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question	answer	category	difficulty
What is the vision of Mapúa University?	Mapúa shall be among the best universities in the world.	Vision and Mission	Easy

question	answer	category	difficulty
State one mission of Mapúa University related to student development.	The University shall provide a learning environment in order for its students to acquire the attributes that will make them globally competitive.	Vision and Mission	Easy

question	answer	category	difficulty
How does Mapúa University aim to contribute to industries and communities?	The University shall provide state-of-the-art solutions to problems of industries and communities.	Vision and Mission	Easy

question	answer	category	difficulty
What professional skill should a Data Science graduate from Mapúa demonstrate within five years of graduation?	They should have undertaken projects, individually or in teams, that demonstrate their ability to apply analytical and computational skills to solve problems in Data Science and related fields.	Program Educational Objectives	Medium

question	answer	category	difficulty
How should Data Science graduates from Mapúa demonstrate their involvement in impactful projects?	They should have substantial involvement in projects and/or research related endeavors that have a social, economic, and/or environmental impact, in part by adhering to required codes and...	Program Educational Objectives	Medium

question	answer	category	difficulty
Describe one way a Data Science graduate from Mapúa can demonstrate lifelong learning.	They can show progress towards fellowship in accredited Data Science or related societies, either locally or abroad. They could also complete a related advanced degree or acquire relevant...	Program Educational Objectives	Medium

question	answer	category	difficulty
According to ABET, what should a Data Science student be able to do regarding big data problems?	They should be able to analyze big data problems and apply principles of data science and other relevant disciplines to identify solutions.	ABET Student Outcomes	Medium

question	answer	category	difficulty
What does ABET expect from Data Science students in terms of communication?	They should be able to communicate effectively in a variety of professional contexts.	ABET Student Outcomes	Medium

question	answer	category	difficulty
How does the course DS 168 approach the teaching of machine learning?	It covers three general approaches: classification, clustering, and association rules.	Course Syllabus	Easy

question	answer	category	difficulty
What is the prerequisite for DS 168?	There are no prerequisites for DS 168.	Course Syllabus	Easy

question	answer	category	difficulty
What is the co-requisite for DS 168?	The co-requisite is DS 165L.	Course Syllabus	Easy

question	answer	category	difficulty
What is the credit value of DS 168?	DS 168 is worth 2 units.	Course Syllabus	Easy

question	answer	category	difficulty
What learning activity is typically associated with the 'Guided Notebook' teaching approach in DS 168?	Independent learning.	Teaching and Learning Activities	Medium

question	answer	category	difficulty
Which assessment method contributes the most to the final grade in Module 1 of DS 168?	Homework/Problem Sets (60%).	Course Evaluation	Medium

question	answer	category	difficulty
What is the minimum weighted average score (WAS) needed to achieve a module grade of 2.00 in DS 168?	83.00	Grading System	Medium

question	answer	category	difficulty
Under what circumstances would a student receive a grade of '5.0' in DS 168?	Multiple reasons, including poor performance, stopping attendance without officially withdrawing, excessive absences, not completing over 50% of course requirements, or violating the...	Grading System	Hard

question	answer	category	difficulty
How are appeals on student assessment handled in DS 168?	Appeals must be made within one week of receiving the assessed work. If unsatisfied with the faculty's decision, the student can elevate the appeal to the department chair within one week....	Course Policies	Hard

question	answer	category	difficulty
Explain one form of academic dishonesty related to online learning platforms as outlined in DS 168.	Using another MyMapua email address to log in to any platform (e.g., BlackBoard, Coursera) without permission.	Academic Integrity	Medium

question	answer	category	difficulty
What is the potential consequence for a student found guilty of violating the Academic Integrity Policy in DS 168?	They may receive a grade of 5.0 for the course and be referred to the Prefect of Discipline for further sanctions.	Academic Integrity	Medium

question	answer	category	difficulty
If a student has questions about a specific topic in DS 168, how are they encouraged to seek clarification?	They can seek clarification during class or through student consultation with the Professor.	Course Policies	Easy

question	answer	category	difficulty
What is the purpose of the course portfolio in DS 168?	It serves as a collection of selected guided learning outputs and examinations, showcasing the student's understanding and progress throughout the course.	Course Policies	Medium

question	answer	category	difficulty
How does DS 168 address the possibility of language barriers in learning?	While the language of instruction is English, written and spoken work that is deficient in English, as judged by the instructor, may receive a lower mark.	Course Policies	Medium

question	answer	category	difficulty
Describe the role of data augmentation in the context of building predictive models.	Data augmentation is a technique used to increase the size and diversity of a training dataset by creating modified versions of existing data. This can help to improve the generalization ability of...	Data Science Concepts	Medium

question	answer	category	difficulty
Explain the difference between supervised and unsupervised learning in machine learning.	Supervised learning involves training a model on a labeled dataset, where each data point is associated with a known output or target variable. The goal is to learn a mapping function that can...	Machine Learning Concepts	Medium

question	answer	category	difficulty
What are the three main components of a typical machine learning workflow?	1. Data preprocessing: Cleaning, transforming, and preparing the data for model training. 2. Model training: Selecting a suitable algorithm and training it on the prepared data. 3. Model...	Machine Learning Workflow	Medium

question	answer	category	difficulty
Provide an example of how predictive analytics can be used in the business domain.	Predictive analytics can be used in various ways, such as customer churn prediction, fraud detection, inventory optimization, and targeted marketing. For instance, a telecommunications...	Applications of Predictive Analytics	Medium

question	answer	category	difficulty
What are the ethical considerations that should be taken into account when developing and deploying predictive models?	Ethical considerations include fairness, bias detection and mitigation, transparency, accountability, and privacy. For example, it's important to ensure that predictive models do not...	Ethics in Predictive Analytics	Hard

question	answer	category	difficulty
Explain the concept of regularization in machine learning and how it can help prevent overfitting.	Regularization is a technique used to prevent overfitting by adding a penalty term to the loss function that the model is trying to minimize. This penalty term discourages the model from...	Machine Learning Techniques	Hard

question	answer	category	difficulty
What are the advantages and disadvantages of using neural networks for predictive analytics?	Advantages: Can handle complex non-linear relationships, can automatically learn features from data, can achieve high accuracy on certain tasks. Disadvantages: Can be computationally...	Neural Networks	Hard

question	answer	category	difficulty
Describe the concept of cross-validation in machine learning and why it is important.	Cross-validation is a technique used to evaluate the performance of a machine learning model by splitting the data into multiple folds and training the model on different subsets of the...	Model Evaluation	Medium

question	answer	category	difficulty
If a student is experiencing a medical emergency that prevents them from submitting a course requirement in DS 168, what should they do?	They should contact the instructor as soon as possible to explain the situation and provide documentation of the emergency. The instructor will then determine the appropriate course of...	Course Policies	Easy

question	answer	category	difficulty
What is the role of the Cluster CQI Chair in the context of DS 168?	The Cluster CQI Chair is responsible for overseeing the continuous quality improvement (CQI) processes related to the course, ensuring that it meets the standards of the university and...	Course Management	Medium

question	answer	category	difficulty
What is the difference between classification and regression in machine learning?	Classification is a type of supervised learning where the goal is to predict a categorical label or class for a given input. Regression, on the other hand, is a type of supervised learning where...	Machine Learning Concepts	Medium

question	answer	category	difficulty
Explain the concept of a decision tree and how it can be used for classification.	A decision tree is a tree-like model that represents a series of decisions and their possible consequences. In the context of classification, each internal node of the tree...	Classification Algorithms	Medium

question	answer	category	difficulty
What is the purpose of clustering in machine learning?	Clustering is a type of unsupervised learning where the goal is to group similar data points together into clusters. This can be useful for tasks such as customer segmentation, anomaly...	Clustering	Easy

question	answer	category	difficulty
Describe the k-means algorithm for clustering.	The k-means algorithm is an iterative algorithm that partitions a dataset into k clusters. It starts by randomly selecting k initial cluster centroids. Then, it iteratively assigns each data...	Clustering Algorithms	Medium

question	answer	category	difficulty
What are association rules and how are they used in market basket analysis?	Association rules are rules that describe relationships between items in a dataset. In market basket analysis, they are used to discover patterns of co-occurrence between items purchased...	Association Rule Mining	Medium

question	answer	category	difficulty
Explain the concept of the Apriori algorithm for association rule mining.	The Apriori algorithm is an algorithm for discovering frequent itemsets in a dataset. It works by iteratively generating candidate itemsets of increasing size and pruning those that do not...	Association Rule Mining Algorithms	Hard

question	answer	category	difficulty
What are some common evaluation metrics used to assess the performance of classification models?	Common evaluation metrics for classification models include accuracy, precision, recall, F1-score, and AUC (Area Under the ROC Curve). These metrics provide different perspectives on...	Model Evaluation	Medium

question	answer	category	difficulty
What is the difference between bias and variance in machine learning?	Bias refers to the error introduced by approximating a real-world problem with a simplified model. Variance refers to the error introduced by the model's sensitivity to...	Machine Learning Concepts	Hard

question	answer	category	difficulty
How can feature engineering improve the performance of a predictive model?	Feature engineering involves transforming or creating new features from existing ones to improve the model's ability to learn from the data. This can involve techniques such as scaling,...	Feature Engineering	Medium

question	answer	category	difficulty
What are some common challenges encountered in real-world data science projects?	Common challenges include data quality issues (missing values, inconsistencies, outliers), data scarcity, high dimensionality, complex relationships in the data, and the need to...	Data Science Challenges	Hard

question	answer	category	difficulty
What is the course code for "Programming Languages for Data Science"?	CS128-5	Course Information	easy

question	answer	category	difficulty
What are the prerequisites for CS128-5?	CS127-5, CS127-5L	Course Information	easy

question	answer	category	difficulty
How many credit units is CS128-5?	2 units	Course Information	easy

question	answer	category	difficulty
What programming language is used in CS128-5?	Python	Course Information	easy

question	answer	category	difficulty
What are the main topics covered in CS128-5?	Basic language concepts, object-oriented fundamentals, and GUI interfaces.	Course Information	easy

question	answer	category	difficulty
What is the objective of Module 1: Fundamentals of Computer Programming with MATLAB?	To understand the basic components of computer programming with MATLAB.	Course Structure	easy

question	answer	category	difficulty
What is the objective of Module 2: Control Structures and Object-Oriented Programming with MATLAB?	To be familiarized in various programing language structures.	Course Structure	easy

question	answer	category	difficulty
What are the assessment tasks for Module 1?	FA1.1, FA1.2, and SA1.	Assessment	easy

question	answer	category	difficulty
What is the weight of FA1.1 in Module 1?	25%	Assessment	easy

question	answer	category	difficulty
What is the minimum average for satisfactory performance in Module 1?	70%	Assessment	easy

question	answer	category	difficulty
What are the assessment tasks for Module 2?	FA2.1, FA2.2, and SA2.	Assessment	easy

question	answer	category	difficulty
What is the weight of FA2.2 in Module 2?	25%	Assessment	easy

question	answer	category	difficulty
What is the minimum average for satisfactory performance in Module 2?	70%	Assessment	easy

question	answer	category	difficulty
What is the minimum module grade average for a course grade of 1.00?	$1.0 \leq \text{MGA} < 1.10$	Grading	easy

question	answer	category	difficulty
What is the minimum module grade average for a course grade of 2.00?	$1.85 < \text{MGA} \leq 2.10$	Grading	easy

question	answer	category	difficulty
What is the maximum number of absences allowed for a three-unit course according to CHED policy?	9 hours	Policies	easy

question	answer	category	difficulty
What happens to a student who exceeds the maximum number of unexcused absences?	They automatically receive a failing grade.	Policies	easy

question	answer	category	difficulty
What is the academic integrity policy of the university?	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...	Policies	medium

question	answer	category	difficulty
What are the possible sanctions for academic dishonesty?	Failed mark in the course, suspension for a period of less than one term, with or without community service, suspension for a period of one term or more, with or without community service, non-...	Policies	medium

question	answer	category	difficulty
What are some examples of academic dishonesty?	Using another MyMapúa email address to login to any platform, asking or hiring someone else to do their exams, homework, Coursera course, papers, projects or other academic requirements, recording...	Policies	medium

question	answer	category	difficulty
What happens to a student who violates the academic integrity policy?	They 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.	Policies	medium

question	answer	category	difficulty
How do students schedule consultations with the professor?	Consultation schedules are posted outside the School of IT Faculty room and in the School's website (http://it.mapua.edu.ph).	Policies	easy

question	answer	category	difficulty
What should students do if they are not satisfied with the decision of the faculty on their assessment?	They can elevate the appeal to the program chair or dean within one week of the faculty's decision.	Policies	easy

question	answer	category	difficulty
Who are the cluster representative and professors for CS128-5?	The cluster representative is Raymond B. Sedilla, and the professors are Cheryl Mari M. Isip and Christian T. Maldonado.	Course Information	easy

question	answer	category	difficulty
What is the vision of Mapúa University?	Mapúa shall be among the best universities in the world.	University Information	easy

question	answer	category	difficulty
What are the four main goals of Mapúa University's mission?	To provide a learning environment for its students to acquire the attributes that will make them globally competitive, engage in publishable and/or economically viable research, development, and...	University Information	easy

question	answer	category	difficulty
What are the program educational objectives for graduates of Mapúa's Engineering programs within five years after graduation?	Graduates should have undertaken projects that show ability to solve complex technical problems and to work in teams on problems whose solutions lead to significant societal benefits,...	University Information	medium

question	answer	category	difficulty
What are the ABET student outcomes for CS128-5?	An ability to analyze a problem, and to identify and define the computing requirements appropriate to its solution, an ability to design, implement, and evaluate a computer-based solution to meet a...	University Information	medium

question	answer	category	difficulty
What are the CHED student outcomes for CS128-5?	Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to...	University Information	hard

question	answer	category	difficulty
What is the role of professional societies in lifelong learning?	Professional societies help individuals stay up-to-date on the latest trends and developments in their field, connect with other professionals in their field, and provide opportunities for...	Lifelong Learning	medium

question	answer	category	difficulty
How does CS128-5 contribute to the professional component of a student's education?	The course teaches students about the use of programming languages for data science, which is a skill that is highly valued in the industry.	Professional Component	medium

question	answer	category	difficulty
What is the difference between synchronous and asynchronous learning?	Synchronous learning takes place in real-time, such as a live lecture or video conference, while asynchronous learning takes place on your own time, such as watching a recorded lecture or...	Learning Modes	easy

question	answer	category	difficulty
What is the difference between a formative and summative assessment?	Formative assessments are designed to monitor student learning and provide feedback for improvement, while summative assessments are designed to evaluate student learning at the end...	Assessment	easy

question	answer	category	difficulty
What is the purpose of a course portfolio?	A course portfolio is a collection of student work that demonstrates their learning and growth over the course of the semester. It can be used to showcase their skills, knowledge, and...	Assessment	easy

question	answer	category	difficulty
What is the difference between a module grade and a course grade?	A module grade is the grade that a student receives for a specific unit of the course, while a course grade is the overall grade that a student receives for the entire course.	Grading	easy

question	answer	category	difficulty
How is a module grade average calculated?	It is calculated by multiplying the credit units of each module by the corresponding module grade and then dividing the sum by the total number of credit units.	Grading	easy

question	answer	category	difficulty
How is a course grade determined?	It is determined by the module grade average using a table that assigns a specific course grade to each range of module grade averages.	Grading	easy

question	answer	category	difficulty
What is the purpose of the "Course Portfolio" component in CS128-5?	Selected guided learning outputs and examinations are compiled and collected before the end of the term to demonstrate the student's learning and growth over the course of the semester.	Assessment	easy

question	answer	category	difficulty
Why is it important to adhere to the Dress and Grooming Codes at Mapúa University?	It is a part of the university's policy to maintain a professional and respectful environment for all students, faculty, and staff.	University Policies	easy

question	answer	category	difficulty
What is the purpose of the "Consultation Schedule" for CS128-5?	Students can schedule consultations with the professor to get additional help or clarification on course material.	Course Information	easy

question	answer	category	difficulty
What is the difference between a "cluster representative" and a "professor" in the context of CS128-5?	A cluster representative is responsible for overseeing the overall course curriculum and ensuring that students are meeting the learning objectives, while professors are responsible for...	Course Information	medium

question	answer	category	difficulty
How does the "Academic Integrity Policy" of Mapúa University affect student assessments?	Students who violate the academic integrity policy will receive a failing grade for the assignment or course, and may also face further disciplinary action from the university.	University Policies	medium

question	answer	category	difficulty
What are the benefits of a "lifelong learning" approach to education?	It helps individuals stay up-to-date on the latest trends and developments in their field, connect with other professionals, and continue to grow both professionally and personally.	Lifelong Learning	medium

question	answer	category	difficulty
How can a student ensure that their course portfolio is comprehensive and reflective of their learning in CS128-5?	By selecting a variety of assignments that demonstrate their understanding of the course concepts, by including feedback from the instructor on their work, and by reflecting on...	Assessment	medium

question	answer	category	difficulty
Why is it important for students to communicate effectively with their instructors and peers?	Effective communication is essential for understanding course material, asking questions, getting help when needed, and collaborating on assignments.	Communication	easy

question	answer	category	difficulty
What are some of the challenges that students may face when learning about programming languages for data science?	Students may find it challenging to grasp complex programming concepts, debug code, and effectively apply these concepts to real-world data science problems.	Learning Challenges	medium

question	answer	category	difficulty
How can students overcome the challenges they face when learning about programming languages for data science?	By practicing regularly, seeking help from instructors or peers when needed, breaking down complex concepts into smaller, more manageable parts, and by applying their knowledge to...	Learning Strategies	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should be aware of when working with data science projects?	Students should be aware of the potential for bias in data, the importance of data privacy and security, and the responsible use of data science for social good.	Ethics	medium

question	answer	category	difficulty
How can students use the resources provided in the course syllabus to their advantage?	By reviewing the syllabus carefully to understand the course requirements, deadlines, and assessment criteria, and by utilizing the provided resources such as textbooks, articles, and online tools.	Course Resources	easy

question	answer	category	difficulty
What is the role of the "program chair" in the university's appeal process?	The program chair reviews the student's appeal if they are not satisfied with the decision of the faculty and has the authority to overturn or modify the decision.	University Policies	medium

question	answer	category	difficulty
What are some examples of how a student can demonstrate professionalism in their work for CS128-5?	By submitting assignments on time, attending class regularly, participating actively in class discussions, following the instructor's guidelines for assignments, and by being respectful to their...	Professionalism	medium

question	answer	category	difficulty
What is the relationship between the "vision" and the "mission" of Mapúa University?	The mission of Mapúa University outlines the specific goals and objectives that the university will pursue in order to achieve its overarching vision of becoming one of the best universities in...	University Information	medium

question	answer	category	difficulty
What are the key differences between synchronous and asynchronous learning in terms of student engagement and interaction?	Synchronous learning typically involves more real-time interaction and collaboration between students and instructors, while asynchronous learning allows for greater flexibility and...	Learning Modes	medium

question	answer	category	difficulty
How can students benefit from participating in guided learning activities in CS128-5?	Guided learning activities provide students with structured support and guidance, help them develop key skills and concepts, and provide opportunities for feedback and improvement.	Learning Activities	easy

question	answer	category	difficulty
What is the importance of understanding the legal and ethical implications of data science in the context of CS128-5?	Students need to be aware of the potential consequences of using data science for unethical or illegal purposes and should understand the importance of data privacy, security, and...	Ethics	medium

question	answer	category	difficulty
How can students use their knowledge of programming languages for data science to make a positive impact on society?	Students can use their skills to develop data-driven solutions to real-world problems in areas such as healthcare, education, environmental protection, and social justice.	Social Impact	medium

question	answer	category	difficulty
How can students leverage the "Course Portfolio" component to showcase their growth and development in CS128-5?	By carefully selecting a diverse range of assignments that highlight their progress in understanding course concepts, applying programming skills, and solving problems, and by...	Assessment	medium

question	answer	category	difficulty
What are the potential consequences of a student failing to adhere to the Dress and Grooming Codes at Mapúa University?	Students who violate the Dress and Grooming Codes may receive a warning, be asked to change their attire, or face disciplinary action depending on the severity of the violation.	University Policies	medium

question	answer	category	difficulty
Why is it important for students to understand the "Academic Integrity Policy" of Mapúa University?	It helps students avoid engaging in academic dishonesty and promotes a culture of ethical conduct and responsible academic practices within the university community.	University Policies	medium

question	answer	category	difficulty
What are some practical examples of how a student can demonstrate professionalism in their interactions with classmates and instructors in CS128-5?	By being respectful in their interactions, participating actively in class discussions, being prepared for lectures and assignments, responding to feedback constructively, and by meeting...	Professionalism	medium

question	answer	category	difficulty
How can students balance the demands of a busy academic schedule with the need for lifelong learning?	By setting realistic goals for their professional development, utilizing online learning resources, joining professional organizations, and by seeking out opportunities for mentorship and networking.	Lifelong Learning	medium

question	answer	category	difficulty
What are some of the challenges that students might encounter when collaborating on projects in CS128-5?	Challenges include managing different work styles and communication preferences, ensuring that all team members contribute equally, and resolving conflicts that may arise during the project.	Collaboration	medium

question	answer	category	difficulty
How can students use the resources provided in the "Course Syllabus" to improve their understanding of the course content?	By reviewing the syllabus carefully, identifying key concepts and learning objectives, and by using the provided resources such as textbooks, articles, and online tools to supplement their...	Course Resources	medium

question	answer	category	difficulty
What are the advantages and disadvantages of synchronous and asynchronous learning in terms of student learning?	Synchronous learning provides real-time interaction and feedback but can be less flexible for students with busy schedules. Asynchronous learning offers greater flexibility but can...	Learning Modes	medium

question	answer	category	difficulty
How can students use the "Consultation Schedule" to their advantage in CS128-5?	By scheduling regular consultations with the instructor, students can get personalized guidance, address any questions or concerns, and receive feedback on their work.	Course Information	medium

question	answer	category	difficulty
Why is it important for students to understand the role of the "program chair" in the appeal process?	The program chair is a key figure in ensuring fairness and transparency in the appeal process, as they have the authority to review and potentially overturn the decision of the faculty.	University Policies	medium

question	answer	category	difficulty
How can students demonstrate professionalism in their written work for CS128-5?	By submitting assignments on time, following the instructor's guidelines for formatting and citation, using proper grammar and spelling, and by ensuring that their work is clear, concise, and...	Professionalism	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should be aware of when using data science for research or personal projects?	Students should be aware of data privacy concerns, the potential for bias in data, the responsible use of data to avoid discrimination, and the need to obtain informed consent before collecting or...	Ethics	medium

question	answer	category	difficulty
How can students use the "Consultation Schedule" to their advantage in terms of seeking help or clarification on course material?	By scheduling consultations with the instructor, students can ask questions, receive feedback, and gain a deeper understanding of the course content.	Course Information	medium

question	answer	category	difficulty
Why is it important for students to understand the purpose and process of the "Appeal System" at Mapúa University?	It empowers students to voice their concerns and ensures that they have a fair opportunity to have their assessments reviewed and potentially adjusted if there are legitimate grounds for an...	University Policies	medium

question	answer	category	difficulty
What are some of the key skills and knowledge that students develop through their participation in CS128-5?	Students develop skills in programming, data analysis, problem-solving, critical thinking, and communication, as well as a foundational understanding of ethical considerations in data...	Course Outcomes	medium

question	answer	category	difficulty
How can students use the knowledge and skills they gain in CS128-5 to make a positive impact on their careers and future endeavors?	By developing strong programming skills, students can pursue careers in data science, software engineering, machine learning, and other related fields. They can also use their knowledge to...	Career Relevance	medium

question	answer	category	difficulty
How can students effectively manage their time to balance their academic workload with their personal commitments while taking CS128-5?	By creating a schedule that allocates specific time slots for studying, attending lectures, completing assignments, and engaging in extracurricular activities, while also setting...	Time Management	medium

question	answer	category	difficulty
What are some strategies students can use to improve their understanding of complex programming concepts in CS128-5?	By breaking down complex concepts into smaller, more manageable parts, by practicing regularly with code examples, by seeking help from instructors or peers when needed, and by relating...	Learning Strategies	medium

question	answer	category	difficulty
How can students ensure that they are actively participating in class discussions and contributing meaningfully to the learning environment?	By coming prepared to class, listening attentively to others, formulating thoughtful responses, asking clarifying questions, and by respecting the views and perspectives of their classmates.	Active Learning	medium

question	answer	category	difficulty
Why is it essential for students to understand the limitations of data science and its potential for bias?	It helps them avoid making inaccurate or misleading interpretations of data, ensures they use data ethically and responsibly, and promotes a more critical and nuanced understanding of data-...	Ethics	medium

question	answer	category	difficulty
How can students leverage the resources available in the Mapúa University library and online to enhance their learning in CS128-5?	By exploring the university's library databases for relevant research articles and books, by accessing online learning platforms and resources, and by utilizing the library's online chat support...	Research & Resources	medium

question	answer	category	difficulty
How can students prepare for the "Long Quiz" assessments in CS128-5 to maximize their chances of success?	By reviewing course materials thoroughly, by practicing with past quizzes and exams, by seeking clarification from instructors on any challenging concepts, and by ensuring they understand the...	Assessment	medium

question	answer	category	difficulty
What are some of the challenges that students might face when working with data sets in CS128-5?	Challenges include understanding the structure and format of different data sets, cleaning and pre-processing data to remove errors and inconsistencies, and identifying relevant features...	Data Handling	medium

question	answer	category	difficulty
How can students effectively communicate their understanding of data science concepts to audiences with varying levels of technical expertise?	By tailoring their explanations to the audience's background and knowledge level, using clear and concise language, providing visual aids such as charts and graphs, and by focusing on the...	Communication	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should keep in mind when using data science for social good?	Students should ensure that their work is fair and equitable, addresses the needs of marginalized communities, promotes transparency and accountability, and avoids perpetuating biases or...	Ethics	medium

question	answer	category	difficulty
How can students leverage the skills and knowledge they gain in CS128-5 to develop innovative solutions to real-world problems?	By applying their understanding of data analysis, programming, and problem-solving to identify key challenges and develop data-driven solutions that can make a positive impact on society.	Problem-Solving	medium

question	answer	category	difficulty
What are some of the ways that students can stay up-to-date on the latest trends and advancements in the field of data science?	By reading industry publications and blogs, attending conferences and workshops, joining professional organizations, and by participating in online forums and communities.	Lifelong Learning	medium

question	answer	category	difficulty
How can students use their knowledge of programming languages for data science to develop their entrepreneurial skills?	By identifying opportunities to apply data science to solve real-world problems, by developing innovative solutions that can be commercialized, and by building their network and skills to launch...	Entrepreneurship	medium

question	answer	category	difficulty
How can students ensure that their work in CS128-5 is aligned with the ethical principles of data science?	By being mindful of the potential for bias in data, by prioritizing data privacy and security, by using data responsibly to promote social good, and by avoiding the perpetuation of inequalities...	Ethics	medium

question	answer	category	difficulty
What are some of the challenges that students might encounter when working with large datasets in CS128-5?	Challenges include managing the computational resources needed to process large datasets, ensuring data quality and consistency, and identifying relevant patterns and insights within...	Data Handling	medium

question	answer	category	difficulty
How can students use their knowledge of programming languages for data science to contribute to research projects?	By developing programs to analyze data, by creating visualizations to communicate research findings, and by contributing to the development of new research methodologies or tools.	Research	medium

question	answer	category	difficulty
What are some of the key differences between traditional programming and data science programming?	Data science programming often involves working with larger datasets, handling complex data structures, and utilizing specialized libraries and tools for data analysis and visualization.	Programming	medium

question	answer	category	difficulty
How can students use their knowledge of data science to develop innovative solutions for social problems?	By applying data science techniques to analyze social issues, identify patterns and trends, and develop data-driven solutions that address these challenges effectively.	Social Impact	medium

question	answer	category	difficulty
How can students effectively balance their academic workload with their personal commitments while taking CS128-5?	By creating a schedule that allocates specific time slots for studying, attending lectures, completing assignments, and engaging in extracurricular activities, while also setting...	Time Management	medium

question	answer	category	difficulty
What are some strategies students can use to improve their understanding of complex programming concepts in CS128-5?	By breaking down complex concepts into smaller, more manageable parts, by practicing regularly with code examples, by seeking help from instructors or peers when needed, and by relating...	Learning Strategies	medium

question	answer	category	difficulty
How can students ensure that they are actively participating in class discussions and contributing meaningfully to the learning environment?	By coming prepared to class, listening attentively to others, formulating thoughtful responses, asking clarifying questions, and by respecting the views and perspectives of their classmates.	Active Learning	medium

question	answer	category	difficulty
Why is it essential for students to understand the limitations of data science and its potential for bias?	It helps them avoid making inaccurate or misleading interpretations of data, ensures they use data ethically and responsibly, and promotes a more critical and nuanced understanding of data...	Ethics	medium

question	answer	category	difficulty
How can students leverage the resources available in the Mapúa University library and online to enhance their learning in CS128-5?	By exploring the university's library databases for relevant research articles and books, by accessing online learning platforms and resources, and by utilizing the library's online chat support...	Research & Resources	medium

question	answer	category	difficulty
How can students prepare for the "Long Quiz" assessments in CS128-5 to maximize their chances of success?	By reviewing course materials thoroughly, by practicing with past quizzes and exams, by seeking clarification from instructors on any challenging concepts, and by ensuring they understand the...	Assessment	medium

question	answer	category	difficulty
What are some of the challenges that students might encounter when working with data sets in CS128-5?	Challenges include understanding the structure and format of different data sets, cleaning and pre-processing data to remove errors and inconsistencies, and identifying relevant features...	Data Handling	medium

question	answer	category	difficulty
How can students effectively communicate their understanding of data science concepts to audiences with varying levels of technical expertise?	By tailoring their explanations to the audience's background and knowledge level, using clear and concise language, providing visual aids such as charts and graphs, and by focusing on the...	Communication	medium

question	answer	category	difficulty
Why is it important for students to understand the ethical considerations that students should keep in mind when using data science for social good?	Students should ensure that their work is fair and equitable, addresses the needs of marginalized communities, promotes transparency and accountability, and avoids perpetuating biases or...	Ethics	medium

question	answer	category	difficulty
How can students leverage the skills and knowledge they gain in CS128-5 to develop innovative solutions to real-world problems?	By applying their understanding of data analysis, programming, and problem-solving to identify key challenges and develop data-driven solutions that can make a positive impact on society.	Problem-Solving	medium

question	answer	category	difficulty
What are some of the ways that students can stay up-to-date on the latest trends and advancements in the field of data science?	By reading industry publications and blogs, attending conferences and workshops, joining professional organizations, and by participating in online forums and communities.	Lifelong Learning	medium

question	answer	category	difficulty
How can students use their knowledge of programming languages for data science to develop their entrepreneurial skills?	By identifying opportunities to apply data science to solve real-world problems, by developing innovative solutions that can be commercialized, and by building their network and skills to launch...	Entrepreneurship	medium

question	answer	category	difficulty
How can students ensure that their work in CS128-5 is aligned with the ethical principles of data science?	By being mindful of the potential for bias in data, by prioritizing data privacy and security, by using data responsibly to promote social good, and by avoiding the perpetuation of inequalities...	Ethics	medium

question	answer	category	difficulty
What are some of the challenges that students might encounter when working with large datasets in CS128-5?	Challenges include managing the computational resources needed to process large datasets, ensuring data quality and consistency, and identifying relevant patterns and insights within...	Data Handling	medium

question	answer	category	difficulty
How can students use their knowledge of programming languages for data science to contribute to research projects?	By developing programs to analyze data, by creating visualizations to communicate research findings, and by contributing to the development of new research methodologies or tools.	Research	medium

question	answer	category	difficulty
What are some of the key differences between traditional programming and data science programming?	Data science programming often involves working with larger datasets, handling complex data structures, and utilizing specialized libraries and tools for data analysis and visualization.	Programming	medium

question	answer	category	difficulty
How can students use their knowledge of data science to develop innovative solutions for social problems?	By applying data science techniques to analyze social issues, identify patterns and trends, and develop data-driven solutions that address these challenges effectively.	Social Impact	medium

question	answer	category	difficulty
How can students use their understanding of data science to develop a data-driven business strategy?	By analyzing market trends, customer data, and competitor strategies, students can use data science to identify opportunities, optimize operations, and develop effective marketing...	Business	medium

question	answer	category	difficulty
How can students use the knowledge and skills they gain in CS128-5 to create a portfolio that showcases their abilities to potential employers?	By developing personal projects that demonstrate their programming skills, data analysis capabilities, and understanding of data science concepts, students can create a portfolio that...	Career Development	medium

question	answer	category	difficulty
What are some of the challenges that students might face when working with real-world data sets in CS128-5?	Real-world data sets can be messy, incomplete, and often contain biases. Students need to be able to clean, transform, and analyze this data effectively to extract meaningful insights.	Data Handling	medium

question	answer	category	difficulty
How can students use their understanding of data science to contribute to the development of a more equitable and just society?	By analyzing data to identify and address social inequalities, by developing solutions to address systemic biases, and by using data to advocate for policy changes that promote social justice.	Social Impact	medium

question	answer	category	difficulty
What are some of the emerging trends and advancements in data science that students should be aware of?	Trends include the rise of artificial intelligence and machine learning, the increasing importance of big data and cloud computing, and the growing use of data science in fields such as healthcare,...	Data Science Trends	medium

question	answer	category	difficulty
How can students use their understanding of data science to promote a more sustainable and environmentally responsible future?	By applying data science to analyze environmental data, identify patterns and trends, and develop solutions to address environmental challenges such as climate change and pollution.	Sustainability	medium

question	answer	category	difficulty
How can students utilize the knowledge gained from CS128-5 to contribute to research projects in their respective fields?	By applying their understanding of data analysis, programming, and statistical methods to collect, clean, analyze, and visualize data relevant to their research area, potentially leading to new...	Research	medium

question	answer	category	difficulty
How can students effectively manage their time to complete both the course requirements for CS128-5 and other academic commitments?	By prioritizing tasks, breaking down large assignments into smaller, manageable steps, utilizing time management tools and techniques, and seeking support from instructors or peers when...	Time Management	medium

question	answer	category	difficulty
What are some of the challenges students might face when working with unstructured data in CS128-5?	Unstructured data, like text, audio, and images, requires specialized techniques for processing and analysis, such as natural language processing or computer vision. It often requires data cleaning...	Data Handling	medium

question	answer	category	difficulty
How can students develop their critical thinking skills in the context of CS128-5?	By questioning assumptions, evaluating the reliability of data sources, identifying potential biases in data analysis, and considering alternative interpretations of findings.	Critical Thinking	medium

question	answer	category	difficulty
How can students use their understanding of data science to make more informed decisions in their personal lives?	By applying data analysis to personal finance, health, and fitness, students can make better decisions about spending, investments, lifestyle choices, and personal development.	Personal Application	medium

question	answer	category	difficulty
How can students use the knowledge they gain from CS128-5 to contribute to open-source projects?	By contributing code, documentation, or bug fixes to open-source projects, students can collaborate with others, gain practical experience, and contribute to the development of valuable software...	Open Source	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should be aware of when working with sensitive data in CS128-5?	Students should be mindful of data privacy regulations, informed consent procedures, and the potential for misuse of sensitive data, such as personal health information or financial records.	Ethics	medium

question	answer	category	difficulty
How can students effectively communicate the results of their data analysis to a non-technical audience?	By using clear and concise language, avoiding technical jargon, presenting information visually with graphs and charts, and highlighting the key takeaways and implications of their findings.	Communication	medium

question	answer	category	difficulty
What are some of the challenges students might face when working with time series data in CS128-5?	Time series data, which represents data collected over time, often requires specialized techniques for analysis, such as forecasting, anomaly detection, and trend analysis.	Data Handling	medium

question	answer	category	difficulty
How can students leverage the skills they gain in CS128-5 to contribute to the development of data-driven decision-making processes in organizations?	By analyzing data to identify key performance indicators, by developing predictive models, and by providing insights to guide decision-making, students can contribute to more informed and data-...	Business Applications	medium

question	answer	category	difficulty
How can students use their knowledge of data science to promote greater transparency and accountability in government and public institutions?	By advocating for the use of data to track and measure progress on key issues, by developing open data initiatives to make government data more accessible, and by using data to hold institutions...	Social Impact	medium

question	answer	category	difficulty
What are some of the emerging trends in the field of data visualization that students should be aware of?	Trends include the use of interactive visualizations, the integration of data visualization with storytelling, and the increasing use of augmented and virtual reality...	Data Visualization	medium

question	answer	category	difficulty
How can students use their understanding of data science to address the challenges of climate change?	By analyzing climate data to identify trends and patterns, by developing models to predict future climate scenarios, and by creating data-driven solutions to mitigate the effects of climate...	Sustainability	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should keep in mind when working with artificial intelligence (AI) in CS128-5?	Students should be aware of the potential for bias in AI algorithms, the importance of data privacy and security, and the need to ensure that AI systems are used responsibly and ethically.	Ethics	medium

question	answer	category	difficulty
How can students leverage the knowledge they gain in CS128-5 to develop a career in data science?	By building a strong foundation in programming, data analysis, and statistical methods, by developing a portfolio of projects that showcase their skills, and by networking with professionals...	Career Development	medium

question	answer	category	difficulty
How can students in CS128-5 effectively utilize online learning platforms like Coursera to supplement their coursework and enhance their understanding of data science concepts?	By exploring Coursera courses related to data science, programming, and statistics, taking advantage of interactive exercises and quizzes, participating in discussion forums, and utilizing...	Online Learning	medium

question	answer	category	difficulty
What are some of the key benefits of working on open-source data science projects for students in CS128-5?	It allows them to contribute to real-world projects, collaborate with other developers, gain practical experience, learn from experienced developers, and potentially build a portfolio that...	Open Source	medium

question	answer	category	difficulty
How can students in CS128-5 use their knowledge of data science to contribute to the development of more effective healthcare systems?	By applying data analysis techniques to medical data, developing predictive models for disease outbreaks and patient outcomes, and creating personalized medicine solutions based on...	Healthcare	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should be aware of when working with data related to social media in CS128-5?	Students should be mindful of data privacy issues, the potential for bias in social media data, and the ethical implications of using social media data for research or marketing purposes.	Ethics	medium

question	answer	category	difficulty
How can students leverage the knowledge they gain from CS128-5 to develop a career in data journalism?	By combining their understanding of data analysis, programming, and storytelling techniques, students can use data to create compelling and informative stories that can shed light on important issues...	Data Journalism	medium

question	answer	category	difficulty
What are some of the challenges students might encounter when working with data related to finance in CS128-5?	Financial data is often complex, sensitive, and subject to strict regulations. Students need to be able to handle large datasets, ensure data security and privacy, and understand the...	Finance	medium

question	answer	category	difficulty
How can students use their understanding of data science to promote greater inclusivity and accessibility in technology?	By developing technologies that are designed to be accessible to people with disabilities, by using data to identify and address biases in algorithms, and by promoting diversity and inclusion in the...	Social Impact	medium

question	answer	category	difficulty
What are some of the emerging trends in the field of data ethics that students should be aware of?	Trends include the growing importance of data privacy and security, the increasing focus on algorithmic fairness and transparency, and the need to ensure that data is used ethically and...	Data Ethics	medium

question	answer	category	difficulty
How can students leverage their understanding of data science to contribute to the development of sustainable solutions for environmental challenges?	By analyzing environmental data to identify patterns and trends, by developing models to predict the impact of climate change, and by creating data-driven solutions to reduce...	Sustainability	medium

question	answer	category	difficulty
How can students in CS128-5 use their knowledge of data science to contribute to the advancement of scientific research?	By developing tools and techniques to analyze large datasets, by creating visualizations to communicate research findings, and by helping researchers to make sense of complex data.	Research	medium

question	answer	category	difficulty
How can students in CS128-5 use their knowledge of data science to improve their own learning and academic performance?	By analyzing their own learning patterns and performance data, identifying areas for improvement, and developing personalized learning strategies to address their individual needs.	Learning Strategies	medium

question	answer	category	difficulty
What are some of the ethical considerations that students should be aware of when working with data related to elections and political campaigns?	Students should be mindful of data privacy laws, the potential for misuse of data to influence elections, and the need to ensure that data is used ethically and transparently.	Ethics	medium

question	answer	category	difficulty
How can students in CS128-5 use their knowledge of data science to develop a career in the field of education?	By applying data analysis to educational data to identify trends and patterns, by developing personalized learning programs for students, and by using data to improve teaching methods and...	Education	medium

question	answer	category	difficulty
How can students in CS128-5 use their understanding of data science to promote greater transparency and accountability in government and public institutions?	By advocating for the use of data to track and measure progress on key issues, by developing open data initiatives to make government data more accessible, and by using data to hold institutions...	Social Impact	medium

question	answer	category	difficulty
What are some of the key challenges that students might face when working with text data in CS128-5?	Text data often requires preprocessing, such as stemming, lemmatization, and stop word removal, to prepare it for analysis. Natural language processing techniques are often used to extract...	Data Handling	medium

question	answer	category	difficulty
How can students use their understanding of data science to promote greater access to information and knowledge?	By developing tools and resources to make data more accessible and understandable, by creating data visualizations that communicate complex information clearly, and by promoting data...	Social Impact	medium

question	answer	category	difficulty
What is the vision of Mapúa University?	Mapúa shall be among the best universities in the world.	University Vision	Easy

question	answer	category	difficulty
List the three key aspects of Mapúa University's mission.	1. Provide a globally competitive learning environment. 2. Engage in research, development, and innovation. 3. Provide state-of-the-art solutions to industry and community problems.	University Mission	Medium

question	answer	category	difficulty
Within five years of graduation, what kind of projects should graduates of Mapúa's Engineering programs have undertaken?	Projects demonstrating the ability to solve complex technical problems, work in teams, and whose solutions lead to significant societal benefits.	Program Educational Objectives	Medium

question	answer	category	difficulty
How are graduates expected to demonstrate life-long learning according to the Program Educational Objectives?	By pursuing advanced degrees, professional development, or completing relevant training courses and certifications.	Program Educational Objectives	Medium

question	answer	category	difficulty
What factors should graduates consider in their projects, according to the Program Educational Objectives, in relation to safety and public welfare?	Safety, health, environmental concerns, and the public welfare, while adhering to required codes and laws.	Program Educational Objectives	Medium

question	answer	category	difficulty
Describe the first ABET Student Outcome related to problem analysis.	The ability to analyze a problem and identify and define the computing requirements appropriate for its solution.	ABET Student Outcomes	Easy

question	answer	category	difficulty
What does the second ABET Student Outcome emphasize regarding computer-based solutions?	The ability to design, implement, and evaluate a computer-based solution that meets given computing requirements within the context of the discipline.	ABET Student Outcomes	Medium

question	answer	category	difficulty
How should graduates demonstrate effective communication according to ABET Student Outcomes?	By effectively communicating technical information to a range of audiences.	ABET Student Outcomes	Easy

question	answer	category	difficulty
What principles should guide informed judgments in computing practice, as per ABET Student Outcomes?	Legal and ethical principles.	ABET Student Outcomes	Easy

question	answer	category	difficulty
Explain the fifth ABET Student Outcome related to teamwork.	The ability to function effectively in teams to establish goals, plan tasks, meet deadlines, manage risk, and produce deliverables.	ABET Student Outcomes	Medium

question	answer	category	difficulty
What is the focus of the sixth ABET Student Outcome regarding user needs?	The ability to identify and analyze user needs and consider them in the selection, integration, evaluation, and administration of computer-based systems.	ABET Student Outcomes	Medium

question	answer	category	difficulty
What does CHED Student Outcome A emphasize in terms of applying knowledge?	Applying knowledge of computing fundamentals, computing specialization, mathematics, science, and domain knowledge to abstract and conceptualize computing models from problems and requirements.	CHED Student Outcomes	Hard

question	answer	category	difficulty
According to CHED Student Outcome B, how should complex computing problems be addressed?	By identifying, analyzing, formulating, researching literature, and solving them, reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and...	CHED Student Outcomes	Hard

question	answer	category	difficulty
What does CHED Student Outcome C highlight regarding the application of mathematical and theoretical foundations in computer-based systems?	The ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems, demonstrating an understanding of...	CHED Student Outcomes	Hard

question	answer	category	difficulty
What area of knowledge and understanding is emphasized in CHED Student Outcome D?	Information Security issues related to the design, development, and use of information systems.	CHED Student Outcomes	Medium

question	answer	category	difficulty
Describe CHED Student Outcome E in terms of designing and evaluating solutions.	Designing and evaluating solutions for complex computing problems, and designing and evaluating systems, components, or processes that meet specified needs, considering public health and...	CHED Student Outcomes	Hard

question	answer	category	difficulty
What is the focus of CHED Student Outcome F in relation to techniques and tools?	Creating, selecting, adapting, and applying appropriate techniques, resources, and modern computing tools to complex computing activities, while understanding their limitations, to achieve...	CHED Student Outcomes	Hard

question	answer	category	difficulty
How should graduates function in diverse teams and settings, according to CHED Student Outcome G?	Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.	CHED Student Outcomes	Medium

question	answer	category	difficulty
Describe CHED Student Outcome H in terms of communication skills within the computing community and society.	Communicating effectively with the computing community and society about complex computing activities by comprehending and writing effective reports, designing documentation, making effective...	CHED Student Outcomes	Hard

question	answer	category	difficulty
What types of issues should graduates be able to recognize and be guided by, according to CHED Student Outcome I?	Legal, social, ethical, and professional issues involved in using computer technology, guided by the adoption of appropriate professional, ethical, and legal practices.	CHED Student Outcomes	Hard

question	answer	category	difficulty
What does CHED Student Outcome J emphasize regarding continuous development as a computing professional?	Recognizing the need for and having the ability to engage in independent learning for continual development as a computing professional.	CHED Student Outcomes	Medium

question	answer	category	difficulty
What is the course code for Artificial Intelligence at Mapúa?	CS158-1	Course Information	Easy

question	answer	category	difficulty
What is the pre-requisite for the Artificial Intelligence course?	CS10-8/CS10-8L	Course Information	Easy

question	answer	category	difficulty
How many lecture hours per week are dedicated to the Artificial Intelligence course?	3 hours	Course Information	Easy

question	answer	category	difficulty
What is the main focus of the Artificial Intelligence course?	The design of intelligent agents, which are systems that perceive and act on an environment through reasoning, problem-solving, and drawing inferences.	Course Description	Medium

question	answer	category	difficulty
What are the two main modules covered in the Artificial Intelligence course?	1. Introduction to Artificial Intelligence 2. Applications of Artificial Intelligence	Course Coverage	Easy

question	answer	category	difficulty
What is the first learning outcome for Module 1: Introduction to Artificial Intelligence?	Understand the basic concepts and terminology of AI.	Course Outcomes	Easy

question	answer	category	difficulty
What concepts will students be familiarized with in Module 2: Applications of Artificial Intelligence?	Machine and Deep learning concepts.	Course Outcomes	Easy

question	answer	category	difficulty
What are the three main teaching and learning approaches (TLA) used in the course?	Blended In-Person, Online (Synchronous/Asynchronous), and Ubiquitous Fully Online.	Course Coverage	Medium

question	answer	category	difficulty
What assessment task is typically used for the first learning outcome (CO1) in Module 1?	Short Quiz 1 (FA1.2) and Long Quiz 1 (SA1)	Course Coverage & Evaluation	Medium

question	answer	category	difficulty
What is the topic covered in week 7 of the course?	Introduction to Machine Learning.	Course Coverage	Easy

question	answer	category	difficulty
What are some of the concepts discussed under Introduction to Machine Learning in week 7?	Estimation and generalization, Supervised Learning setting, Supervised Learning, Hypothesis, Evaluating Predictions and Loss Functions, Training set errors, and Learning Algorithms.	Course Coverage	Medium

question	answer	category	difficulty
What is the topic covered in week 8 of the course?	Supervised Machine Learning Models, including Linear Classifier, Logistic Regression, K-Nearest Neighbors, Support Vector Machines, Decision Tree, Neural Networks, Random Forests, Boosting, and...	Course Coverage	Medium

question	answer	category	difficulty
What is the topic covered in week 9 of the course?	Unsupervised Machine Learning, including Clustering and Dimensionality Reduction.	Course Coverage	Easy

question	answer	category	difficulty
What deep learning concepts are introduced in week 10?	Neural Network, RNN, CNN, Activation Functions, and LSTM.	Course Coverage	Medium

question	answer	category	difficulty
What is the minimum average required for satisfactory performance in each module?	70%	Course Evaluation	Easy

question	answer	category	difficulty
What is the weight of the Short Quiz 1 (FA1.2) in Module 1?	25%	Course Evaluation	Easy

question	answer	category	difficulty
What is the weight of the Long Quiz 2 (SA2) in Module 2?	50%	Course Evaluation	Easy

question	answer	category	difficulty
What happens if a student violates the academic integrity policy or has 100% absence in a module?	They may receive a failing module grade of 5.00.	Course Evaluation	Medium

question	answer	category	difficulty
How is the module grade average calculated?	It is the weighted average of the module grades based on the credit units of each module.	Course Evaluation	Medium

question	answer	category	difficulty
What is the course grade if the Module Grade Average (MGA) is 2.55?	2.50	Course Evaluation	Medium

question	answer	category	difficulty
What is the maximum number of allowed absences for this course according to CHED policy?	20% of the total number of meetings or 9 hours.	Course Policies	Easy

question	answer	category	difficulty
What happens if a student incurs more than 9 hours of unexcused absences?	They automatically receive a failing grade regardless of their class standing.	Course Policies	Medium

question	answer	category	difficulty
What form do guided learning outputs typically take in this course?	Various worksheets in each cluster of topics.	Course Policies	Easy

question	answer	category	difficulty
What is the purpose of the course portfolio?	To compile selected guided learning outputs and examinations, showcasing a range of performance levels (lowest, median, highest).	Course Policies	Medium

question	answer	category	difficulty
In what language are lectures, discussions, and documentation conducted?	English	Course Policies	Easy

question	answer	category	difficulty
What are some examples of academic dishonesty listed in the course syllabus?	Using another's MyMapúa email, hiring someone to do academic work, recording exam materials, plagiarizing, organized online cheating, dishonesty in peer review, and any action to...	Course Policies	Hard

question	answer	category	difficulty
What is the penalty for violating the Academic Integrity Policy?	Zero mark for the assessment, a failing grade for the course, and referral to the Prefect of Discipline.	Course Policies	Medium

question	answer	category	difficulty
Where can students find the Professor's consultation schedule?	Outside the School of IT Faculty room and on the School's website.	Course Policies	Easy

question	answer	category	difficulty
Within what timeframe should students appeal assessment results?	Within one week after the return of the assessed work.	Course Policies	Easy

question	answer	category	difficulty
To whom can a student escalate an appeal if dissatisfied with the faculty's decision?	To the program chair or dean (if there is no program chair).	Course Policies	Medium

question	answer	category	difficulty
Who is the Cluster Representative for this course?	Raymond B. Sedilla	Course Information	Easy

question	answer	category	difficulty
Name one of the professors listed for this course.	Cheryl Mari M. Isip or Christian T. Maldonado	Course Information	Easy

question	answer	category	difficulty
How does the Artificial Intelligence course contribute to the professional development of Engineering graduates at Mapúa?	It equips them with knowledge and skills in AI, enabling them to design intelligent agents and contribute to the growing field of AI applications in various industries.	Course Relevance	Medium

question	answer	category	difficulty
Explain the significance of considering societal benefits when undertaking projects, as mentioned in the Program Educational Objectives.	It highlights the importance of ethical and responsible AI development, ensuring that AI solutions address real-world problems and have a positive impact on society.	Program Educational Objectives	Medium

question	answer	category	difficulty
In the context of ABET Student Outcome 3, why is it essential for computing professionals to communicate effectively with diverse audiences?	Because AI solutions often involve stakeholders with varying levels of technical expertise, clear communication ensures that everyone understands the implications and benefits of AI.	ABET Student Outcomes	Medium

question	answer	category	difficulty
Relate CHED Student Outcome E to the ethical considerations in AI development.	When designing AI solutions, it's crucial to consider potential impacts on public health, safety, culture, society, and the environment to ensure ethical and responsible AI development.	CHED Student Outcomes	Hard

question	answer	category	difficulty
Why is it important for computing professionals to be aware of the limitations of computing tools, as mentioned in CHED Student Outcome F?	Understanding limitations helps in setting realistic expectations, choosing appropriate tools for specific tasks, and mitigating potential risks associated with AI solutions.	CHED Student Outcomes	Medium

question	answer	category	difficulty
How does the Artificial Intelligence course incorporate the principles of data augmentation and regularization to avoid overfitting during fine-tuning?	While not explicitly mentioned in the syllabus, these concepts are likely integrated into the practical exercises and projects involving machine learning and deep learning models.	Course Content & Techniques	Hard

question	answer	category	difficulty
What is the role of Python programming in the Artificial Intelligence course?	Python is a popular language for AI development. The course likely utilizes Python libraries such as NumPy for numerical computation and scikit-learn for machine learning tasks.	Course Content & Tools	Medium

question	answer	category	difficulty
How does the course address the concept of 'intelligent agents' in the context of Artificial Intelligence?	It focuses on the design and implementation of agents that can perceive, reason, solve problems, and make decisions within a given environment, demonstrating the core principles of AI.	Course Content & Concepts	Medium

question	answer	category	difficulty
Compare and contrast the supervised and unsupervised machine learning models covered in the course.	Supervised learning uses labeled data for tasks like classification and regression, while unsupervised learning deals with unlabeled data for tasks like clustering and dimensionality...	Course Content & Concepts	Medium

question	answer	category	difficulty
Explain the importance of understanding activation functions in the context of deep learning (week 10).	Activation functions introduce non-linearity into neural networks, enabling them to learn complex patterns and relationships in data.	Course Content & Concepts	Medium

question	answer	category	difficulty
Why is it necessary for the course to cover both classic and recent developments in Artificial Intelligence?	It provides students with a comprehensive understanding of the field's evolution, foundational concepts, and emerging trends, preparing them for the dynamic nature of AI.	Course Relevance	Medium

question	answer	category	difficulty
How can the knowledge and skills gained in the Artificial Intelligence course be applied to address real-world problems in various industries?	Graduates can apply AI techniques to automate processes, analyze data, build intelligent systems, improve decision-making, and develop innovative solutions across diverse sectors.	Course Application	Hard

question	answer	category	difficulty
If a student struggles with a particular concept in the Artificial Intelligence course, what resources and support systems are available to them?	They can utilize the Professor's consultation hours, seek assistance from teaching assistants, collaborate with classmates, and access online resources and learning materials.	Course Support & Resources	Easy

question	answer	category	difficulty
How does the Artificial Intelligence course encourage continuous learning and professional development beyond graduation?	It fosters an appreciation for the ever-evolving nature of AI and emphasizes the importance of staying updated with the latest advancements through independent learning and engagement with...	Lifelong Learning	Medium

question	answer	category	difficulty
In the context of the Artificial Intelligence course, what are some ethical considerations that future computing professionals should be mindful of?	Issues like bias in algorithms, data privacy and security, job displacement due to automation, and the responsible use of AI in sensitive areas like healthcare and law enforcement.	Ethical Considerations	Hard

question	answer	category	difficulty
How does the emphasis on teamwork in the ABET and CHED Student Outcomes prepare students for the collaborative nature of AI projects in the real world?	AI projects often require diverse expertise and perspectives. Teamwork skills, such as communication, collaboration, and project management, are essential for successful AI...	ABET/CHED Outcomes & Real-World Application	Medium

question	answer	category	difficulty
Explain how the principles of 'lifelong learning' (CHED Outcome J) apply specifically to the rapidly evolving field of Artificial Intelligence.	AI is a constantly advancing field with new techniques and applications emerging frequently. Professionals must engage in continuous learning through self-study, online courses, conferences,...	Lifelong Learning in AI	Medium

question	answer	category	difficulty
Connect the concept of 'user needs' (ABET Outcome 6) to the design and development of user-friendly AI applications.	Understanding user needs is crucial for creating AI systems that are accessible, intuitive, and effective for their intended users. This involves considering factors like user experience,...	User-Centered AI Design	Medium

question	answer	category	difficulty
Given the focus on ethical considerations in CHED Outcome I, how might the Artificial Intelligence course address potential biases in AI algorithms and data?	The course could discuss techniques for identifying and mitigating biases in training data, evaluating fairness in AI models, and promoting responsible AI development that...	Ethical AI Development	Hard

question	answer	category	difficulty
Imagine you are tasked with designing an AI-powered chatbot for customer support. How would you incorporate the principles of 'effective communication' (ABET Outcome 3 & CHED Outcome H)...	The chatbot should be able to understand natural language, provide clear and concise responses, handle diverse communication styles, and escalate to human agents when necessary, ensuring seamless...	AI Application & Communication	Hard

question	answer	category	difficulty
Reflecting on the course's emphasis on both theoretical foundations and practical applications (CHED Outcome C), how does understanding the underlying theory of AI algorithms enhance your...	A strong theoretical understanding allows for better selection of appropriate algorithms, troubleshooting issues, interpreting results, and adapting AI techniques to new and complex...	Theory & Practice in AI	Medium

question	answer	category	difficulty
Considering the potential impact of AI on various professions, how might the Artificial Intelligence course prepare students to adapt to the changing job market and leverage AI for career advancement?	The course could equip students with in-demand AI skills, encourage them to explore diverse AI applications in their chosen fields, and promote a mindset of continuous learning and adaptation to...	AI & Future of Work	Hard

question	answer	category	difficulty
Based on the course content and learning outcomes, how would you assess the preparedness of graduates from this Artificial Intelligence course to contribute to research and innovation in the field...	The combination of theoretical foundations, practical skills, emphasis on problem-solving, and exposure to recent developments should prepare graduates to pursue further research, develop...	Research & Innovation in AI	Hard

question	answer	category	difficulty
Given the global nature of AI development and applications, how might the Artificial Intelligence course incorporate discussions on cultural and societal diversity in the context of...	The course could explore the ethical implications of deploying AI systems in diverse cultural settings, discuss potential biases related to cultural differences in data, and promote the...	AI & Cultural Diversity	Hard

question	answer	category	difficulty
Reflecting on the course policies and assessment methods, how does the emphasis on academic integrity contribute to fostering a culture of ethical and responsible AI development?	By upholding academic integrity, students are encouraged to develop a strong ethical foundation, which is crucial for responsible AI development that prioritizes fairness, transparency, and...	Academic Integrity & Ethical AI	Medium

question	answer	category	difficulty
How does the Artificial Intelligence course at Mapúa align with the university's overall vision and mission of producing globally competitive graduates?	By equipping students with in-demand AI skills and knowledge, the course contributes to their global competitiveness in a world increasingly reliant on AI technologies and applications.	Course Alignment with University Goals	Medium

question	answer	category	difficulty
Based on the course description and outcomes, how does this Artificial Intelligence course differentiate itself from other introductory AI courses offered at other institutions?	The emphasis on intelligent agent design, the integration of classic and recent AI concepts, the focus on practical applications using Python, and the alignment with ABET/CHEC outcomes may be...	Course Uniqueness & Differentiation	Hard

question	answer	category	difficulty
Imagine you are an employer looking to hire a graduate from this Artificial Intelligence course. What specific skills and qualities would you look for in a potential candidate?	Strong programming skills in Python, understanding of AI algorithms and techniques, ability to apply AI to solve real-world problems, teamwork and communication skills, and ethical awareness in AI...	Employability & Desired Skills	Hard

question	answer	category	difficulty
How might the learning experiences and assessments in the Artificial Intelligence course contribute to the development of 'critical thinking' skills among students?	Analyzing complex AI problems, evaluating different algorithms, designing solutions, interpreting results, and defending their choices through presentations and reports can foster...	Critical Thinking Development	Medium

question	answer	category	difficulty
Given the potential for AI to automate tasks and transform industries, how can this Artificial Intelligence course prepare students to navigate the ethical and societal implications of such...	By incorporating discussions on responsible AI development, addressing bias and fairness in algorithms, exploring the impact of AI on jobs and society, and promoting critical thinking about the...	AI & Societal Impact	Hard

question	answer	category	difficulty
Reflecting on the course's use of diverse teaching and learning approaches (TLA), how might the combination of in-person, online, and ubiquitous learning enhance the overall learning experience...	Flexibility, accessibility, diverse learning styles catered to, engagement through various mediums, and opportunities for collaboration beyond the classroom can be highlighted as...	Effectiveness of TLA	Medium

question	answer	category	difficulty
In the context of the Artificial Intelligence course, how can the use of external resources like Coursera and other online materials enhance the learning process and provide students with a...	Access to a wider range of learning materials, expert lectures, diverse perspectives, and opportunities for self-paced learning can complement the core course content and broaden...	Integration of External Resources	Medium

question	answer	category	difficulty
Imagine you are a student taking this Artificial Intelligence course. How would you approach the task of building a portfolio that showcases your AI skills and knowledge to potential employers or...	Including completed projects, code samples, presentations, reports, summaries of key concepts learned, reflections on ethical considerations, and evidence of continuous learning in AI would be...	Building an AI Portfolio	Hard

question	answer	category	difficulty
How might the Artificial Intelligence course foster a sense of community and collaboration among students, both within and beyond the classroom?	Group projects, online discussion forums, peer feedback sessions, study groups, and participation in AI-related events and competitions can promote interaction, collaboration, and a sense of shared...	Building a Learning Community	Medium

question	answer	category	difficulty
Looking beyond the specific content of the Artificial Intelligence course, what transferable skills (e.g., problem-solving, critical thinking, communication) will students develop that can be...	The logical reasoning, analytical skills, problem-solving approaches, communication strategies, and adaptability required in AI can be transferred to various fields and problem domains beyond the...	Transferable Skills Development	Medium

question	answer	category	difficulty
How does the Artificial Intelligence course prepare students to address the challenges of explainable AI (XAI), which focuses on making AI systems more transparent and understandable?	While not explicitly mentioned, the emphasis on understanding AI algorithms, interpreting results, and communicating technical information lays the groundwork for understanding and addressing the...	Explainable AI & Course Relevance	Hard

question	answer	category	difficulty
Considering the potential for AI to be used in safety-critical applications (e.g., autonomous vehicles, medical diagnosis), how does the course address the importance of robustness, reliability,...	While specific safety standards might not be covered in detail, the focus on ethical considerations, understanding limitations of AI tools, and designing robust solutions implicitly...	AI Safety & Course Implications	Hard

question	answer	category	difficulty
Reflecting on the course's emphasis on problem-solving, how might the Artificial Intelligence course encourage students to develop a 'growth mindset' when faced with challenging AI problems?	By framing AI problem-solving as an iterative process involving experimentation, learning from failures, and seeking diverse perspectives, the course can promote a growth mindset that embraces...	Growth Mindset & AI Problem-Solving	Medium

question	answer	category	difficulty
How might the Artificial Intelligence course contribute to students' understanding of the broader societal and philosophical implications of Artificial Intelligence, beyond its technical...	Discussions on ethical considerations, bias in algorithms, the future of work, and the potential impact of AI on human society can spark broader reflections on the philosophical and societal...	AI & Broader Societal Implications	Hard

question	answer	category	difficulty
Imagine you are designing an AI system for personalized learning. How would you incorporate the principles of user-centered design (ABET Outcome 6) and ethical considerations (CHED...	Understanding diverse learner needs, preferences, and learning styles, ensuring data privacy and security, addressing potential biases in recommendations, and promoting equitable access to...	AI in Education & Ethical Design	Hard

question	answer	category	difficulty
How might the Artificial Intelligence course prepare students to engage in interdisciplinary collaborations with professionals from other fields (e.g., healthcare, finance, environmental...	The focus on communication skills, understanding user needs, and applying AI to diverse domains can equip students to effectively collaborate with professionals from various backgrounds who are...	Interdisciplinary Collaboration in AI	Medium

question	answer	category	difficulty
Reflecting on the course's assessment methods, how do the various assessment tasks (e.g., quizzes, assignments, projects, presentations) contribute to a comprehensive evaluation of students'...	Different assessment methods target different aspects of learning, such as theoretical knowledge, practical application, problem-solving abilities, communication skills, and the ability...	Comprehensive Assessment of AI Skills	Medium

question	answer	category	difficulty
Looking beyond the formal curriculum, what opportunities might students have to further explore their interests in Artificial Intelligence outside of the classroom setting (e.g., student...	Participating in AI-related student organizations, engaging in research projects with faculty, attending AI conferences and workshops, and participating in AI hackathons can provide...	Extracurricular AI Opportunities	Easy

question	answer	category	difficulty
How might the Artificial Intelligence course contribute to the development of 'data literacy' skills among students, which are increasingly important in a data-driven world?	Working with datasets, understanding data preprocessing techniques, analyzing data patterns, interpreting results, and communicating data-driven insights are essential aspects of AI that...	AI & Data Literacy	Medium

question	answer	category	difficulty
Given the ongoing debates about the potential risks and benefits of Artificial Intelligence, how might the course encourage students to engage in informed and responsible discussions about the...	By presenting diverse perspectives on AI ethics, exploring potential societal implications, and fostering critical thinking about the responsible development and deployment of AI, the course can...	Responsible AI Discourse & Education	Hard

question	answer	category	difficulty
How does the Artificial Intelligence course contribute to Mapúa's goal of providing 'state-of-the-art' solutions to industry problems, as mentioned in the university's mission?	By equipping students with the latest AI knowledge and skills, the course prepares them to develop and implement cutting-edge AI solutions that address real-world challenges faced by various...	AI and Industry Solutions	Medium

question	answer	category	difficulty
Considering the increasing demand for AI professionals across various sectors, how does the Artificial Intelligence course prepare students for diverse career paths in the field of AI?	The course provides a foundation in core AI concepts and techniques applicable to a wide range of industries, including healthcare, finance, technology, manufacturing, and research, opening...	AI Career Paths	Medium

question	answer	category	difficulty
Reflecting on the course's focus on both theoretical understanding and practical application, how does this approach prepare students to adapt to the ever-evolving landscape...	A strong theoretical foundation allows students to grasp the underlying principles of AI, enabling them to quickly learn and adapt to new tools and techniques as the field advances.	Adaptability in AI	Medium

question	answer	category	difficulty
Given the potential for AI to exacerbate existing societal inequalities, how does the course address the importance of developing AI systems that are fair, equitable, and inclusive?	By incorporating discussions on ethical considerations, bias in algorithms, and the societal impact of AI, the course encourages students to develop a critical awareness of these...	Ethical AI and Social Justice	Hard

question	answer	category	difficulty
Imagine you are tasked with developing an AI system for a specific industry (e.g., healthcare, finance, education). How would you approach the challenge of identifying and defining the relevant...	This would involve understanding the specific needs and challenges of the industry, analyzing the available data, considering ethical and regulatory constraints, and collaborating with...	AI System Requirements	Hard

question	answer	category	difficulty
How does the Artificial Intelligence course contribute to students' understanding of the limitations and potential pitfalls of AI technologies, promoting a realistic and balanced...	By exploring the ethical challenges, potential biases, and limitations of current AI techniques, the course encourages students to develop a critical understanding of the field, avoiding hype...	Limitations and Pitfalls of AI	Medium

question	answer	category	difficulty
Reflecting on the course's emphasis on communication skills, how does the ability to effectively communicate technical information about AI contribute to building trust and...	Clear and accessible communication about AI systems, their capabilities, limitations, and potential impacts, is essential for fostering trust, transparency, and informed decision-making...	AI Communication and Trust	Medium

question	answer	category	difficulty
Looking beyond the technical aspects of AI, how might the Artificial Intelligence course inspire students to consider the broader humanistic implications of AI and its potential impact on...	Discussions on the philosophical implications of AI, the role of AI in art and creativity, and the potential for AI to augment human capabilities can encourage students to reflect on the deeper human...	AI and Humanistic Implications	Hard

question	answer	category	difficulty
How might the Artificial Intelligence course contribute to students' development as 'responsible AI practitioners' who prioritize ethical considerations, societal impact, and human...	By emphasizing ethical AI development, fostering critical thinking about societal implications, and encouraging students to consider the broader impact of their work, the course can instill a...	Responsible AI Practice	Hard

question	answer	category	difficulty
Given the rapid pace of advancements in AI, how does the Artificial Intelligence course equip students with the skills and mindset to engage in continuous learning and professional development...	By emphasizing foundational concepts, fostering a growth mindset, and highlighting the importance of staying updated with the latest research and trends, the course prepares students for a...	Lifelong Learning in AI	Medium