Skills to Build Fast and Scalable Web Applications. Publisher: Apress; 1st ed. edition (November 13, 2018). 4. Learning Web App Development: Build Quickly with Proven JavaScript Techniques 1st Edition. Publisher: OReilly Media; 1 edition (March 3, 2014).
Recommended books	2. Web Development with Go: Building Scalable Web Apps and RESTful Services 1st ed. Edition. Publisher: Apress; 1st ed. edition (December 25, 2015).
Other References (Periodical, web sites, ... etc.)	3. The Web App Path: How To Find Your Way Through The Jungle Of Web Application Development (Learn By Coding) Kindle Edition. Publication Date: December 19, 2016.