SYLLABUS

Module	Internet Programming and Web Optimization
Program	Business information technology, information technology and computer science
Faculty	Information Technology & Architecture
Module code	CSC3502
Lecturer	Name:mercy nyakundi Tel: 0787162273 E-mail: mercynd_08@yahoo.co.uk Consultation hours: 4pm-6pm Monday to friday
Study cycle	Undergraduate
Study trimester	III
Module status	Compulsory
Amount of credits and distribution of hours	15 credits 52 hours Lecture – 48hrs / Mid-term exam – 2hrs Final evaluation -2hrs
Admission preconditions	Introduction to ICT Programming in c Object oriented programming Networking and Database management system
Purposes of the module	The goal of the course is to provide students with necessary knowledge of core principles and technologies of Web design. It will cover fundamental principles of Web design such as page layout, color principles, style consistency, and use of css. Overview of Web technologies is dealt with markup languages (HTML), Style Sheet Languages (CSS), client-side scripting (JavaScript), and service-side scripting (PHP). Other topics focus on practical issues of building effective Web sites.
Learning outcomes	Upon completion of the course, students have the following general and professional knowledge, competences and abilities:
Knowledge and understanding	Having successfully completed the module, students should be able to demonstrate knowledge and understanding of: ❖ Core principles and technologies of Web design main Web technologies the ethical implications of their information technology decisions
Applying knowledge	Having successfully completed the module, students should be able to: ❖ Apply Web technologies ❖ Build effective (usable) Web sites ❖ Apply some of the latest information technology tools and techniques; ❖ Apply their information technology knowledge and skills in a multidisciplinary environment. ❖ Write service-side and client-side scripting ❖ Take responsibility for own work, taking responsibility in the development of resources, critical reflection on development process and work undertaken by self. ❖ Use multimedia technologies for a dynamic website

SYLLABUS

	❖ Ability to work independently on a small project, planning and managing time. ❖ Present work effectively to others, orally and written.
Making judgments	Having successfully completed the module, students should be able to: ❖ Think critically by designing websites responding to the needs and technologies for the client
Communication skills	Having successfully completed the module, students should be able to: ❖ Effective communication in electronic and written report form. ❖ Participate effectively in debates on a number of topical information technology issues;
Learning skills	Having successfully completed the module, students should be able to: ❖ Write service-side and client-side scripting ❖ Ability to work independently on a small project, planning and managing time.
Content (the content of the teaching for each day will be outlined)	**Day 1:** ❖ Overview of the course and syllabus ❖ Introduction to internet; server, client, mark up languages and scripting languages ❖ HTML versions ❖ Tools and software needed to create an HTML document ❖ Creating, Saving, Editing and openning an HTML document ❖ Structure of and HTML document ❖ Heading and paragraph tags ❖ Self closing tag; the line break **Day 2:** ❖ Formatting tags ❖ Inserting an horizontal rule ❖ Inserting comments ❖ HTML character entities ❖ Attributes of a Tag **Day 3:** ❖ Specifying colors on the web o Color by name o Color by rgb value o Color by code ❖ Inserting images on the web page **Day 4:** ❖ Working with HTML lists ❖ Working with HTML links **Day 5,6 &7:** ❖ Cascading Style Sheet o Using Inline/local style

SYLLABUS

- Using Internal style
- ❖ Working with HTML tables
  - External style sheet
- ❖ Using id and class

Day 8&9:

- ❖ Using the DIV element
- ❖ Loading audios on the web
- ❖ Loading videos on the web

Day 10:

- ❖ HTML forms
- ❖ Validating a form

Day 11:

- ❖ CATs

Day 12&13:

- ❖ Introduction to javascript
- ❖ Datatype, variables, operators in java script
- ❖ Statements used in javascript
- ❖ Functions: defining and calling
- ❖ Incorporating Javascript in the web page

Day 14:

- ❖ Introduction to php
  - Creating saving and executing a php file

Core Text

Fowler, S., Stanwik V. (2003). Web Application Design Handbook: Best Practices for Web-Based Software. Elsevier Inc, Morgan Kaufmann Publishers, San Francisco.

Brink, T., Gergle, D. & Wood, S. (2003) Usability for the Web: Designing Web Sites that Work. Morgan Kaufmann Publishers, San Francisco

Background Texts

Spool, J. M., Scanlon, T. et al. (2003) Web Site Usability: A Designer's Guide. Morgan Kaufmann Publishers, San Francisco

Johnson, J. (2003). Web Bloopers: 60 Common Web Design Mistakes, and How to Avoid Them. Morgan Kaufmann Publishers, San Francisco

Yuen, P.K., Lan, V. (2003). Practical Web Technologies. Pearson Education Ltd.

Welling, L., Thomsen, L. (2005). PHP and MySQL Web Development (Third Edition). SamsPublishing

Teaching / learning methods

Teaching and learning process includes the following methods:

Lecture	❖ Presentation ❖ Demonstration ❖ Induction ❖ Deduction ❖ Analysis

SYLLABUS

		❖ Synthesis ❖ Case study ❖ Teaching through electronic resources
	Group work	❖ Presentation ❖ Demonstration ❖ Case study ❖ Small project
	Practice / Lab work	❖ Students shall do a series of practical exercises during class lectures and after as home work
	Seminar	❖ Presentation
	Independent work	❖ Problem-based learning ❖ Case study ❖ Preparing presentations ❖ Doing homework
Evaluation criteria	**Assessment Strategy** Formative and summative assessments are organized. In-course assessment composed of written test, assignment or homework and handled practical assignment must be organized. Students have to receive comments on their works and results where it is needed. In-course assessment counts for 60% of the whole course marks while the final examination of 2 h 00’ duration will count for 40% **Assessment Pattern**	

Component	**Weighting (%)**	**Learning objectives covered**
In-course assessment:	60 %	Objectives related to the part of the content to be assessed.
Final assessment:	40 %	Objectives related to the whole content.