



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)	UNIVERSITY OBJECTIVES						
	a	b	c	d	E	f	g
A graduate of BS in Information Technology (BSIT) can:							
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. demonstrate the code of conduct as well as the social and legal aspects of information technology; and	/	/	/	/	/	/	/

- 1. COURSE CODE : CC111
- 2. COURSE TITLE : Introduction to Computing
- 3. PREREQUISITE : NONE
- 4. CREDITS : 3 UNITS
- 5. COURSE DESCRIPTION :

This course focuses on learning some of the most significantly used office application software such as MS Word, MS Excel, MS PowerPoint and video and audio editing software. This course covers the important features of the said software and allows the students to perform laboratory works in order to learn the said features. This course provides of the Computing Industry and Computing profession, including Research and Applications in different fields; an Appreciation of Computing in different fields such as Biology, Sociology, Environment and Gaming; and understanding of ACM Requirements; an Appreciation of the history of computing and Knowledge of Key Components of Computer Systems (Organization and Architecture), malware, Computer Security, Internet and Internet protocols.

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
a.	describe the five components of a computer: input devices, output devices, system unit, storage devices and communication devices;	/	/	/	
b.	discuss the advantages and disadvantage that users experience when working with computer		/	/	/
c.	discuss the uses of Internet and World Wide Web	/	/	/	/
d.	distinguish between system software and application software	/	/		
e.	differentiate among types, sizes and functions of computer in each of these categories: personal computers (desktop), mobile computers and mobile devices, game consoles, servers, mainframes, supercomputers and embedded computers	/	/		
f.	explain how home users, small office, home office users, mobile users, power users and enterprise users interact with computer		/	/	/
g.	discuss how society uses computer in education, finance, health care, science, publishing, travel and manufacturing			/	/
h.	describe the various types of internet and network attacks		/	/	
i.	discuss techniques to prevent unauthorized computer access and use		/	/	/
j.	discuss ways to prevent health related disorders and injuries due to computer use			/	/
k.	discuss issues surrounding information privacy, including electronic profiles, cookies, spyware, adware, spam, phishing, privacy laws, social engineering, employee monitoring and content filtering		/	/	/

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
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	1. Student can be aware of and appreciate the university's VMGO, classroom policies,	Individual participation in class discussion and group presentation	Group and individual discussions			Value of appreciation

requirements and grading system	course overview, requirements and grading system.					
CHAPTER 1: INTRODUCTION TO COMPUTERS (6 HOURS)						
At the end of the lesson the student can: 2.1. Explain why computer literacy is vital to success in today's world 2.2. Describe the five components of a computer system 2.3. Discuss the advantages and disadvantages that users experience when working with computers 2.4. Discuss the uses of internet and world wide web 2.5. Distinguish between system software and application software 2.6. Differentiate among types, sizes and functions of computers in each category 2.7. Explain how home users, small office/home office	The student can: 2.1. understand the importance of computer literacy in today's world 2.2. identify the different components of a computer system 2.3. enumerate the advantages and disadvantages of the users when working with computers 2.4. appreciate the uses of internet and world wide web 2.5. differentiate system software and application software 2.6. identify the different types, sizes, and functions of computer in each category 2.7. appreciate the use of computers and its application in the society	Students participation in question and answer activity facilitated by teacher Video Reviews Group dynamics Individual Hands-on Performance Demonstration	Rubrics of class participation accomplished by professor. Presentation of outputs Rubrics for Hands on Performance	a, b,d	a, b	Value of Unity and Cooperation Value of participation Value of Respect

<p>users, mobile users, power users, and enterprise users each interact with computers</p> <p>2.8. Discuss how society uses computers in education, finance, government, health care, science, publishing, travel, and manufacturing</p>					
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CHAPTER 2: FUNDAMENTALS OF THE WORLD WIDE WEB AND INTERNET (6 HOURS)

<p>At the end of the lesson the student can:</p> <p>3.1. Identify and briefly describe various broadband Internet connections</p> <p>3.2. Describe the types of Internet access providers</p> <p>3.3. Explain the purpose of a Web browser and identify the components of a Web address</p> <p>3.4. Describe how to use a search engine to search for information on the Web</p>	<p>The student can:</p> <p>3.1. explain what is a Word Processing Software</p> <p>3.2. explain MS Word as an example of a Word Processing Software</p> <p>3.3. identify the features and parts of MS Word 2007 Environment</p> <p>3.4. perform and apply functionalities of the different commands for the different tabs of the MS Word 2007.</p> <p>3.5. perform laboratory</p>	<p>Students' participation in question and answer activity facilitated by teacher</p> <p>Individual Hands-on Performance</p> <p>Demonstration</p> <p>Peer Tutoring</p>	<p>Presentation of outputs</p> <p>Rubrics for Hands on Performance</p>	<p>c, d, e</p>	<p>a, b, c,</p> <p>Value of Participation</p> <p>Value of Patience and Respect</p> <p>Value of Hard work</p> <p>Creativity</p>
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<p>3.5. Describe the types of Web sites</p> <p>3.6. Recognize how Web pages use graphics, animation, audio, video, virtual reality, and plug-ins</p> <p>3.7. Identify the steps required for Web publishing</p> <p>3.8. Explain how e-mail, mailing lists, instant messaging, chat rooms, VoIP, FTP, and newsgroups and message boards work</p> <p>3.9. Identify the rules of netiquette</p>	<p>works utilizing the different commands from the different tabs of the MS Word 2007.</p>				
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CHAPTER 3: APPLICATION SOFTWARE (6 HOURS)

<p>At the end of the lesson the student can:</p> <p>4.1. Identify the four categories of application software</p> <p>4.2. Identify the key features of widely used business</p>	<p>The student can:</p> <p>4.1. appreciate the use of Microsoft Publisher</p> <p>4.2. create their own certificate and other</p>	<p>Students participation in question and answer activity facilitated by teacher</p>	<p>Presentation of outputs Rubrics for hands on performance</p>	<p>c, d, e</p>	<p>a, b, c</p>	<p>Value of participation Value of Hard work</p>
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4.3. identify the key features of widely used graphics and multimedia programs 4.4. identify the key features of widely used home, personal and educational programs 4.5. discuss web applications 4.6. identify the types of application software used in communications 4.7. describe the learning aids available for application software	types of publication	Individual hands on activities Peer Turoing				Patience Creativity
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CHAPTER 5: COMPONENTS OF SYSTEM UNIT COMPONENTS (4 HOURS)

At the end of the lesson the student can: 5.1. Differentiate among the various styles of system units on desktop, computers, notebook computers, and mobile devices 5.2. Describe the control unit and arithmetic logic unit component of a processor, and explain the four steps in a machine cycle 5.3. Differentiate among the	The students can: 5.1. explain what is a Presentation Graphics Software 5.2. explain MS PowerPoint as an example of a Presentation Graphics Software 5.3. identify the features and parts of MS PowerPoint 2007 Environment 5.4. perform and apply functionalities of the	Students participation in question and answer activity facilitated by teacher Individual Hands on Performance Peer tutoring	Presentation of outputs Rubrics for Hands on Performance	c, d, e	a, b, c,	Value of Participation Value of patience and respect Value of Hard work Creativity
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<p>various types of memory</p> <p>5.4. Describe the purpose and types of expansion slots and adapter cards</p> <p>5.5. Differentiate between a port and a connector, and explain the differences among a USB port and other ports</p> <p>5.6. Describe the types of buses in a computer</p> <p>5.7. Understand how to clean a system unit on a computer or mobile device</p>	<p>different commands for the different tabs of the MS PowerPoint 2007.</p> <p>5.5. perform laboratory works utilizing the different commands from the different tabs of the MS PowerPoint 2007.</p>				
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TOPIC 5: UNDERSTANDING INPUT AND OUTPUT (4 HOURS)

<p>At the end of the lesson the student can:</p> <p>6.1. Identify the keys and buttons commonly found on desktop, computer keyboards, and describe how keyboards for mobile computers and devices differ from desktop computer keyboards</p> <p>6.2. Describe different mouse types</p> <p>6.3. Describe various types of touch screens and explain how a touch – sensitive pad works.</p> <p>6.4. Explain other types of</p>	<p>Students can:</p> <p>6.1. explain what is a Word Processing Software</p> <p>6.2. explain MS Word as an example of a Word Processing Software</p> <p>6.3. identify the features and parts of MS Word 2007 Environment</p> <p>6.4. perform and apply functionalities of the different commands for the different tabs of the MS Word 2007.</p> <p>6.5. perform laboratory works utilizing the</p>	<p>Students participation in question and answer activity facilitated by teacher</p> <p>Individual Hands on Performance</p>	<p>Presentation of outputs</p> <p>Rubrics for Hands on Performance</p>	<p>c, d, e</p>	<p>a, b, c,</p>	<p>Value of Participation Value of patience and respect Value of Hard work Patience Creativity</p>
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<p>input including various game controllers, other input for smart phones, how resolution affects the quality of a picture captured on digital cameras, voice and video input, scanners and reading devices, various biometric devices, and terminals</p> <p>6.5. Explain the characteristics of LCD monitors, LCD screens, and CRT monitors</p> <p>6.6. Summarize the various types of printers</p> <p>6.7. Identify the purpose and features of input / output devices</p> <p>6.8. Identify input and output options for physically challenged users</p>	<p>different commands from the different tabs of the MS Excel 2007</p>				
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CHAPTER 6. STORAGE (6 HOURS)

<p>At the end of the lesson the student can:</p> <p>7.1. describe the characteristics of an internal hard disks</p> <p>7.2. discuss the purpose of network attached storage devices</p> <p>7.3. describe the various</p>	<p>The student can:</p> <p>7.1. explain what is video and audio editing software</p> <p>7.2. appreciate the different command and features of video and audio software</p>	<p>Individual Hands on Exam</p> <p>Group Project (Music Video)</p> <p>Team teaching</p>	<p>Rubrics for the Music Video Presentation of Output</p>	<p>a,b,c,d,e</p>	<p>a,b,d</p>	<p>Value of patience and respect Value of Hard work</p>
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types of flash memory storage 7.4. describe cloud storage and explain its advantages 7.5. describe the characteristics of optical discs 7.6. differentiate among the various types of storage 7.7. identify the uses of different types of storage	7.3. perform laboratory works utilizing the different commands					Value of participation Creativity
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CHAPTER 7: TYPES OF UTILITY PROGRAMS AND OPERATING SYSTEMS (6 HOURS)

At the end of the lesson the student can: 8.1. define system software and identify the two types of system software 8.2. summarize the features of several stand-alone operating systems: Windows, Mac OS, UNIX, Linux 8.3. identify various server operating systems	The student can: 8.1 define system software; 8.2 accurately identify and differentiate between the two primary types of system software 8.3 summarize the key features of Windows Operating system, MacOS, Linux and UNIX 8.4 Compare and contrast the features of Windows, MacOS, UNIX and LINUX 8.5 identify the list various common server operating systems 8.6 describe the primary purpose of server	Quizzes Short Answer Questions Classification Exercise Short Essay Scenario – based questions Oral Activity	Student response on the quizzed and short answer questions Correct Categorization of software in the classification exercise Well – written essay Logical and justified recommendation in scenario-based questions Active Participation	a,b,c,d,e	a,b,d	
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8.4. briefly describe several embedded operating systems 8.5. explain the purpose of several utility programs	operating systems. 8.7 explain the unique characteristics of embedded operating system 8.8 define utility programs 8.9 explain the specific purpose and functions of several common utility programs 8.9. provide examples of tasks that utility programs perform				
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TOPIC 8: NETWORKS AND COMMUNICATIONS (6 HOURS)

At the end of the lesson the student can: 9.1. discuss the purpose of the components required for successful communications 9.2. describe the uses of computer communications 9.3. differentiate among different types of networks: LANs, MANs, WANs 9.4. explain the purpose of communications software 9.5. describe various types of lines for communications over the telephone network	9.1 identify and explain the purpose of the essential components (sender, receiver, transmission medium, protocol) required for successful communication 9.2 describe the various applications and uses of computer communications in personal, and societal contexts 9.3 differentiate between Local Area Networks (LAN), Metropolitan Area Network (MAN),	Diagram labelling Short Answer questions Scenario Analysis Case Study Analysis Class Discussions	Accurate labelling of communication model components Clear and concise explanations Correct identification of components in scenario analysis Case Studies	a,b,c,d,e	a,b,d	
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<p>9.6. describe commonly used communications devices</p> <p>9.7. discuss different ways to set up a home network</p> <p>9.8. describe various physical and wireless transmission media</p>	<p>and Wide Area Network (WANs) based on their characteristics and scope</p> <p>9.4 explain the role and functions of communication software in enabling network communication</p> <p>9.5 describe different types of communication lines used for transmitting data over the telephone network</p> <p>9.6 identify and describe the functions of commonly used communication devices (ex. Modems, routers, switches)</p> <p>9.7 discuss various methods for setting up a home network, including hardware and configuration considerations</p> <p>9.8 describe various physical and wireless transmission media used in computer communication</p>					
TOPIC 9: NUMBER SYSTEMS (6 HOURS)						
At the end of the lesson the student can:						

10.1 Define and explain the concepts of different number systems (binary, decimal, octal and Hexadecimal)	10.1 discuss the concepts of different number systems (binary, octal and hexadecimal)	Written Quizzes	Quiz Test Scores			
10.2 Identify the base (radix) of each number system	10.2 explain the base of each number system	Board Work	Graded Board Work			
10.3 Explain the positional notation used in each number system	10.3 illustrate and discuss the positional notation in each number system	Class Participation and discussion	Observation and Class Participation			
10.4 Convert Between number system	10.4 accurately perform conversion between number system					
	Lecture	50 hours				
	Exam	4 hours				
	Total Contact Hours	94 hours				

8. COURSE EVALUATION

Course Requirements : 100% laboratory works output
 Music Video Presentation
 E-waste Project

Grading System:

MIDTERM		FINAL TERM	
Exam	- 50%	Exam	- 50%
Project	- 30%	Projects	- 40%
Quizzes / Ass / Att.	- 20%	Quizzes / Ass / Att.	- 20%
TOTAL	100%	TOTAL	100%

$$\text{MTG}+\text{FTG}/2=\text{FG}$$

Schedule of Examination:

Midterm	- October 17 – 19, 2024
Final Term	- December 11 – 13, 2024
Classes End	- December 13, 2024

REFERENCES:

Textbooks

- O'leary, T. J., & O'leary, L. I. (2011). Computing Essentials 2011: Making IT Work for you. Philippines: McGraw HILL.
- Shelly, G. B., & Vermaat, M. E. (2012). Microsoft Word, Excel, PowerPoint 2010. Philippines: Cengage Learning Asia Pte Ltd.
- Shelly, G. B., Vermaat, M. E., Parsons, J. J., Oja, D., & Mulder, D. (2013). Complete Office Premiere. Philippines: Cengage Learning Asia Pte Ltd.
- Stair, R. M., & Reynolds, G. (2012). Information System Essentials, 6th edition. Philippines: Cengage Learning Asia Pte Ltd.

Supplemental

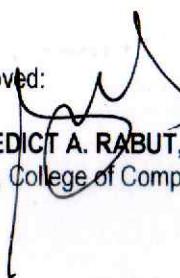
- Advanced Excel: Simply Easy and Learning. (2017, July Wednesday). Retrieved from https://www.tutorialspoint.com/advanced_excel/advanced_excel_tutorial.pdf
- Dachis, A. (2017, July Wednesday). Retrieved from Basic of Video Editing Notes: http://toasterdog.com/files/basics_of_video_editing_notes.pdf
- Guide to Windows Movie Maker. (2017, July Wednesday). Retrieved from lib.ncsu.edu: <https://www.lib.ncsu.edu/documents/digitalmedia/GuidetoWindowsMovieMaker.pdf>
- Introduction to Publisher 2010 Tutorial. (2017, July Wednesday). Retrieved from <https://www.computer-pdf.com/get-213>
- PowerPoint 2010 Advanced Best STL Training Manual. (2017, July Wednesday). Retrieved from microsofttraining.net : <https://www.microsofttraining.net/download/manuals/Word-2010-Advanced-Best-STL-Training-Manual.pdf>
- Word 2010 advanced Best STL Training Manual. (2017, July Wednesday). Retrieved from microsofttraining.net: <https://www.microsofttraining.net/download/manuals/Word-2010-Advanced-Best-STL-Training-Manual.pdf>

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