



Republic of the Philippines  
**SULTAN KUDARAT STATE UNIVERSITY**  
Isulan, Sultan Kudarat  
**College of Computer Studies**  
**S.Y. 2024-2025**



## UNIVERSITY VISION

A trailblazer in arts, science and technology in the region.

## UNIVERSITY MISSION

The University shall primarily provide advance instruction and professional training in science and technology, agriculture, fisheries, education and other related field of study. It shall undertake research and extension services, and provide progressive leadership in its area of specialization.

## UNIVERSITY GOAL

To produce graduates with excellence and dignity in arts, science and technology.

## UNIVERSITY OBJECTIVES

- a. Enhance competency development, commitment, professionalism, unity and true spirit of service for public accountability, transparency and delivery of quality services;
- b. Provide relevant programs and professional trainings that will respond to the development needs of the region;
- c. Strengthen local and international collaborations and partnerships for borderless programs;
- d. Develop a research culture among faculty and students;
- e. Develop and promote environmentally-sound and market-driven knowledge and technologies at par with international standards;
- f. Promote research-based information and technologies for sustainable development;
- g. Enhance resource generation and mobilization to sustain financial viability of the university.

**Program Objectives and its relationship to University Goals:**

PROGRAM OBJECTIVES (PO)	OBJECTIVES						
	a	B	c	d	e	f	G
A graduate of BS in Information System can:							
a. Design and implement business information system;	/	/			/		/
b. Perform theoretical and practical skills in innovating latest technology in computing;	/	/	/	/	/	/	/
c. Design industry based services and technology that will promote advancement and development to the community;	/	/	/	/	/	/	/
d. Demonstrate the code of conduct as well as social and legal aspects of Information System.	/	/	/	/	/	/	/

- 1. Course Code** : IT 113  
**2. Course Title** : Web Systems and Technologies  
**3. Prerequisite** : CC 113  
**4. Credits** : 3 UNITS

This course introduces students to the fundamental concepts of web systems and technologies. Students will gain an understanding of how the web works, explore the key components that make up a web system, and discover the languages and tools used to design and develop them. By the end of this course, students will be equipped with the foundational knowledge to pursue a career path in front-end design or web development.



## **6. Course Learning Outcomes and Relationships to Program Educational Objectives**

<b>Course Learning Outcomes</b>	<b>Program Objectives</b>			
<b>At the end of Semester the student can:</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>
a. Explain the concept of a web system and its key components.	/	/	/	/
b. Identify the benefits and applications of web systems in various contexts.	/	/	/	/
c. Understand the fundamental technologies used in front-end and back-end development and describe the roles of front-end developers, back-end developers, and full-stack developers.	/	/	/	/
d. Exhibit professionalism and adhere to ethical standards in computing and information systems development.	/	/	/	/

## 7. Course Content

Course Objectives, Topics, Time Allotment	Desired Student Learning Outcomes	Outcomes-Based Assessment (OBA) Activities	Evidence of Outcomes	Course Objectives	Program Outcomes	Values Integration
<b>Topic: SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System (2 hours)</b>						
1.1 Discuss the VMGO of the university, classroom policies, scope of the course, course requirements and grading system	1.1 Student can be aware of and appreciate of the university's VMGO, classroom policies, course overview, requirements and grading system.	Individual participation in class discussion and group presentation	Group and individual discussions			Value of appreciation
<b>2. Introduction to Web Systems (10 hours)</b>						
2.1. Introduce the concept of a web system and its key components.  2.2. Discuss the benefits and applications of web systems in various contexts.	2.1. Student can define the concept of a web system and its key components.  2.2. Student can explain the benefits and applications of web systems in various contexts.	Individual participation in class discussion and group presentation  Lectures Interactive Sessions Case Analysis Case Analysis rubrics	Group and individual discussions  Interactive Sessions Case Analysis Case Analysis rubrics	a, b, c, d	a, b, d	Value of appreciation
<b>3. Building Blocks of Web Development (16 hours)</b>						
3.1. Introduce front-end development and its focus on the user interface.	3.1. Student can understand the concept of front-end development.	Individual participation in class discussion	Group and individual discussions	a,b,d	a, c, d	Value of appreciation

<p>3.2. Explain the importance of a well-designed front-end for user experience.</p> <p>3.3. Discuss the roles of front-end developers, back-end developers, and full-stack developers.</p>	<p>3.2. Student can explain the importance of a well-designed front-end for user experience.</p> <p>3.3. Student can describe the roles of front-end developers, back-end developers, and full-stack developers.</p>	<p>and group presentation</p> <p>Lectures</p> <p>Interactive Sessions</p> <p>Case Analysis</p>	<p>Interactive Sessions</p> <p>Case Analysis</p> <p>rubrics</p>			
<p><b>4. Introduction to HTML (23 hours)</b></p>						
<p>4.1. Introduce HTML as the foundation for web page structure and content.</p> <p>4.2. Explain the basic syntax and elements used in HTML.</p> <p>4.3. Guide students through building a simple web page using HTML elements and attributes.</p>	<p>4.1. Student can understand the basic syntax and elements used in HTML.</p> <p>4.2. Student can construct a simple web page using HTML elements and attributes.</p> <p>4.3. Student can apply HTML formatting elements to structure and format content.</p>	<p>Individual participation in class discussion and group presentation</p> <p>Lectures</p> <p>Interactive Sessions</p> <p>Case Analysis</p>	<p>Group and individual discussions</p> <p>Interactive Sessions</p> <p>Case Analysis</p> <p>rubrics</p>	<p>a,b,d</p>	<p>a, b , c, d</p>	<p>Unity and teamwork</p> <p>Value of appreciation</p>

<b>5. Cascading Style Sheets (CSS) (23 hours)</b>						
5.1. Introduce CSS as the tool for styling and formatting web pages.  5.2. Explain basic selectors and properties used to control the visual appearance of website elements.  5.3. Guide students through styling text, images, and layout using CSS properties.	5.1. Student can understand the role of CSS in web development.  5.2. Student can apply basic selectors and properties to control the visual appearance of website elements.  5.3. Student can style text, images, and layout using CSS properties.	Individual participation in class discussion and group presentation  Lectures Situational Analysis Case Analysis Interactive Sessions	Group and individual discussions  Interactive Sessions, Situational and Case Analysis rubrics	a,b,d	a, c, d	Value of participation, teamwork, Hard work, Resourcefulness, accomplishments and appreciation
<b>6. JavaScript (23 hours)</b>						
6.1. Introduce JavaScript as a scripting language that adds interactivity and dynamic behavior to web pages.  6.2. Explore basic JavaScript syntax, variables, and event handling.	6.1. Student can understand the role of JavaScript in adding interactivity to web pages.  6.2. Student can apply basic JavaScript syntax, variables, and event handling.  6.3. Student can add events and	Individual participation in class discussion and hands on  Lectures Situational Analysis Case Analysis Group Demonstration Interactive Sessions	Group and individual discussions  Interactive Sessions, Situational Analysis, Case Analysis, and demonstration rubrics	a,b,d	a, c, d	Value of participation, Hard work, Resourcefulness, accomplishments, teamwork and communication

6.3. Guide students through adding events and interactions to a web page using JavaScript.	interactions to a web page using JavaScript.					
<b>7. Introduction to Web Design Principles (16 hours)</b>						
7.1. Introduce fundamental concepts of user interface (UI) and user experience (UX) design.	7.1. Student can understand the fundamental concepts of UI and UX design.	Individual participation in class discussion and hands on Lectures	Group and individual discussions	a,b,d	a,b, c, d	Value of participation, Hard work, Resourcefulness, accomplishments, teamwork and communication
7.2. Discuss key design considerations to create user-friendly and visually appealing web interfaces.						
7.3. Explore various design considerations for web interfaces.	7.2. Student can discuss key design considerations to create user-friendly and visually appealing web interfaces.	Situational Analysis Case Analysis Group Demonstration Interactive Sessions	Interactive Sessions ,Situational Analysis, Case Analysis, and demonstration rubrics			
<b>8. Web Development Frameworks (Optional) (16 hours)</b>						
8.1. Introduce the concept of web development frameworks and their benefits.	8.1. Student can understand the concept of web development frameworks and their benefits.	Individual participation in class discussion and hands on Lectures	Group and individual discussions	a,b,d	a, c, d	Value of participation, Hard work, Resourcefulness, accomplishments, teamwork and communication
8.2. Explore some popular front-end frameworks that	8.2. Student can explore some popular front-end frameworks	Situational Analysis Case Analysis Group Demonstration Interactive Sessions	Interactive Sessions ,Situational Analysis, Case Analysis, and demonstration rubrics			

enhance development efficiency.  8.3. Briefly introduce JQuery, w3.css, and Fontawesome.	that enhance development efficiency.  8.3. Student can briefly introduce JQuery, w3.css, and Fontawesome.					
<b>9. Project Development (Start) (23 hours)</b>						
9.1. Introduce the concept of project planning and wireframing for web development.  9.2. Guide students through defining project scope, user stories, and basic wireframing techniques.  9.3. Utilize acquired skills in HTML, CSS, and JavaScript to implement the planned web application.  9.4. Guide students on adding functionalities to their web application using learned programming concepts.	9.1. Student can understand the concept of project planning and wireframing for web development.  9.2. Student can define project scope, user stories, and basic wireframing techniques.  9.3. Student can utilize acquired skills in HTML, CSS, and JavaScript to implement the planned web application.  9.4. Student can add functionalities to their web application using	Individual participation in class discussion and hands on Lectures  Situational Analysis  Case Analysis  Group Demonstration  Interactive Sessions	Group and individual discussions  Interactive Sessions ,Situational Analysis, Case Analysis, and demonstration rubrics	a,b,d  Interactive Sessions ,Situational Analysis, Case Analysis, and demonstration rubrics	a,b, c, d  Interactive Sessions ,Situational Analysis, Case Analysis, and demonstration rubrics	Value of participation, Hard work, Resourcefulness, accomplishments, teamwork and communication

<p>9.5. Introduce testing and debugging techniques for identifying and resolving errors in web development.</p> <p>9.6. Guide students on testing their web application across various browsers and devices.</p>	<p>learned programming concepts.</p> <p>9.5. Student can apply testing and debugging techniques for identifying and resolving errors in web development.</p> <p>9.6. Student can test their web application across various browsers and devices.</p>				
<b>Total Hours</b>	<p><b>Lecture: 36</b></p> <p><b>Laboratory: 54</b></p> <p><b>Exam: 4</b></p> <p><b>Total : 94 hours</b></p>				

### Course Evaluation

#### Course Requirements:

#### Grading System:

##### MIDTERM

Exam	-50%
Class Work	-30%
Attendance	- 10%
Quizzes	-10%

##### MTG+FTG/2=FG

##### FINAL TERM

Exam	-50%
Class Work	- 30%
Attendance	- 10%
Quizzes	-10%

#### Schedule of Examination

Midterm	-
Final Term	-
Classes End	-

**References:****Online Resources**

- Khan Academy. (n.d.). Computer programming. <https://www.khanacademy.org/computing/computer-programming>  
Mozilla Developer Network. (n.d.). Mozilla developer network (MDN web docs). [developer.mozilla.org](https://developer.mozilla.org)  
W3Schools. (n.d.). W3Schools. <https://www.w3schools.com/>  
World Wide Web Foundation. (n.d.). World Wide Web Foundation. <https://www.w3.org/>

**Textbook:**

- Boulton, M. (n.d.). Designing for the Web. [Insert publisher information here]  
Haverbeke, M. (2014). Eloquent JavaScript. No Starch Press.  
Krug, S. (2000). Don't Make Me Think: A Guide to Web Usability. New Riders Publishing.  
Moseley, R., & Fuller, A. (2019). Web Development with HTML, CSS, JavaScript, and PHP. Pearson Education.  
Robson, E. (2011). Head First HTML and CSS. O'Reilly Media.

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