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 Objectives:

PROGRAM OBJECTIVES (PO) A graduate of BS in Computer Science can:	UNIVERSITY OBJECTIVES						
	A	B	C	D	E	F	G
1. Design and implement effectively the innovative computing researches	/	/	/	/	/	/	/
2. Apply proficiently the algorithmic theories and related computational system in conducting researches	/	/	/	/	/	/	/
3. Address societal problems through producing sustainable research outputs	/	/	/	/	/	/	/
4. Demonstrate the code of conduct as well as the social and legal aspect of computer science.	/	/	/	/	/	/	/

1. Course Code : CS 400
2. Course Title : Thesis Writing 1
3. Prerequisite :
4. Credits : 3 UNITS

5. Course Description:

Thesis Writing 1 is a foundational course designed to guide BS Computer Science students through the initial stages of the research process. It encompasses the formulation of a research problem, conceptualization of a research design, construction of data collection instruments, and the drafting of a comprehensive thesis proposal. Emphasis is placed on critical thinking, methodological rigor, and ethical research practices. Students will engage in activities that include literature review, objective setting, scope and delimitation definition, and the development of a research methodology. The culmination of the course is the preparation and defense of a thesis proposal, laying the groundwork for the subsequent implementation phase in Thesis Writing 2.

6. Course Learning Outcomes and Relationships to Program Objectives

Course Learning Outcomes	Program Objectives				
At the end of the semester, the students can:	a	b	c	d	e
1. Formulate a Research Problem. Identify and articulate a clear and concise research problem relevant to the field of computer science.				/	/
2. Conduct a Comprehensive Literature Review. Gather, analyze, and synthesize existing literature to establish the context and significance of the research problem.	/	/	/	/	
3. Develop Research Objectives and Questions. Define specific, measurable, achievable, relevant, and time-bound (SMART) research objectives and formulate corresponding research questions.	/	/	/	/	/
4. Design Appropriate Research Methodology. Select and justify suitable research methods and techniques for data collection and analysis pertinent to the research problem.	/	/	/	/	/
5. Address Ethical Considerations**.** Recognize and apply ethical principles in the conduct of research, including issues related to consent, confidentiality, and data integrity.	/			/	

6. Prepare a Structured Research Proposal. Compose a well-organized research proposal that includes an introduction, literature review, methodology, and anticipated outcomes.		/	/		
7. Present and Defend Research Proposal. Effectively communicate and defend the research proposal through oral presentations, demonstrating clarity, coherence, and critical engagement with feedback.					/
8. Demonstrate Academic Writing Proficiency**.** Employ proper academic writing conventions, including citation styles and formatting, to produce a scholarly research document.	/	/	/	/	/
9. Formulate a Research Problem. Identify and articulate a clear and concise research problem relevant to the field of computer science.					
10. Conduct a Comprehensive Literature Review. Gather, analyze, and synthesize existing literature to establish the context and significance of the research problem.	/	/	/	/	/
11. Develop Research Objectives and Questions**.** Define specific, measurable, achievable, relevant, and time-bound (SMART) research objectives and formulate corresponding research questions.					

7. Course Content

Course Objectives, Topics, Time Allotment	Desired Student Learning Outcomes	Outcomes-Based Assessment (OBA) Activities	Evidence of Outcomes	Course Learning Outcomes	Program Objectives	Values Integration
1. Topic: SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System (2 hour)						
Discuss the VMGO of the university, classroom policies, scope of the course, course requirements and grading system	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	a	e	Value of appreciation
1. Introduction to Research and Thesis Writing (3 hours)						
Understanding Research in Computer Science, Types of Research, Methodologies, Structure of a Thesis, Ethical Considerations in Research	Understand the fundamentals of research and its relevance to computing	Reflection paper on the role of research in computing	Written output; class discussion	a,b,c,d,	a,b,c,d,	Intellectual, curiosity
2. Identification of Research Problem (6 hours)						
Understanding Research Problems, Sources of Research Problems, Criteria for Selecting a Research	Identify a feasible and relevant research problem	Submission of 3 possible research problems with rationale	List of proposed topics with justifications	a,b,c,d,	a,b,c,d,	Creativity, initiative

Problem, Formulating the Research Problem Statement, Evaluating and Refining the Research Problem						
3. Literature Review and Related Works (9 hours)						
Introduction to Literature Review, Conducting a Literature Search, Organizing the Literature, Critical Analysis and Synthesis, Citation and Referencing	Conduct a literature review using credible sources	Annotated bibliography; related literature synthesis	Submitted Annotated bibliography; Literature matrix; review draft	a,b,c,d,e	a,b,c,d,e	Integrity, perseverance
4. Writing the Research Introduction and Background (6 hours)						
Purpose and Importance of the Introduction, Crafting the Introduction, Developing the Background of the Study, Integrating the Introduction and Background	Write a coherent and relevant research introduction	Submission of Chapter 1 draft	Draft of Introduction Chapter	a,b,c	a,b,c	Clarity, thoroughness
5. Formulating Objectives and Scope & Delimitation (6 hours)						
Research Objectives, Scope of the Study, Delimitations	Develop clear research objectives and define the study's scope	Workshop: rewriting objectives and delimitation	Feedback form; improved draft	a,b,c,d,	a,b,c,d,	Precision, focus
6. Research Methodology (9 hours)						
Introduction to Research Methodology, Research Design, Data Collection Methods, Data Analysis Techniques, Interpreting and Presenting Results	Identify suitable research design and methodology	Chapter 3 writing activity with peer evaluation	Draft of Methodology Chapter	a,b,c,d	a,b,c,d	Objectivity, reliability
7. Ethical Considerations and Documentation (3 hours)						
Introduction to Research Ethics, Ethical Issues in Research, Ethical Documentation in Research	Understand ethical issues in research and proper citation	Mini-lecture; plagiarism checker usage	Turnitin report; citation samples	a,b,c,	a,b,c,	Honesty, responsibility

8. Proposal Writing and Presentation Techniques (6 hours)						
Introduction to Research Proposals, Writing Techniques for Research Proposals, Presentation Techniques for Research Proposals	Write and present a full thesis proposal	Proposal writing and mock presentation	Final draft of proposal; peer & panel evaluation	a,b,c,d,	a,b,c,d,	Confidence, professionalism
9. Proposal Defense (6 hours)						
Purpose and Structure of a Proposal Defense, Preparing for the Proposal Defense, Conducting the Proposal Defense, Post-Defense Actions	Defend the research proposal to a panel	Conduct formal proposal defense	Defense rubric; panel feedback	a,b,c,d,e	a,b,c,d,e	Respect, openness to critique
Contact Hours **:** *54 Hours*						

8. Course Evaluation

Course Requirements:

a. *Active Participation.* Students are expected to attend all scheduled sessions and actively participate in discussions, workshops, and peer reviews. Regular attendance and engagement are crucial for collaborative learning and timely feedback.
b. *Research Proposal Development.* Each student must develop a comprehensive research proposal, encompassing the introduction, literature review, objectives, methodology, ethical considerations, and expected outcomes. This proposal should demonstrate a clear understanding of the research process and academic writing standards.
c. *Oral Presentation and Defense*. Students are required to present and defend their research proposals before a panel. This includes preparing effective presentation materials and responding to questions and feedback, showcasing their communication and critical thinking skills.
d. *Writing Assignments and Revisions.* Throughout the course, students will complete various writing assignments related to their research proposals. Emphasis is placed on the writing process, including drafting, receiving feedback, and revising to improve clarity, coherence, and academic rigor.
e. *Adherence to Ethical Standards.* Students must demonstrate an understanding of ethical research practices, including obtaining informed consent, ensuring confidentiality, and avoiding plagiarism. Proper documentation and ethical considerations should be integrated into their research proposals.

Grading System:

MID-TERM and **FINAL-TERM**

Attendance	10%
Assignment	5%
Quiz	15%
Seatwork/lab exercises	20%
Exam	50%

Schedule of Examination:

Midterm
Final Term
Classes End

References:

Textbooks:

1. **Zobel, J.** (2014). *Writing for Computer Science* (3rd ed.). Springer. A comprehensive guide tailored for computer science students, covering the nuances of writing and presenting research effectively.
2. **Berndtsson, M., Hansson, J., Olsson, B., & Lundell, B.** (2008). *Thesis Projects: A Guide for Students in Computer Science and Information Systems* (2nd ed.). Springer. Offers practical advice on planning and executing thesis projects, emphasizing real-world applications in computing.
3. **Kothari, C. R., & Garg, G.** (2019). *Research Methodology: Methods and Techniques* (4th ed.). New Age International Publishers. Provides foundational knowledge on research methods, suitable for students embarking on thesis work.
4. **Aguinis, H.** (2022). *Research Methodology: Best Practices for Rigorous, Credible, and Impactful Research*. SAGE Publications. Focuses on ensuring research quality and integrity, essential for producing credible theses.
5. **Mbanaso, U. M., Abrahams, L., & Okafor, K. C.** (2023). *Research Techniques for Computer Science, Information Systems and Cybersecurity*. Springer. Delivers specialized research techniques pertinent to computer science and related fields.
6. **Booth, W. C., Colomb, G. G., & Williams, J. M.** (2016). *The Craft of Research* (4th ed.). University of Chicago Press. A classic resource that guides students through the research process, from formulating questions to presenting findings.

Supplemental:

1. **IEEE Referencing Style**: Widely adopted in computer science, the IEEE style provides a standardized approach to citing sources. (IEEE style
2. **Formatting Guidelines for Theses and Dissertations**: Institutions like the University of Iowa offer detailed formatting requirements to ensure consistency and professionalism in academic submissions. (Formatting Your Thesis | Graduate College - The University of Iowa)
3. **CHED Guidelines on Thesis Writing**: The Commission on Higher Education (CHED) in the Philippines provides directives to maintain academic standards in thesis writing. (CHED GUIDELINES ON THESIS WRITING.docx - METHODS OF...)

Prepared by:	Reviewed by:	Approved by:
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