Vision

A university committed to Exemplary Christian Education for Life (EXCEL) and responsive to the need of the total person and the world.

Mission

The mission of Central Philippine University is to carry out a program of spiritual, intellectual, moral, scientific, technological and cultural training and allied studies under influences which strengthen Christian faith, build up character and promote scholarship, research and community services.

Institutional Outcomes (IOs)

In three to five years after graduation, graduates of Central Philippine University shall:
1. Practice professionalism with integrity and demonstrate Christ-like character.
2. Demonstrate patriotism and be law-abiding citizens
3. Use responsibly God-given talents, skills, and resources to promote well-being and productivity of communities and society.
4. Demonstrate technological competence in the practice of profession
5. Demonstrate continuous effort to grow professionally

Program Educational Objectives (PEO) and its Relationship to CPU's Institutional Outcomes

PROGRAM EDUCATIONAL OBJECTIVES(PEO) Within four years after graduation, alumni of the **Computer Science Department** shall:	**IOs**				
	1	**2**	**3**	**4**	**5**
1. Exhibit skills, knowledge and leadership to excel in their information technology careers and related discipline.			✓	✓	✓
2. Exhibit high standard of professionalism who are effective members of multi-discipline development teams.	✓	✓		✓	
3. Involved in scholarly activities, research and outreach that contributes to the improvement and transformation of society.	✓	✓	✓	✓	✓
4. Demonstrate ethical, professional, spiritual values, and social responsibility associated with their Information Technology careers and related professions.	✓		✓		
5. Exhibit proficiency in the use of traditional and digital media arts, designing, developing and implementing digital media solutions in fields of entertainment and corporate environments.		✓		✓	

PROGRAM OUTCOMES for Bachelor of Science in INFORMATION TECHNOLOGY

Common to all programs in all types of schools

The graduates have the ability to

a) articulate and discuss the latest developments in the specific field of practice.   (Philippine Qualifications Framework (PQF) level 6 descriptor) (Graduate Outcomes: CS 10, IS 10, IT13).
b) effectively communicate orally and in writing using both English and Filipino (Graduate Outcomes: CS08, IS 08, IT10).
c) work effectively and independently in multi-disciplinary and multi-cultural teams. (PQF level 6 descriptor) (Graduate Outcomes: CS07, ISO7, IT08).
d) act in recognition of professional, social and ethical responsibility (Graduate Outcomes:CS09, IS09, IT12)
e) preserve and promote "Filipino historical and cultural heritage" (based on RA 7722).

Common to the discipline

The graduates of BSCS, BSIS, and BSIT must have the ability to

a) analyze complex problems, and   identify and   define the computing requirements needed to design an appropriate solution (Graduate Outcomes:CS02, 1S02-03, IT03).
b) apply computing and other knowledge domains to address real-world problems (Graduate Outcomes: CS 01, IS 01, IT01).
c) design and develop computing solutions using a system-level perspective (Graduate Outcomes: CS03-05, 1S04-05, IT05).
d) utilize modern computing tools (Graduate Outcomes: CS05, IS05, IT07).

Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.

Specific to a sub-discipline

Graduate Outcomes Code	Graduate Outcomes
IT01	Apply knowledge of computing, science, and mathematics appropriate to the discipline.
IT02	Understand best practices and standards and their applications.
IT03	Analyze complex problems, and identify and define the computing requirements appropriate to its solution.
IT04	Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
IT05	Design, implement, and evaluate computer-based systems, processes, components, or programs to meet desired needs and requirements under various constraints.
IT06	Integrate IT-based solutions into the user environment effectively.
IT07	Apply knowledge through the use of current techniques, skills, tools and practices necessary for the IT profession.
IT08	Function effectively as a member or leader of a development team recognizing the different roles within a team to accomplish a common goal.
IT09	Assist in the creation of an effective IT project plan.
IT10	Communicate effectively with the computing community and with society at large about complex computing activities through logical writing, presentations, and clear instructions.
IT11	Analyze the local and global impact of computing information technology on individuals, organizations, and society.
IT12	Understand professional, ethical, legal, security and social issues and responsibilities in the utilization of information technology.
IT13	Recognize the need for and engage in planning self-learning and improving performance as a foundation for continuing professional development.

Program Outcomes (PO) related to the course and its Relationships to Program Educational Objectives (PEO)

PEO / PO	Common to all programs in all types of schools					Common to the discipline				Program Outcomes												
	a	b	c	d	e	a	b	c	d	IT01	IT02	IT03	IT04	IT05	IT06	IT07	IT08	IT09	IT10	IT11	IT12	IT13
1. Exhibit skills, knowledge and leadership to excel in their information technology careers and related discipline.	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓				
2. Exhibit high standard of professionalism who are effective members of multi-discipline development teams.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓				
3. Involved in scholarly activities, research and outreach that contributes to the improvement and transformation of society.		✓	✓			✓	✓	✓	✓									✓	✓	✓		
4. Demonstrate ethical, professional, spiritual values, and social responsibility associated with their Information Technology careers and related professions.	✓			✓		✓	✓	✓	✓	✓		✓				✓						✓
5. Exhibit proficiency in bridging and merging traditional and digital media arts, designing, developing and implementing digital media solutions in fields of entertainment and corporate environments.	✓	✓	✓	✓		✓	✓	✓	✓									✓		✓	✓	✓	✓

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COURSE INFORMATION

Course Code :   CCS 1301
Course Title :   Data Structure and Algorithms
Course Description :   This course covers the standard data representation and algorithms to solve computing problems efficiently (with respect to space requirements and time complexity of algorithm). This covers the following: Stacks, Queues, Trees, Graphs, Maps, and Sets. Thorough discussion of sorting and searching algorithms and hashing is covered.

Pre-requisite   CCS 1400, (CCS 1000)
Credit   3 units   Lecture: 2 units   Laboratory: 1 unit
Class Schedule

682	CCS 1301	LAB	1000	1300	M	MTCL5	Baylon, Gleason Barinos
682	CCS 1301	LEC	1100	1300	W	MT210	Baylon, Gleason Barinos
683	CCS 1301	LAB	1300	1600	T	MTCL3	Baylon, Gleason Barinos
683	CCS 1301	LEC	1400	1600	W	MT210	Baylon, Gleason Barinos
686	CCS 1301	LAB	700	1000	W	MTCL5	Baylon, Gleason Barinos
686	CCS 1301	LEC	1000	1200	F	MT210	Baylon, Gleason Barinos
691	CCS 1301	LAB	700	1000	F	MTCL5	Baylon, Gleason Barinos
691	CCS 1301	LEC	1400	1600	F	MT210	Baylon, Gleason Barinos
692	CCS 1301	LAB	1300	1600	Th	MTCL3	Baylon, Gleason Barinos
692	CCS 1301	LEC	1000	1200	T	MT210	Baylon, Gleason Barinos
693	CCS 1301	LAB	1600	1900	M	MTCL3	Baylon, Gleason Barinos
693	CCS 1301	LEC	1000	1200	Th	MT210	Baylon, Gleason Barinos
705	CCS 1301	LAB	1000	1300	F	MTCL5	GUILOREZA, REA FAYE JOY SIMBRE
705	CCS 1301	LEC	1400	1600	F	TBA	GUILOREZA, REA FAYE JOY SIMBRE
707	CCS 1301	LAB	1000	1300	W	MTCL5	Oñate, Vince Val Balasbas
707	CCS 1301	LEC	1500	1700	Th	MT210	Oñate, Vince Val Balasbas

Instructor

Instructor Name: Gleason B. Baylon, MSCS   Office: College of Computer Studies Faculty Room - MT 201
Tel No. (033) 3291971 loc. 2119/ 2120   Email Address: gbbaylon@cpu.edu.ph
Consultation Time/ Day: M 13:00-16:00; TTH 12:00-13:00 ; W 13:00-14:00

Instructor Name: Vince Val B. Oñate   Office: College of Computer Studies Faculty Room - MT 201
Tel No. (033) 3291971 loc. 2119/ 2120   Email Address: vvbonate@cpu.edu.ph
Consultation Time/ Day: M 13:00-17:00

Instructor Name: Atty. Rea S. Guiloreza   Office: College of Computer Studies Faculty Room - MT 201
Tel No. (033) 3291971 loc. 2119/ 2120   Email Address: rfjsguiloreza@cpu.edu.ph
Consultation Time/ Day: F 16:.00-17:00

Course Coordinator
Rose Leah Joy A. Ojacastro, MSCS   Consultation Time/Day: MWF 1:00-4:00
Course Coordinator, BSIT   Rm: CCS Faculty Room - MT 101
Email Address: rljojacastro@cpu.edu.ph

> Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.

Learning Outcomes (LO) and Relationship to Program Outcomes (PO)
(course outcomes may be taken from CMOs definition of course objectives)

Learning Outcomes	Common to all programs in all types of schools					Common to the discipline				Program Outcomes									
	a	b	c	d	e	a	b	c	d	CS01	CS02	CS03	CS04	CS05	CS06	CS07	CS08	CS09	CS10
LO1. Design, implement, test, and debug a program based on a given specification that uses and implements abstract data types (stacks, queues, sets, maps)	✓		✓			✓	✓	✓	✓	✓	✓	✓		✓	✓				
LO2. Argue strengths and weaknesses among multiple implementations for a problem (i.e. on the aspects of iterative vs. recursive solutions and on the aspects of abstraction, encapsulation and information hiding).	✓		✓			✓	✓	✓	✓	✓	✓	✓		✓	✓				

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COURSE COVERAGE

LECTURE

Time Frame	Desired Learning Outcome/s	Course Content/ Subject Matter	Textbook/ References	Teaching and Learning Activities	Assessment Task	Assessment Tool
Week 1	LO2	**Chapter 0: Data Structures and Abstract Data Types** **Chapter 1: Introduction to Abstract Data Types** • Explain the theory of ADTs and its relation to data structure. • Discuss the principles of Stacks and Queues	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz	Assignment Rubric Quiz answer key
Week 2-3	LO1 LO2	**Chapter 2: Arrays** • Types of Lists Elements • Class ArrayListClass • Unordered Lists • Class Vector	T1,T2,T3, R1	Lecture Discussion	Library task Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 4-5	LO1 LO2	**Chapter 3: Linked Lists** • Linked Lists Properties • Item Insertion and Deletion • Building Linked Lists Linked Lists as ADT's • Doubly Linked Lists	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 5	LO2	**Chapter 4: Stacks and Queues** • Stack exception class • Implementation of Stacks as Arrays • Linked Implementation of Stacks • Stack as derived from class • LinkedListClass • Removing Recursion • Queue exception class • Application of Stacks and Queues	T1,T2,T3, R1	Lecture Discussion	Library task Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric

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Week 6		**Prelim Examination**				
Week 7	LO2	**Chapter 5: Binary Trees** • Types of Binary Trees • Properties of Binary Trees • Structure of Binary Trees • Operations on Binary Trees • Binary Tree traversals • Binary Search Trees	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 8-9	LO1 LO2	**Chapter 6: Balanced Binary Search Trees(AVL Trees)** • Properties of AVL Trees • Structure of AVL Tree • AVL tree rotations	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 10	LO2	**Chapter 7: Binary Search Trees(Red-Black Trees)** • The logic of Red-Black trees • Re-coloring and Rotation cases • Red-black tree illustrations • Comparison of Red-black trees and AVL trees	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 11	LO2	**Chapter 8: Heaps** • Introduction to priority queues • Heap basics • Heap introduction – array representation • Heap introduction – remove operation • Using heap data structure to sort • Heap introduction – operations complexities • Binomial and Fibonacci heaps	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 12		**Midterm Examination**				
Week 13	LO2	**Chapter 9: Associative Arrays(Dictionaries)** • Introduction to	T1,T2,T3, R1		Assignment	Assignment rubric

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Date of Effectivity: 2ND Semester 2024-2025	Revision No. 1 Revision Date: January 2025	Prepared by: **Gleason B. Baylon, MSCS Instructor**	Approved by: R. L. J. A. Ojacastro, MSCS Dept Head, BSIT	M. C. A. QUIJANO, MSCS Dean	Page **6** of **14**

					Lecture Discussion	Quiz Laboratory activity	Quiz answer key Laboratory activity rubric
		associative arrays • Hash table introduction – collisions • Hash table introduction – dynamic resizing					
Week 13	LO1 LO2	**Chapter 10: Graph Algorithms** • Graph theory overview • Adjacency matrix and adjacency list • Applications of graphs	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 14	LO2	**Chapter 11: Graph Traversal Algorithms** • Breadth-first search introduction • Introduction to web crawlers • Depth-first search introduction • Uniform cost search algorithm • A * search algorithm • Iterative deepening search • Memory management BFS vs. DFS	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 15	LO2	**Chapter 12: Graph Algorithms – Shortest paths with Dijkstra's Algorithm** • Discussion of the shortest path problem • Dijkstra algorithm visualization • Dijkstra algorithm implementation • Dijkstra algorithm with adjacency matrix implementation • Adjacency matrix representation implementation	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 16	LO2	**Chapter 13: Graph Algorithms – Shortest paths with Bellman-Ford Algorithm** • Introduction to Bellman-Ford	T1,T2,T3, R1		Assignment	Assignment rubric

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Week	LO	Content		Methods	Assessment	Tools
		algorithm • Bellman-Ford algorithm visualization • Bellman-Ford algorithm implementation • Greedy algorithm or dynamic programming approach		Lecture Discussion	Quiz Laboratory activity	Quiz answer key Laboratory activity rubric
Week 17	LO2	**Chapter 14: Graph Algorithms – Spanning Trees with Kruskal Algorithm** • Disjoint set data structure • Disjoint sets visualization • Kruskal's algorithm introduction • Kruskal's algorithm implementation – basic classes • Kruskal's algorithm implementation – disjoint set • Kruskal's algorithm implementation – algorithm • Kruskal's algorithm implementation testing	T1,T2,T3, R1	Lecture Discussion	Assignment Quiz Laboratory activity	Assignment rubric Quiz answer key Laboratory activity rubric
Week 18	**Final Examination**					

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LABORATORY ACTIVITIES / REPORTS

Time Frame	Desired Learning Outcome/s	Course Content/ Subject Matter	Textbook / References	Teaching and Learning Activities	Assessment Task	Assessment Tool
Week 1	LO 1 LO 2	Orientation/ Introduction Course Syllabus and Policies	T1,T2,T3, R1	Laboratory Discussion		
Week 2	LO 1 LO 2	Installing Python and PyCharm on Windows	T1,T2,T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity - Electrical, Electronics Components and Accessories	Rubric for Laboratory Activity
Week 3	LO 1 LO 2	Reversing an array in-place	T1,T2,T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity - Analog Multi-meter (VOM)	Rubric for Laboratory Activity
Week 4	LO 1 LO 2	Palindrome problem	T1,T2,T3, R1	Laboratory Discussion Problem Solving	Problem Set	Checklist
Week 5	LO 1 LO 2	Finding the middle node in a linked list	T1,T2,T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity - Ohm's law, Resistors and Color Code	Rubric for Laboratory Activity
Week 6	Prelim Examinations (Lecture)					
Week 7	Prelim Examinations (Laboratory)					
Week 8	LO 1 LO 2	Reverse a linked list in-place	T1,T2,T3, R1	Laboratory Discussion Problem Solving	Laboratory Activity - Series Circuits and Potentiometer	Rubric for Laboratory Activity
Week 9	LO 1 LO 2	Finding the maximum value in a stack	T1,T2,T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity – Parallel Circuits	Rubric for Laboratory Activity

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Week 10	LO 1 LO 2	Implementing queue using a stack	T1,T2,T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity – Series Parallel Circuits	Rubric for Laboratory Activity
Week 11	Midterm Examinations (Laboratory)					
Week 12	Midterm Examinations (Lecture)					
Week 13	LO 1 LO 2	Binary search trees (tree traversal problems)	T1,T2, T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity – Series Parallel Circuits	Rubric for Laboratory Activity
Week 14	LO 1 LO 2	Binary search trees (tree rotation problems)	T1,T2, T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity – Series Parallel Circuits	Rubric for Laboratory Activity
Week 15	LO 1 LO 2	Graph theory problems	T1,T2, T3, R1	Laboratory Discussion Problem Solving Simulation	Laboratory Activity – Series Parallel Circuits	Rubric for Laboratory Activity
Week 16	LO 1, LO 2, LO 3, LO 4			Design Project		
Week 17	Design Project Presentation					
Week 18	Final Examinations (Lecture)					

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TEXTBOOK:
T1: Computer Science, Algorithms and Complexity by Adele Kumiakova (Copyright 2021)
T2: Data Structures and Algorithms Made Easy by Narasimha Karumanchi (Copyright 2017)
T3: Problem Solving with Algorithms and Data Structures using Python By Brad Miller and David Ranum, Luther College (2023)

REFERENCES available at CPU's Main Library
Aspnes, J. (2021), Notes on Data Structures and Programming Techniques (CPSC 223, Spring 2021)
Needham, M., Hodler, A. E.(2019). Graph Algorithms: Practical examples in Apache Spark and Neo4j. (O'reilly Media)
3 Bullinaria, J.(2019). Lecture notes for: Data Structure and Algorithms.
https://www.cs.bham.ac.uk/~jxb/DSA/dsa.pdf

COURSE EVALUATION

Assessment Method	Weights		TRANSMUTATION TABLE	
I. LECTURE		40%	98-100	1.00
A. Quizzes, Assignment	25%		98-100	1.00
B. Prelim Examinations	15%		95 -<97	1.25
C. Midterm Examinations	20%		92 -<94	1.50
D. Final Examinations	25%		89 -<91	1.75
E. Other Requirements (Project/Seatwork/Board work/Recitation, etc)	15%		86 -<88	2.00
TOTAL	**100%**		83 -<85	2.25
II. LABORATORY		60%	80 -<82	2.50
A. Laboratory Experiments	25%		77 -<79	2.75
B. Prelim Practical Examinations	15%		75 -<76	3.0
C. Midterm Examinations	20%		BELOW 75	5.0
D. Final Examinations	25%			
E. Other Requirements / Project	15%			
TOTAL	**100%**	**100%**		
PASSING MARK 65%				

$$\text{Transmuted Value} = \frac{\text{General Weigthed Average} - \text{Passing Mark}}{100 - \text{Passing Mark}} \text{ x } 25 + 75$$

(Transmuted value of the final grade should be rounded off to the nearest whole number)

- Students with incomplete (INC) grade and no other subjects enrolled must enroll for academic residency during the succeeding semester/s until he/she completes the requirement, but not to exceed one year, otherwise, the student must reenroll the course. **The official date of graduation of students with INC mark will be after compliance of the requirements in the residency period.**

- Students who **missed** the **scheduled Prelim, Midterm or Final Examination** should take the special exam within ten (10) school days after the last day of the scheduled major exam, otherwise the missed exam shall automatically be given a score of zero equivalent to a grade of **5.0**.

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EVALUATION RUBRIC FOR LABORATORY ACTIVITIES/PRACTICAL EXAMS/PROJECT

	1	2	3	4	Score
Accuracy (40%)	The process and the output are both incorrect. (10 pts.)	The process used is incorrect but the output is correct. (20 pts.)	The process used is correct but the output is incorrect. (30 pts.)	The process used and the numerical output is correct. (40 pts.)	

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Efficiency (30%)	Less than 50% of the correct output is generated within the specified time. (10 pts.)	50% of the correct output is generated within the specified time. (15 pts.)	75% of the correct output is generated within the specified time. (20 pts.)	100% of the correct output is generated within the specified time. (30 pts.)	
Presentation of Output (30%)	The output cannot be interpreted. (10 pts.)	The interpretation of the output is a challenge. (15 pts.)	The output requires some knowledge to interpret. (20 pts.)	The output can easily be interpreted. (30 pts.)	

Classroom Policies

1. **Accessibility**. Everyone has an equal right to be educated efficiently and comfortably. Students with disabilities are encouraged to discuss their individual needs and accommodations (e.g. sitting in front for those with visual or hearing problems, objection to coloured visual aids for the colour blind.)
2. **Collaboration**. You are encouraged to do group study since it is usually more effective than studying alone. However, try to do homeworks and individual laboratories by yourself first. After all, you're all by yourself during exams. If you're stuck for 30 to 45 minutes or so, get help from your classmates, and make sure to acknowledge them in your deliverable. This will not affect your grade, but it's the professional and polite thing to do. Strictly no collaboration of any form during quizzes and major exams (obviously). Likewise, asking other people to do your work for you is not considered as a collaborative effort, but is a form of academic dishonesty.
3. **Absences**. Absences are counted starting with absence from the first day of class for the semester. You are required to submit an excuse slip for every absence made. However, you cannot be readmitted to class after the fourth absence unless you present an approved readmission slip. If you report to class 15 minutes after the second bell, you will be marked absent. Allowed number of absences is not more than 20% of the required number of class hours.
4. **Make-up Works**. Make-up works are only possible on major exams and laboratories. Make sure the reason for not taking exams or attending laboratory sessions on time is acceptable (e.g. illness, family emergency), and is supported by valid proof. You will not be allowed to take make-up exams without excuse slips or exam permits. Make-up will be given a week before final exam.
5. **Deadlines**. Deliverables not submitted on or before the deadline due to unacceptable reasons (e.g. poor time management) will not be considered for giving incomplete grade. Late work will receive a 10% deduction for each day late after the deadline, not including weekends and holidays. In a way, you'll receive a zero if your work is 10 days late, since you'll be having a 100% penalty.
6. **Group Grade**. For group work, your individual grade is based on the rubrics.
7. **Dress Code**. Students must come to class following the university guidelines on dress code or the college schedule of uniform.
8. **Examinations**. Use only either black or blue ink ballpens or signpens that don't blot. Use short-size bond paper or newsprint or CPU blue book for solutions and answers on one side of the paper only (portrait).
9. **Plagiarism**. Don't copy material (e.g. text, images, source codes, videos for presentations) from any website or printed materials such as books, and submit them as if they were your own work. Always cite your sources. Not doing so is unethical, and is a form of academic dishonesty. If you borrow someone else's idea, and rephrase them with your own words, it's still not your idea, and you should still cite your sources.
10. **Academic Dishonesty**. All forms of dishonest work will not be tolerated, and will have severe and immediate consequences. Examples of such acts are copying the works of a classmate, leaking your solutions to your classmates, having someone else write your code for you, copying solutions from the Internet, or opening your exercises and past projects during a quiz or major examination. You are only allowed to use the Internet to browse API/library docs, unless specifically instructed not to do so.
11. **Cell Phones and other Gadgets**. Cell phones and other gadgets must be turned off or put in silent mode while in class and during exams.
12. **Exam Papers.** All exam papers will be returned to students within ten (10) days from the day of examinations.
13. **Exam Permits**. Students should submit examination permits to the proctor during examination periods.
14. **Removal Exam**. If necessary, removal exams may be given within two (2)weeks after the final exam.
15. **Faculty Attendance**. Late (15 minutes after the second bell) and absent faculty members must be reported immediately to the Office of the Dean.
16. Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.

ONLINE LEARNING POLICIES

Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.

1. **Schedule and Duration of Classes.** The schedule of classes will be based on the approved schedule. A course Study Guide will be provided that will indicate a detailed time allotment for each Module (Sessions and Activities).
2. **Class Sessions.** The conduct of class session will be 60% synchronous session and 40% asynchronous session.
3. **Attendance.** Students are required to be present in the synchronous sessions. A student may be dropped from the program if he/she has been absent for 50% of the total number of synchronous sessions. However,
   a. for students who are unable to attend the synchoronous session, materials equivalent to the session will be provided such as recorded session, electronic materials and printed materials that can be mailed to the student.
   b. a student shall communicate to the faculty any concern with connectivity for arrangement of requirements.
   c. gross or excessive failure of student to comply with the requirements during the time frame posted by the instructor may result to the dropping from the course.
5. **Make-up Works**. Make-up works are only possible on major exams and laboratories. Make sure the reason for not taking exams or attending laboratory sessions on time is acceptable (e.g. illness, family emergency), and is supported by valid proof. You will not be allowed to take make-up exams without excuse slips or exam permits. Make-up will be given a week before final exam.
6. **Deadlines**. Deliverables not submitted on or before the deadline due to unacceptable reasons (e.g. poor time management) will not be considered for giving incomplete grade. Late work will receive a 10% deduction for each day late after the deadline, not including weekends and holidays. In a way, you'll receive a zero if your work is 10 days late, since you'll be having a 100% penalty.
7. **Group Grade**. For group work, your individual grade is based on the rubrics.
8. **Netiquette.** Students must observe appropriate and proper behaviour during online class.
9. **Mental Health Day.** No giving and submission of academic works on Mental Health day as defined by the university.
10. **Cheating.** To reduce incidence of cheating, the instructor will be implementing timed assessements or examinations, wherein major examination will be given a maximum time allotment of two (2) hours for pure lecture, three (3) hours for hands-on examination and a minimum of fifteen (15) minutes for quizzes. During the assessment or examination a student will be required to turn on his or her camera.
11. **Academic Dishonesty**. All forms of dishonest work will not be tolerated, and will have severe and immediate consequences. Examples of such acts are copying the works of a classmate, leaking your solutions to your classmates, having someone else write your code for you, copying solutions from the Internet, or opening your exercises and past projects during a quiz or major examination. You are only allowed to use the Internet to browse API/library docs, unless specifically instructed not to do so.
12. **Plagiarism.** Don't copy material (e.g. text, images, source codes, videos for presentations) from any website or printed materials such as books, and submit them as if they were your own work. Always cite your sources. Not doing so is unethical, and is a form of academic dishonesty. If you borrow someone else's idea, and rephrase them with your own words, it's still not your idea, and you should still cite your sources.
13. **Exam Permits**. Students should submit examination permits to the proctor during examination periods.
14. **Removal Exam**. If necessary, removal exams may be given within two (2) weeks after the final exam.
15. **Faculty Attendance**. Absent faculty members must be reported immediately to the Office of the Dean through the email ccssec@cpu.edu.ph.
16. **Data Privacy.**
    a. All information pertinent to the students shall be handled with utmost confidentiality. Data Privacy Law must be properly observed in handling online class.
    b. Recording of video conferences may be done only if the students and participants of the conferences agreed to the recording.
    c. Any recording submitted as a form of requirement should not be shared publicly without the expressed permission of the student.
17. Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.

LABORATORY SAFETY
The laboratory room is a dangerous place. Obey the instruction given by your instructor during the performance of the laboratory to avoid accidents. Safety instructions are placed on the wall for your guidance.

EMERGENCY PROCEDURES
1. Emergency ambulance – from any telephone in the offices within the campus, dial 2103 to get in touch with the security office.
2. Campus security – dial 2103

> Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.

The College of Computer Studies Standard of Academic Integrity

In consonance with the University's vision of Exemplary Christian Education for Life (EXCEL), in support of her objective to produce graduates who demonstrate Christian character and of the College's educational objective to produce alumni who exhibit ethical values and professionalism, the College enjoins all Computer Studies students to pursue scholarly activities in an honest, ethical and moral way. Specifically, they are expected not to commit nor tolerate acts such as, but not limited to cheating, plagiarism, falsification, forgery, bribery or misuse of university resources which undermine academic integrity.
(When a student is suspected of cheating, plagiarism, falsification, and/or other forms of academic dishonesty, appropriate disciplinary action may be taken after due process.)

Statement of Commitment

As a student of the CPU College of Computer Studies, I recognize that I am a part of a community that espouses Christian values, academic excellence and highest level of professionalism. I therefore commit myself to support these quality policy and uphold to the best of my ability, the College of Computer Studies Standard of Academic Integrity. I will claim ownership only for work output which is truly my own; I will give appropriate credit where credit is due; I will use resources provided with care; and I will choose to be fair and honest in all of my dealings.

_____
Signature over Printed Name of Student

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Date

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APPROVED: January 2025

Students are strongly encouraged to take advantage of instructor's consultation hours for help with coursework or anything else connected with the course and their progress.