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 graduate of BS in Information Systems can:	a	b	c	d	e	f
a) Perform theoretical and practices skills in innovating latest technology in computing;	/	/	/	/	/	/
b) Design and implement business information systems;		/			/	/
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   : IS 111
2. Course Title   : FUNDAMENTALS OF INFORMATION SYSTEMS
3. Prerequisite   : NONE
4. Credits   : 3 UNITS

5. Course Description:

    This course is designed to introduce students to current information systems and demonstrate how these systems are used throughout global organizations. The focus of this course will be on the key components of information systems - people, software, hardware, database, and telecommunication and how these components can be integrated and managed to create competitive advantage. Through the knowledge of how IS provides a competitive advantage students will gain an understanding of how information is used in organizations and how IT enables improvement in quality, speed, and agility. This course also provides an introduction to systems and development concepts, technology acquisition, and various types of application software that have become prevalent or are emerging in modern organizations and society.

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
a. Describe the role of information systems in an organization,	/	/		/
b. Understand and evaluate the components of an information system,	/	/	/	/
c. Describe the role of databases and data warehouses in an organization,	/			/
d. Understand the principles of networking underlying modern information systems,	/	/		/
e. Identify appropriate technologies to support electronic commerce, decision making, and other organizational activities.	/	/		/
f. Analyze organizational structures and information flow in an organization.	/	/		/

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
SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System (1 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	Class Participation		A,D	Value of appreciation
Lesson 1: Introduction to Information Systems in Organizations (9hours)						
1.1 Describe the basic types of business information systems and discuss who uses them, how they are used, and what kinds of benefits they deliver. 1.2 Explain key issues and challenges that must be overcome to be successful in the global market. 1.3 Discuss the significant benefits as well as problems and issues associated with information systems. 1.4 Discuss the term value chain and describe the role that information systems	At the end of the topic, the students can: 1.1 Identify the basic types of business information systems and discuss who uses them, how they are used, and what kinds of benefits they deliver. 1.2 Identify key issues and challenges that must be overcome to be successful in the global market. 1.3 Identify the significant benefits as well as problems and issues associated with information systems. 1.4 Define the term value chain and describe the role that information systems play in	Talk and Learn: Sharing Ideas Quiz & Assignments Brainstorming: Competitive Advantage Oral Recitation: Self-Survey-Challenge	Individual score for sharing ideas Result of Quizzes & Assignments Activity Score Individual Score	A,,B,F	A,B,D	Awareness on the significant benefits of IS Building Self-confidence Value of appreciation Value of participation

play in an organization supply chain. 1.5 Explain the term "competitive advantage" and identify the factors that lead firms to seek competitive advantage. 1.6 Describe three methods for assessing the financial attractiveness of an information system project. 1.7 Discuss the types of roles, functions and careers available in the field of information systems.	an organization supply chain. 1.5 Define the term "competitive advantage" and identify the factors that lead firms to seek competitive advantage. 1.6 Describe three methods for assessing the financial attractiveness of an information system project. 1.7 Define the types of roles, functions and careers available in the field of information systems.					

Lesson 2: Hardware and Software (6 hours)

	At the end of the topic, the students can:					
2.1 Discuss the role of the essential hardware components of a computer system 2.2 Discuss the characteristics of and discuss the usage of various classes of single-user and multiuser computer systems 2.3 Explain the term green computing and identify the primary goals of this program 2.4 Describe briefly the functions of the two basic kinds of software	2.1 Identify and discuss the role of the essential hardware components of a computer system 2.2 Identify the characteristics of and discuss the usage of various classes of single-user and multiuser computer systems 2.3 Define the term green computing and identify the primary goals of this program 2.4 Identify and briefly describe the functions of the two basic kinds of software	Students participation in question and answer activity facilitated by teacher Quiz & Assignments IPO Challenge: Name Me!	Student Score Result of Quiz & Assignments Rubrics/Score	B,E	A,B,C,D	Sense of Responsibility in promoting green computing Value of appreciation Value of participation

2.5 Discuss the role of the operating system and identify the features of several popular operating systems 2.6 Discuss how application software can support personal, workgroup, and enterprise business objectives	2.5 Outline the role of the operating system and identify the features of several popular operating systems 2.6 Understand how application software can support personal, workgroup, and enterprise business objectives					
Lesson 3: Database Systems and Application (3 hours)						
	At the end of the topic, the students can:					
3.1 Define general data management concepts and terms, highlighting the advantages of the database approach to data management 3.2 Describe Data Modeling and Database Characteristics 3.3 Discuss the Database Management Systems	3.1 Understand the general data management concepts and terms, highlighting the advantages of the database approach to data management 3.2 Describe logical and physical database design considerations and the relational database model. 3.3 Identify the common functions performed by all database management systems, and identify popular database management systems. 3.4 Identify and briefly discuss business intelligence, data	Students participation in question and answer activity facilitated by teacher Quiz & Assignments Interactive Session: Case Analysis Readings: Textbook Assignment	Student Score Result of Quiz & Assignments Group Score Advance knowledge on the subject matter through class participation	B,C,E	A,B,C	Understanding Value of appreciation Value of participation Teamwork

3.4 Briefly discuss business intelligence, data mining, and other database applications.	mining, and other database applications.					

Lesson 4: Telecommunication and Networks (3 hours)

	At the end of the topic, the students can:					
4.1 Discuss and describe the overview and fundamental components of a telecommunications system 4.2 Discuss the three basic processing alternatives for organizations that require two or more computer systems and discuss their fundamental features 4.3 Explain the terms internet, intranet and extranet and illustrate how organizations are using them 4.4 Describe how the World Wide Web works and the use of Web browsers, search engines, and other Web tools	4.1 Identify and describe the fundamental components of a telecommunications system 4.2 Name three basic processing alternatives for organizations that require two or more computer systems and understand their fundamental features 4.3 Define the terms internet, intranet and extranet and learn how organizations are using them 4.4 Understand how the World Wide Web works and learn the use of Web browsers, search engines, and other Web tools	Students participation in question and answer activity facilitated by teacher Quiz & Assignments Drawing Activity: Network Designing	Student Score Result of Quiz & Assignments Score	B,C,D,E	A,B,C	Creativity Teamwork Value of Appreciation

Lesson 5: Electronic and Mobile Commerce and Enterprise Systems (5 hours)

	At the end of the topic, the students can:					
5.1 Discuss an Introduction to Electronic Commerce	5.1 Describe the current status of various forms of e-commerce, including B2B,	Students participation in question and	Student Score	B,C,D,E	A,B,C	Awareness

	B2C, C2C, and m-commerce.	answer activity facilitated by teacher				Effective Teamwork
5.2 Discuss Mobile Commerce	5.2 Understand M-Commerce and its several applications.	Quiz & Assignments	Result of Quiz & Assignments			Resourcefulness Value of Appreciation
5.3 Discuss Electronic and Mobile Commerce Applications	5.3 Identify several advantages associated with the use of e-commerce and m-commerce.	Interactive Session: From Stand-Alone to Integrated Application	Student Score			Value of Participation
5.4 Explain and describe E-Commerce and M-Commerce Technology Infrastructure	5.4 Learn the key components of technology infrastructure that must be in place for e-commerce and m-commerce to work.					
5.5 Discuss the overview of Transaction Processing Systems	5.5 Understand the purpose of transaction Processing System in organization					
5.6 Explain Transaction Processing Activity	5.6 Understand the basic activities and business objectives common to all transaction processing systems.					

Lesson 6: Information and Decision Support Systems (4 hours)

	At the end of the topic, the students can:					
6.1 Discuss the stages of decision making and importance of implementation and monitoring in problem solving. 6.2 Explain the uses of Management Information Systems and their inputs and outputs 6.3 Discuss information systems in the functional areas of business organizations. 6.4 Discuss the overview of Decision Support Systems 6.5 Explain the components of Decision Support Systems 6.6 Group Decision Support Systems	6.1 Discuss the stages of decision making and importance of implementation and monitoring in problem solving. 6.2 Describe the uses of MISs and describe their inputs and outputs. 6.3 Examine information systems in the functional areas of business organizations. 6.4 List and discuss important characteristics of DSSs that give them the potential to be effective management support tools. 6.5 Identify and describe the basic components of a DSS. 6.6 State the goals of a GSS and identify the characteristics that distinguish it from a DSS.	Students participation in question and answer activity facilitated by teacher Quiz & Assignments Interactive Session: Problem Solving	Student Score Result of Quiz & Assignments Presentation of Outputs	A,B,C,D,E,F	A,B,C,D	Critical Thinking Value of appreciation Value of participation

Lesson 7: Knowledge Management and Specialized Information (3 hours)

	At the end of the topic, the students can:			A,B,C,D,E,F	A,B,C,D	

7.1 Discuss the concept of Knowledge Management Systems	7.1 Understand the Knowledge Management Systems and List some of the tools and techniques used in knowledge management	Reading Assignments in Supplementary Book	Score of Synthesis Output			Critical Thinking
7.2 Give an overview of Artificial Intelligence	7.2 Define the term artificial intelligence and state the objective of developing artificial intelligence systems	Students participation in question and answer activity facilitated by teacher	Student Score			Responsive-ness Understan-ding
7.3 Give an overview of Expert Systems	7.3 List the characteristics and basic components of expert systems					Value of appreciation
7.4 Discuss the Multimedia and Virtual Reality	7.4 Discuss the use of multimedia in a business setting Define the term virtual reality and augmented reality and provide three examples of these applications.	Quiz & Assignments Group Dynamics: Video Analysis	Result of Quiz & Assignments Rubrics/Score			Value of participation
Lesson 8: Systems Development (5 hours)						
	At the end of the topic, the students can:			A,B,C,D,E,F	A,B,C,D	
8.1 Give an Overview of Systems Development	8.1 Identify and briefly discuss the purpose of some of the tools and techniques used in the system development process.	Students participation in question and answer activity facilitated by teacher	Student Score			Critical Thinking & Problem Solving
8.2 Discuss the Traditional Systems Development Life Cycle	8.2 Outline and state the purpose of each phase of the traditional systems development process.					Resourcefulne ss
8.3 Explain the advantages and disadvantages of the	8.3 Identify the advantages and disadvantages of the	Quiz & Assignments	Result of Quizzes/ Assignments/			Self-confidence

traditional systems development process 8.4 Briefly discuss measures necessary to avoid these causes of project failure	traditional systems development process 8.4 Understand measures necessary to avoid these causes of project failure	Interactive Session Self-Survey-Test: Understanding the World of IS	Individual or Group Interactive Sessions Individual Score to their outputs			Teamwork and Collaboration Value of appreciation Value of participation
Lesson 9: Information Systems in Business and Society: The Personal and Social Impact of Computers (3 hours)						
9.1 Describe some examples of waste and mistakes in an IS environment, their causes, and possible solutions. 9.2 Discuss policies and procedures useful in eliminating waste and mistakes.	At the end of the topic, the students can: 9.1 List some examples of waste and mistakes in an IS environment, their causes, and possible solutions. 9.2 Identify policies and procedures useful in eliminating waste and mistakes.	Students participation in question and answer activity facilitated by teacher Quiz & Assignments Group Dynamic: Interactive Session	Student Score Result of Quiz & Assignments Rubrics/Score	A,B,C,D,E,F	A,B,C,D	Critical Thinking Value of appreciation Value of participation
Class Project Presentation (6 hours)						
Project Name: **Make Changes through Innovations.** Students will evaluate existing information systems in an organization and document. After evaluation, they should come-up with a proposal of the project that will help the organization in its business goal.						
Lectures (50 hours)						
Examination (4 hours)						
Total contact hours (54 hours)						

8. Course Evaluation

Course Requirements:
- Compilation of the Individual or group interactive session
- Completion of the project

Grading System:

	MIDTERM			FINAL TERM	
	Exam	- 50%		Exam	- 50%
	Quizzes/ In-class Activity/Assignment	- 40%		Quizzes/ In-class Activity/Assignment	- 40%
	Attendance	- 10%		Attendance	- 10%

$$MTG+FTG/2=FG$$

Schedule of Examination:

Midterm exam:	Aug. 8-10, 2018
Final Exam :	Oct. 10-12, 2018
Class End :	Oct. 15, 2018

References:

Text books

Stair, R., Reynolds, G. (2016). Fundamentals of Information Systems, Eighth Edition. USA: Cengage Learning.
Shelly. (2011). Discovering Computers – Fundamentals, 2011 Edition.
Laudon, K., Laudon, J. (2015). Management Information Systems, Managing a Digital Firm, 12th Edition
Larry Long, Management information Systems (2009) Prentice-Hall International Editions
Raymond McLeod, Jr. (2013), George Schell, Management Information Systems 9th Edition, Personal Edu. South asia Pte Ltd., ISBN 981-06-9930-1
M.C.A. (Sem III) Paper - VI- Management Information System, October 2011, Institute of Distance and Open Learning University of Mumbai
Terru Lucey (2005) Management Information Systems, 9th Edition, 2005, Thomson Publishing, ISBN 1-84480-126-8
A Practical Guide to Information Systems Strategic Planning, Second Edition, Anita Cassidy, Auerbach Publications. 2005.
Brown, C., DeHayes, D., et.al. (2009) Managing Information Technology, Prentice Hall, 6th ed.
Stair, R., Reynolds, W. (2007) Principles of Information System, Thomson, 7th ed.

Supplemental

http://en.wikipedia.org/wiki/Peopleware
http://www.uotechnology.edu.iq/ce/Lectures/SarmadFuad-MIS/MIS_Lecture_3.pdf
http://araku.ac.ir/~a_fiantial/ISR_Lec_[4].pdf
http://www.tutorialspoint.com/management_information_system/index.htm
http://www.tutorialspoint.com/management_information_system/management_information_system.htm
http://csrc.nist.gov/publications/nistpubs/index.html

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