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

IT 221
Introduction to Human Computer Interaction
Syllabus

1st Semester
School Year 2024 – 2025

Prepared by:

ESNEHARA P. BAGUNDANG, MSIT

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

UNIVERSITY VISION

A leading University advancing scholarly innovation, multi-cultural convergence, and responsive public service in a borderless Region.

UNIVERSITY MISSION

The University shall primarily provide advanced instruction and professional training in science and technology, agriculture, fisheries, education and other relevant fields of study. It shall also undertake research and extension services, and provide progressive leadership in its areas 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 graduate of BS in Information Technology can:	a	b	c	d	e	f	g
a. Innovate technological concepts and ideas underpinning desired IT solutions;	/	/			/		/
b. Administer competently the computer networks, systems development, software applications, hardware and maintenance;	/	/	/	/	/	/	/
c. Design industry-based applications, infrastructures and technologies that will promote the advancement and development of the community;	/	/	/	/	/	/	/
d. Adopt to various national and international industries standards in the practice of the profession; and;	/	/	/	/	/	/	/
e. Demonstrate professionalism in the social, environmental and legal aspects of information technology.	/	/	/	/	/	/	/

1. Course Code **: IT 221**
2. Course Title : Introduction to Human Computer Interaction
3. Prerequisite : none
4. Credits : 3 UNITS

5. Course Description:
This course introduces the fundamental principles, techniques, and research areas of Human-Computer Interaction (HCI). It covers the design, evaluation, and implementation of user interfaces with a focus on improving the interaction between people and computers. Emphasis is placed on user-centered design, usability, and interactive system design.

6. Course Learning Outcomes and Relationships to Program Educational Objectives

Course Learning Outcomes	Program Objectives				
At the end of the semester, the students can:	a	b	c	d	e
a) Understand key principles and concepts of HCI and apply them in interface design.	/		/	/	/
b) Analyze user requirements and design user-friendly interfaces.	/		/	/	/
c) Evaluate the usability and effectiveness of human-computer interactions.	/		/	/	/
d) Conduct user research and usability testing.	/		/	/	/
e) Apply user-centered design processes in creating interactive systems.	/		/	/	/

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
Topic: SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System (2 hours)						
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
1 INTRODUCTION TO HUMAN COMPUTER INTERACTION (5hrs)						
1.1 Human Computer Interaction - Definition 1.2 Various Applications of Computer 1.3 How people interact with Computers? 1.4 Why HCI is important?	• Define HCI and its role in user-computer interactions. • Identify key computer applications and the relevance of HCI in each. • Describe common ways users interact with computers. • Explain the importance of	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence

	HCI in enhancing usability and user satisfaction.					
2 USER INTERFACE DESIGNING (5hrs)						
2.1 What is User Interface? 2.2 What is User Interface Design? 2.3 Components of User Interface 2.4 Principles of Good UI Design 2.5 Examples of Bad UI Design	• Define user interface and its role in user-computer interaction. • Explain the purpose and importance of user interface design. • Identify the key components of a user interface. • Outline the principles of effective UI design. • Recognize and analyze examples of poor UI design.	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful • Independence
3 USER EXPERIENCE DESIGNING (5hrs)						
3.1 What is User Experience? 3.2 What is User	• Define user experience (UX) and its significance in	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score	a,b,c,d,e	a,c,d,e	• Honesty • Integrity

Experience Design? 3.3 Where Does UX Design Come From? 3.4 Importance of UX in Today's Digital World 3.5 Key Elements of User Experience 3.6 Principles of Good UX 3.7 The UX Design Process	user interactions with products. ● Explain user experience design and its role in improving usability and satisfaction. ● Explore the origins and evolution of UX design. ● Highlight the importance of UX in enhancing digital interactions and competitiveness. ● Identify the key elements that shape a user's experience with a product. ● Outline the core principles that guide effective UX design. ● Summarize the main stages of		● Rubrics score for practical exercise.			• Hardworking • Dedicated to Work • Resourceful • Independence

	the UX design process.					
4 USER CENTERED DESIGNING (5hrs)						
4.1 What is User Centered Designing? 4.2 Key Principles of User-Centered Design 4.3 Research & Understand Users	• Define user-centered design and its focus on meeting user needs. • Outline the core principles that guide user-centered design. • Explain the importance of researching and understanding users in the design process.	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful • Independence
5 DESIGN CASE STUDIES (5hrs)						
5.1 Introduction to Design Case Studies 5.2 Analyzing Real-World Design Case Studies	• Understand how design case studies showcase the design process and thinking behind successful products. • Learn to analyze case studies by	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence

	identifying problems, solutions, and outcomes. ● Recognize the impact of good design in various industries through real-world examples. ● Gain insights into presenting their own design projects effectively.					
6 PROTOTYPING AND INTERFACE DESIGN (5hrs)						
6.1 Low-fidelity vs. high-fidelity prototyping 6.2 Wireframing and mockups ·6.3 Prototyping tools and techniques	● Differentiate between low-fidelity and high-fidelity prototyping. ● Create wireframes and mockups for user interface design. ● Use prototyping tools effectively	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score ● Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence

	to visualize design ideas.					
7 EVALUATION TECHNIQUES IN HCI (5hrs)						
7.1 Evaluation methods: formative vs. summative 7.2 Heuristic evaluation and cognitive walkthroughs 7.3 Usability testing (lab vs. field)	• Explain the difference between formative and summative evaluations. • Perform heuristic evaluations and cognitive walkthroughs to assess usability. • Conduct usability tests and analyze the results to improve user interfaces.	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence
8 USER RESEARCH METHODS (5hrs)						
8.1 Qualitative and quantitative research 8.2 Interviews, surveys, focus groups 8.3 Ethnography and observational studies	• Use qualitative and quantitative research methods to gather user insights. • Design and conduct interviews, surveys, and	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence

	focus groups to understand user needs. • Employ ethnographic and observational techniques to study user behavior in context.					
9 EMERGING TRENDS IN HCI (5hrs)						
9.1 Artificial intelligence in HCI 9.2 Augmented Reality (AR) and Virtual Reality (VR) 9.3 Brain-computer interfaces (BCIs)	• Explore the role of AI, AR, and VR in enhancing user interaction. • Understand how brain-computer interfaces (BCIs) are reshaping HCI. • Analyze the implications of emerging technologies on the future of HCI.	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence

10 PROJECT DEVELOPMENT AND FEEDBACK (5hrs)						
10.1 Project progress presentations 10.2 Peer feedback and critique 10.3 Refining project based on feedback	• Present progress on final projects and receive constructive feedback. • Apply peer feedback to refine and improve project designs. • Demonstrate effective teamwork in the design process.	• Review Questions/ Quiz • Practical Exercise	• Review Questions/Quiz Score • Rubrics score for practical exercise.	a,b,c,d,e	a,c,d,e	• Honesty • Integrity • Hardworking • Dedicated to Work • Resourceful Independence
Examination (4 hours) Lectures (50 hours) **Total no. of Hours: 54 hours**						

8. Course Evaluation

Grading System:

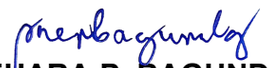
MIDTERM		**FINAL TERM**	
Exam	-40%	Exam	-40%
Quizzes/Exercises/Project	-60%	Quizzes/Exercises/Project	-60%
	100%		100%

MTG+FTG/2=FG

References:

1. "Human-Computer Interaction" by Alan Dix, Janet Finlay, Gregory D. Abowd, and Russell Beale
2. "The Design of Everyday Things" by Don Norman
3. "Interaction Design: Beyond Human-Computer Interaction" by Helen Sharp, Jenny Preece, and Yvonne Rogers
4. "About Face: The Essentials of Interaction Design" by Alan Cooper, Robert Reimann, David Cronin, and Christopher Noessel
5. "Designing the User Interface: Strategies for Effective Human-Computer Interaction" by Ben Shneiderman and Catherine Plaisant
6. "Sketching User Experiences: Getting the Design Right and the Right Design" by Bill Buxton
7. "The Elements of User Experience: User-Centered Design for the Web and Beyond" by Jesse James Garrett
8. "Universal Principles of Design" by William Lidwell, Kritina Holden, and Jill Butler
9. "Human-Computer Interaction: An Empirical Research Perspective" by I. Scott MacKenzie
10. "Usability Engineering" by Jakob Nielsen

Prepared by:



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