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Course No : C-HE 01/C-MM 01/TE 504/CS 508/TE 03
Descriptive Title : Digital Technology Application in Education/Digital Tools in Management/Basic Computer System
Credit : 3 Units
Time Frame : 50 hrs.
Dates of Classes : August 10, 17,24, 31; Sept. 7, 14, 21, 28; October 5, 12, 2024
Professor : Janet A Orioque, Ph.D

I. INSTITUTIONAL OUTCOMES



VISION : A PREMIER POLYTECHNIC STATE UNIVERSITY

MISSION : To strengthen its capacity of producing highly skilled, competent and world class human resources, responsible to fulfil stakeholder needs, goals of the national development and ASEAN integration, for the attainment of a quality of life with the guidance and providence of God.

GOAL : Make PIT a premier polytechnic educational institution where students are trained to excel in their areas of specialization through quality instruction, product-based research, need-driven extension and accessible production programs for a heightened socio-economic development and improved quality life in a fast-changing society.

CORE VALUES:

1. Excellence
2. Integrity
3. Creativity
4. Commitment

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5. Institutional Social Responsibility

6. Exceeding Expectation

II. COLLEGE OUTCOMES

GOAL



Produce globally competitive graduates trained to excel in their field of specialization through quality and excellence, relevance and responsiveness, access and equity, and efficiency and effectiveness with high moral values, ethical standards and personal discipline.

OBJECTIVES

1. Address the highly competitive and fast changing demands for effective and quality advanced education programs through competent leadership and governance.
2. Develop a strong research culture for the improvement of curriculum and instruction and utilization for extension and community service.
3. Strengthen and add forces along instruction, research extension and production through a high degree of faculty commitment and distinctive competence.
4. Provide the students with opportunities and challenges for advancement of knowledge, skills and competencies in order to become more professionalized in their respective field.
5. Establish linkages with institutions, departments, offices, GO's, PO's, and NGO's to further a collaborative partnership in the attainment of goals and values.
6. Inculcate good moral values, work ethics, personal discipline and aesthetic development, and foster an appreciation for one's cultural heritage and environment preservation through creative and innovative strategies and programs.

III. COURSE OUTCOMES OF THE MASTERAL PROGRAMS

After the completion of the course, the graduate students:

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1. Applied advanced knowledge, professional skills, and competencies in the practice of teaching in the elementary education in a befitting, responsible, and critical manner;
2. Conduct relevant and productive researches and extension service attuned to the current needs and demands of the educational system, technology, and the society;
3. Create a lifelong learning with a highly substantial degree of independence that involves individual work or teams of interdisciplinary experts;
4. Demonstrate and maintain personal discipline, ethical values and standards in the different aspects of the educational process; and
5. Applied their intellectual capacity to support the national, regional and local development plans.



IV. COURSE DESCRIPTION

This course is an overview of computer hardware, software, and applications in management/education. Emphasis is placed on literacy and extensive hands-on computer experience. The course also includes an introduction to mini-and micro-computers, file management, and common types of microcomputer software packages-word processing, spreadsheet, presentation software, database and business-oriented utilization of the internet.

V. COURSE OUTCOMES

After the completion of this course, the graduate students:

1. Describe the evolution, characteristic and components of the Computer System;
2. Differentiate the Computer Hardware and Software functions;
3. Demonstrate the Office Application in Education;
4. Apply the different learning management system in the classroom instruction; and
5. Understand Cybersecurity and Internet operation.



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VI. COURSE MAPPING



Course Outcome (CO)	PQF BASED 8 PROGRAM OUTCOME (PO) (CMO 15, s 2019)			
	a	b	c	d
1. Describe the Evolution, Characteristics and Components of the Computer System; 1.3.1	I			
2. Differentiate Computer Hardware and Software functions; 1.3.1	I	P	P	
3. Demonstrate the Office Application in Education; 1.3.3			P	D
4. Apply the different learning management system in the classroom instruction; and 1.3.3			P	D
5. Understand Cybersecurity and Internet operation. 1.3.1	I			

VII. COURSE OUTLINE



Outcomes / Competence	Knowledge, Understanding & Proficiency (KUP)	Performance / Teaching-Learning Activities	Time Frame (in hours)	Learning Materials/Resources	Assessment Scheme (OBA)
After the course orientation, the students demonstrate understanding of the institutional/ college/program/course outcomes, course requirements, evaluative measures, and policies.	Orientation / presentation of course syllabus - The institute mission & vision - College, program & course outcomes - Course plan/outline	Orienting the students with the institute vision, mission; college, program, & course outcomes; course descriptions, course plan, content, & requirements, etc.	2	Course Syllabus CAEd Manual of Academic Regulations Via Virtual Orientation using google meet/zoom.	Free writing activities about students' comments on various course outcomes, expectations & apprehensions via google classroom

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<p>Informed about the policies and provisions on gender awareness and development, disaster and risk preparedness, PAG-ASA and PHIVOLCS information guide.</p> <p>Values: Developed appreciation and commitment to the attainment of PIT VMGO</p>	<p>Orientation of other Policies on:</p> <ul style="list-style-type: none"> - Gender Awareness and Development - Disaster and Risk Preparedness -PAG-ASA - PHIVOLCS 	<ul style="list-style-type: none"> - Brainstorming - Q and A - Read and critically analyze the PIT VMGO and other Policies: - Focus Questions <ul style="list-style-type: none"> ➤ What something novel and unique can you do to successfully attain the PIT Vision and Mission? ➤ With PIT vision and mission can you explore possibilities to learn to be the best person you can ever become? How? Explain. 	<p>Class List</p> <p>Policies on Gender Awareness and Development and Risk Preparedness, Phivolcs</p>	<p>Reaction on the VMGP of PIT</p>
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<p>After completing the unit the students should be able to:</p> <ul style="list-style-type: none"> - Understand the evolution, character, classification of the computers; - Discuss the architectural design, components of the computers; - Identify the different I/O Devices, computer memory of the computers. (1.3.3) 	I. Introduction to Computer Systems <ul style="list-style-type: none"> ✓ Introduction; ✓ Evolution of Computers; ✓ Characteristics; ✓ Classification Generations; ✓ Computer Architecture; ✓ Components of Computer Systems; ✓ I/O Devices); ✓ Computer Memory; ✓ Data Representation. 	<p>Virtual discussion via Google meet/zoom/fb messenger</p> <p>Focus topics</p> <p>Lecture-Discussion</p> <p>video Viewing</p> <p>Feedback via virtual forum using google meet/fb messenger</p>	8	<p>-Video viewing about Computer System</p> <p>-Module on Computer Evolution, Components and classification of Computer System</p>	<p>50 pts. Scoring criteria in rating on write-up.</p> <p>Learning Task 1:</p> <p>Give your personal inputs on the following:</p> <ol style="list-style-type: none"> 1.What are your thoughts about the evolution of computer? 2. How it affects (a) your life and (b) your profession? <p>Learning Task 2:</p> <p>Read the lesson 2 module (Classification of Computer System) and watch the video uploaded in the Google Classroom and then answer the quiz via Google form</p>
<ul style="list-style-type: none"> - Familiarize with computer hardware, software, and applications; - Identify the major roles of Operating Systems and Systems Software; 	II. Computer Software <ul style="list-style-type: none"> ✓ Introduction to Software; ✓ Relation Between Hardware and Software; 	<p>Virtual discussion via Google Meet</p>	9	<p>- PPT presentation on Computer Software</p>	<p>50 points scoring criteria in rating on the write-up:</p>

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<ul style="list-style-type: none"> - Describe the Software Development Life Cycle; - Able to use the different algorithm and flow chart in a certain situation. (1.3.3) 	<ul style="list-style-type: none"> ✓ Types of Software: System Software, Application Software; ✓ Social Media platform used for video conferencing. 	<p>Feedback via virtual forum using google meet/fb messenger</p> <p>Focus Discussion</p> <p>Lecture-Discussion</p> <p>Oral Recitation</p> <p>Q and A</p>		<p>-Video viewing about the components of the components of the computer hardware and types of software.</p>	<p>Learning Task:</p> <p>1. Describe the functions of each component (motherboard, COPU, RAM, ROM, Storage devices, Graphics Card and Peripherals)</p> <p>2. Differentiate the functions of Computer Hardware and Software</p>
<ul style="list-style-type: none"> - Demonstrate the different office application; - Understand Ms-Word, Ms-Excel and MS-Powerpoint; - Demonstrate the google workspace; (1.3.3) 	<p>III. Office Application</p> <ul style="list-style-type: none"> ✓ MS-Word; ✓ MS-Excel; ✓ MS-Powerpoint; ✓ Google Workspace such as google sheets, google drive, google forms, google slides, google docs; 	<ul style="list-style-type: none"> - Individual presentation on the assigned topics via Google Meet - Professor-led discussion method - Brain Storming - Demonstration of the Google Workspace and MS-OFFICE 	9	<p>-PPT presentation of the office application and demonstration of the different application in the Google Workspace and MS Office</p>	<p>Learning Task: 30 points criteria in rating below:</p> <p>Activity: Inserting citation and Bibliography (uploaded in the Google Classroom)</p> <p>Instruction: Encode the given write-ups and when you encounter a line insert the citation (the detail content of</p>

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					the citation is written based on the number given) and then follow the steps to insert citation and bibliography.
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Midterm Examination: 2 hours: Research Paper Review (50 points criteria in rating)



Instructions: Search a recent article in the Google Scholar that talks on MS-Office or Google Workspace Application in Education and answer the following:

1. What is the Title of the Study?
2. Who is/are the author/s?
3. What is the research gap of the study?
4. What is the research design and statistical tool used?
5. What is the contribution of the study to the body of knowledge?

<ul style="list-style-type: none"> - understand the definition of database; - Create spreadsheets and charts to analyze, investigate and/or interpret data to support the problem-solving process; - Understand the database management system. (1.3.3) 	IV. Learning Management System <ul style="list-style-type: none"> ✓ What is Learning Management System; ✓ Types of Learning Management System; ✓ Moodle; ✓ Google Classroom; ✓ Schoology; ✓ Edmodo; ✓ Blackboard. 	<ul style="list-style-type: none"> - Individual presentation via google meet - Utilizing Google forms for quiz - Demonstration - Using google classroom for uploading of lessons, assignments and activities 	9	PPT presentation about learning management system and different platforms of LMS online	Learning Task: Research Finding Review 30 points criteria in rating. Instruction: Search in the Google Scholar about Learning Management System (LMS) or LMS platform such as Moodle, Google Classroom, Schoology,
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					Blackboard, etc. Write only the abstract of the article, including the author and keywords.
<ul style="list-style-type: none"> - Understand the History of Internet; - Identify the usage of World Wide Web; - Compare the advantages and disadvantage of cloud computing; - Enumerate the different types of computer networks. (1.3.3) 	V. Internet Operation <ul style="list-style-type: none"> ✓ History of Internet; ✓ World Wide Web; ✓ Cloud computing; ✓ Computer Networks; 	Feedback via virtual forum using google meet/fb messenger Focus Discussion Lecture-Discussion Oral Recitation Q and A	9	PPT presentation about Internet operation, World Wide Web, Computer Networks and Cloud Computing.	20 points criteria of rating for oral recitation about internet operation, world wide web, cloud computing and computer networks
<ul style="list-style-type: none"> - Define cybersecurity; - identify security threats and symptoms of Malware infection; - enumerate the types of hacker and malware; - understand the symptoms of malware infection. 	VI. Cyber Security <ul style="list-style-type: none"> ✓ Background; ✓ Significant Cyber Attack Worldwide; ✓ Internet versus web; ✓ Threat ✓ Risk ✓ What is cybersecurity? ✓ Application security ✓ Information Security 	Individual presentation via google meet Interactive lecture-discussion via google meet Interactive discussion	5	PPT presentation about Cyber Security and video viewing on the different cyber-attacks worldwide.	Reaction paper about cyber security

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	✓ Network security ✓ Types of Hacker ✓ Types of Malware ✓ Symptoms of Malware infection	Using google classroom for uploading of lessons, assignments and activities			
Final Examination: 2 hours Instruction: Answer the following comprehensively and diligently in your own point of view. 1. Are computer, cell phones, and other electronic devices bad for our health? You may have heard the term electromagnetic radiation and dismissed it as an obscure scientific term not worth understanding. List some of the pros and cons of a “paperless” environment. Do you believe that a paperless environment is something worth striving for in the workplace? In the home? In the classroom? (30 Points) 2. What are the types of cybersecurity? Give one cyberattack in the Philippines and what type of cybersecurity would be implemented to prevent that situation to happen. (20 points) 3. What is Learning Management System? Give 3 commonly used learning management system and discuss the advantages and disadvantages of using it in the classroom. (10 points) 4. Differentiate Internet and World Wide Web and discuss the benefits they provide in our lives and work place (20 points) 5. What is Google Workspace? Which among the Google apps that you used daily? What is the advantage of using it compared to other application? (20 points)					
TOTAL			50 hours		

VIII. AUTHENTIC ASSESSMENTS TOOL

Scoring Criteria in Rating for Midterm Requirement

In-depth presentation of data	-	40 points
Completeness of the data	-	25 points
Prompt submission	-	<u>10 points</u>
		75 points

Scoring Criteria for Rating Individual Presentation

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- | | | |
|---|---|-----------|
| a. Content related behavior pertains to mastery of the subject matter | - | 25 points |
| b. Instruction related behavior pertains to the method/strategy including Effective communication and alertness to answer questions | - | 20 points |
| c. Climate related behavior concerns with physical and socio emotional stability. | - | 15 points |
| d. Self-bearing and overall behavior refers to the reporter's personality, preparation of relevant IMS, and creative presentation | - | 10 points |

Rating Scale for Synthesis



- | | | |
|-------------------|---|------------|
| Very complete | - | 100 points |
| Complete | - | 80 points |
| Somewhat complete | - | 60 points |

Scoring Criteria for rating student's written report paper/reaction paper

- | | | |
|---|---|------------------|
| a. Integration of the main concept with the needs of the profession, needs of the country & recent global trends and values | - | 20 points |
| b. Substance and Organization of Ideas | - | 15 points |
| c. Citations of authorities and relevant supporting theories, related literature, and studies | - | 10 points |
| d. Recency of references and Prompt submission | - | <u>5 points</u> |
| Total | | 50 points |

Rating Scale for Learning Task

50 points – if the task required is worked-out and properly answered with relevant supporting research article and explanation

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40 points – if the task required is worked-out and properly answered with some supporting research article and explanation
30 points – if the task required is worked-out and partially answered with supporting research article and explanation
20 points – if the task required is worked-out and answered without supporting research article and explanation
10 points – if the task required is not worked-out



IX. COURSE REQUIREMENTS & EVALUATIVE MEASURES

Term Examinations (Midterm/Final)	-	20%
Individual Presentation and Attendance (80%)	-	20%
Learning Task	-	<u>60%</u>
		100%

X. REFERENCES


Books, e-books, Journal, modules, websites, online article, etc.

1. B.Ram, Computer Fundamentals. New Age Int.
2. Data Communication & Computer Network by White, Publisher: Thomas Learning, Bombay
3. P.K Sinha, Priti Sinha. Computer Fundamentals. Publisher Kalyani Publishers, 2nd Edition.
4. Fundamentals of Computers by Rajaraman, Publisher: Prentice Hall of India, New Delhi
5. Business Data Communication by Shelly, Publisher: Thomson Learning, Bombay


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6. Introduction to Computer Systems Module by: Orioque, J.A.
7. Papadakis, S., Kravtsov, H. M., Osadchyi, V. V., Marienko, M. V., Pinchuk, O. P., Shyshkina, M. P., ... & Striuk, A. M. (2023). Revolutionizing education: using computer simulation and cloud-based smart technology to facilitate successful open learning.
8. Cao, W., & Yu, Z. (2023). The impact of augmented reality on student attitudes, motivation, and learning achievements—a meta-analysis (2016–2023). *Humanities and Social Sciences Communications*, 10(1), 1-12.
9. Montenegro-Rueda, M., Fernández-Cerero, J., Fernández-Batanero, J. M., & López-Meneses, E. (2023). Impact of the implementation of ChatGPT in education: A systematic review. *Computers*, 12(8), 153.
10. Wu, J. (2024). E-learning management systems in higher education: Features of the application at a Chinese vs. European university. *Journal of the Knowledge Economy*, 1-31.
11. Badshah, A., Ghani, A., Daud, A., Jalal, A., Bilal, M., & Crowcroft, J. (2023). Towards smart education through internet of things: A survey. *ACM Computing Surveys*, 56(2), 1-33.
12. Siphambili, N. (2024, June). Exploring Cybersecurity Implications in Higher Education. In *European Conference on Cyber Warfare and Security* (Vol. 23, No. 1, pp. 526-531).

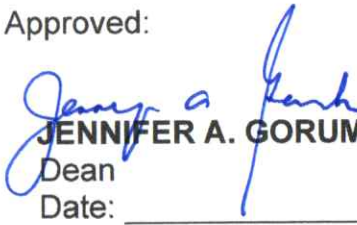
Prepared by:




JANET A. ORIOQUE
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 Date: _____

Reviewed by:


JANET A. ORIOQUE
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 Date: _____

Approved:


JENNIFER A. GORUMBA
 Dean
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N.B.: Please write your comments and suggestions to further improve and enrich the course/subject:

- 1.
- 2.
- 3.