VISION

Mapúa University, a global leader in education, shall foster sustainable socio-economic growth in society through innovation, digital transformation, and lifelong education.

MISSION

1. The University shall provide a learning environment in order for its students to acquire the attributes that will make them globally competitive.
2. The University shall engage in publishable and/or economically viable research, development, and innovation.
3. The University shall provide state-of-the-art solutions to problems of industries and communities.

COURSE SYLLABUS

1. **Course Code: CPE172P-4**
2. **Course Title: Cybersecurity and Cyberspace – An Introduction**
3. **Prerequisite: 3rd year standing**
4. **Co-Requisite: None**
5. **Credit: 3 units / 5.50 hours per week**
6. **Course Description:** Covers foundational knowledge and essential skills for all cybersecurity domains including information security, systems security, network security, ethics and laws, and defense and mitigation techniques used to protect businesses.
7. **Course Outcomes (COs)**

After completing the course, the student must demonstrate the following outcomes:

1. Understand the players in the cybersecurity world and the motivation of cyber criminals and cybersecurity specialists.
2. Build skills in security management, controls, protection, and mitigation technologies.
3. Apply knowledge in Linux as it is used in cybersecurity to carry out system penetration testing and assess the vulnerability of a system.

8. **Design of Outcome-Based Modular Content**

Course Title	Credit Units	Module Code	Module Title	Lec Hrs.	Lab Hrs.	Weeks
Cybersecurity and Cyberspace – An Introduction	3	1	Cybersecurity: A World of Experts and Criminals	11.65	17.5	5
		2	The Art of Protecting Secrets and Ensuring Integrity	11.65	17.5	5
		3	Linux Unhatched	9.32	14	4

9. Course Coverage

CO	Week	Topic	TLA	AT	Tech, Tools, and /or Micro-credentialing Requirements
CO1	1	Orientation and Introduction to the Course Introduction to Cybersecurity	**Lecture/Discussion**		CISCO NETACAD **Introduction to Cybersecurity** Course Materials and Learning Resources
	2	Network Security Part 1	Reading Tasks Supplementary Materials		CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	3	Network Security Part 2	**Lecture/Discussion,** Reading Tasks Supplementary Materials		CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	4	OS and Endpoint Security	**Lecture / Discussion**	**CW1**	CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	5	Principles, Practices and Processes of Network Defense	**Lecture/Discussion,** Reading Tasks Supplementary Materials	**LQ1** **SE1**	CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
CO2	6	Firewalls, Cryptography and Cloud Security Part 1	**Lecture/Discussion,** Reading Tasks Supplementary Materials		CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	7	Firewalls, Cryptography and Cloud Security Part 2	**Lecture/Discussion,** Reading Tasks Supplementary Materials		CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	8	Evaluating Security Alerts	**Lecture/Discussion,** Reading Tasks Supplementary Materials		CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	9	Vulnerability Assessment and Risk Management	**Lecture/Discussion,** Reading Tasks Supplementary Materials	**CW2**	CISCO NETACAD **Cybersecurity Essentials** Course Materials and Learning Resources
	10	Incident Response	**Lecture/Discussion,** Reading Tasks Supplementary Materials	**LQ2** **SE2**	CISCO NETACAD **Linux Unhatched** Course Materials and Learning Resources

CO	Week	Topic	TLA	AT	Tech, Tools, and /or Micro-credentialing Requirements
CO3	**11**	Basic Linux Command Line Interface in gaining administrative access and commands	**Lecture/Discussion,** Reading Tasks Supplementary Materials		CISCO NETACAD **Linux Unhatched** Course Materials and Learning Resources
	12	Basic Linux Command Line Interface in filtering input, regular expressions and basic patterns	**Lecture/Discussion**		CISCO NETACAD **Linux Unhatched** Course Materials and Learning Resources
	13	Basic Linux Command Line Interface in using text editors and input/output redirection	**Lecture/Discussion**	**CW3 LQ3**	CISCO NETACAD **Linux Unhatched** Course Materials and Learning Resources
	14	**Final Examination**		**SE3**	

10. Lifelong Learning Opportunities

Explains the significance of the role of cyber criminals and their motivations and how to become a cybersecurity specialist who helps defeat the cyber criminals that threaten the cyber world.

11. Contribution of the Course to Meeting the Professional Component

Engineering Topics – 100%

12. Prescribed E-book and/or Courseware

A. Cisco Networking Academy – NetAcad

i. Introduction to Cybersecurity
ii. Cybersecurity Essentials
iii. Linux Unhatched

13. Other References and Educational Resources

A. METIS (Mapua E-Text Infinity Solutions)

B. Others

14. Course Evaluation

Student performance will be rated based on the following:

Assessment Tasks		Weight	Minimum Average for Satisfactory Performance
CO1 CO2 CO3	Course Work	30%	21%
	NetAcad Exams	10%	7%
	Long Quiz	30%	21%
	Skills Exam/Project	30%	21%
Total		**100%**	**70%**

The final grade will correspond to the weighted average scores shown below:

Average	Final Grade	Average	Final Grade
0.00 – 69.99	5.00	82.00 – 84.99	2.00
70.00 – 72.99	3.00	85.00 – 87.99	1.75
73.00 – 75.99	2.75	88.00 – 91.99	1.50
76.00 – 78.99	2.50	92.00 – 95.99	1.25
79.00 – 81.99	2.25	96.00 - 100.00	1.00
For approved medical reasons only		I	

15. Policy on the Use of AI Tools and Technologies

It is expected that students will adhere to generally accepted standards of academic honesty, including but not limited to refraining from cheating, plagiarizing, misrepresenting one's work, and/or inappropriately collaborating. This includes the use of generative AI tools that have not been cited or documented or authorized. Students will also be expected to adhere to the prescribed professional and ethical standards of the profession/discipline for which the student is preparing. Any student who engages in academic dishonesty or who violates the professional and ethical standards for the profession/discipline for which the student is preparing, may be subject to academic sanctions as the University's Academic Integrity Policy.

16. Other Course Policies

a. Attendance.
According to CHED policy, the total number of absences by the students should not be more than 20% of the total number of meetings or 10.5 hours for a three-unit-course. Students incurring more than 10.5 hours of unexcused absences automatically get a failing grade regardless of class standing.

b. Guided Learning Output.
Guided learning outputs through various worksheets in each cluster of topics are assigned to the students. Problems encountered in the worksheets will be discussed in class.

c. Written Examination
Exams will be given face to face for Tri-X, Bio-X and Blended modes and online for UOX.

d. Course Portfolio.
Selected guided learning outputs and examinations are to be compiled and collected before the end of the term. The selection is based on statistical data gathering (lowest, median, highest). Guided learning outputs and examinations with marks lowest, median, and highest must be photocopied and must be given back to the instructor for course portfolio keeping.

e. Language of Instruction.
Lectures, discussion, and documentation will be in English. Written and spoken work may receive a lower mark if it is, in the opinion of the instructor, deficient in English.

f. Dress and Grooming Codes.
All of us have been instructed on the Dress and Grooming Codes of the University.

g. Academic Integrity Policy. It is the student's responsibility to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Any of the following sanctions may be imposed to any student who is found guilty of committing online academic dishonesty:

1. Failed mark in the course
2. Suspension for a period of less than one term, with or without community service
3. Suspension for a period of one term or more, with or without community service
4. Non-readmission to the University
5. Dismissal from the University
6. Expulsion

The following are considered academic dishonesty:

1. Using another MyMapua email address to login to any platform (such as BlackBoard and Coursera) with or without permission. Asking or hiring someone else to do their exams, homework, Coursera course, papers, projects or other academic requirements.
2. Recording and saving copies of exam questions or answers, or answer keys for distribution.
3. Receiving copies of exam questions or answers, or answer keys to an exam from someone who has already taken it.
4. Plagiarizing or the unethical act of stealing the thoughts of another without proper citation or reference, acquiring information from the Internet without acknowledging the author, copying from another student's work without permission and submitting it as own work.
5. Massive, pre-meditated, organized online cheating using instant messaging/email during a quiz or exam.
6. Any form of dishonesty in peer-reviewed assignments/submissions (e.g. Coursera peer-graded submissions).
7. Engaging in any activities that will dishonestly improve results, or dishonestly improve or damage the results of others.
8. Any other form of dishonesty or cheating in any assessment or course requirement.

All students who violate the Academic Integrity Policy of the university will be given zero mark for the exam or for the activity and will be given a failing grade for the course. He or she will also be referred to the Prefect of Discipline for appropriate sanction.

h. Consultation Schedule.
Consultation schedules with the Professor are posted outside the EECE Faculty room and in the School of EECE microsite (http://eece.mapua.edu.ph). On blended and fully online terms, consultations may be done using any of the official communication platforms (Zoom or Microsoft Teams). It is recommended that the student first set an appointment to confirm the instructor's availability

i. Appeal system.
All appeals on student assessment must be made by the concerned student within one week after the return of the assessed student work. In case the student is not satisfied, no later than one week after the decision of the faculty has been made, he can elevate the appeal to the program chair or dean in case there is no program chair. The decision of the program chair or dean is final. The faculty must abide with the moderated decision of the program chair or dean.

17. Course Materials to be Provided to Students

17.1 Syllabus
17.2 Course Schedule
17.3 Lecture Materials

18. Committee Members

Caya, Meo Vincent C.
Cruz, John Paul T.
Lee, Marvin V.
Padilla, Dionis A.
Singson, Lowell B.
Sy, Jojo T.
Yumang, Analyn N.