



De La Salle University  
College of Computer Studies  
Computer Technology Department

Course Code	:	<b>CCICOMP</b>
Course Title	:	INTRODUCTION TO COMPUTING
Type of Course	:	Foundation
Pre-requisites	:	N/A
Co-requisite	:	N/A
Pre-requisite to	:	CSNETWK, CSARCH1, ITNET01, LBYITN1, ITCMSY1, LBYCMSY
Term / Academic Year	:	1 <sup>st</sup> , 2023-2024
Class Schedule	:	
Instructor	:	
Consultation Hours	:	
Course Site / Repository	:	AnimoSpace
Course Group	:	AnimoSpace

**Course Description**

This course introduces the Information, Communication and Technology industry to students of Computer Science, Information Systems, and Information Technology. Lectures and activities will focus on understanding the basic concepts of computing, emphasizing the synergy between computer hardware and software components. Students will learn how a computer works, the role of operating system and applications, and how computers connect to the internet. The course ends with a seminar on the ethical responsibilities expected from a computer professional.

**Learning Outcomes (LO)**

Upon completion of this course, the student is expected to be able to do the following:

Expected Lasallian Graduate Attributes	Learning Outcomes
Effective Communicator	<b>LO1.</b> Communicate computing concepts effectively and confidently, in both written and spoken form.
Critical and Creative Thinker	<b>LO2.</b> Apply knowledge of computing fundamentals to assemble a personal computer, install an operating system, and setup a SOHO network.
Reflective Lifelong Learner	<b>LO3.</b> Critically evaluate and reflect on own assumptions, values, thinking, performance, and aspirations in formulating an independent learning plan as computing technology student.

**Major Course Outputs (MCO)**

Students are expected to complete summative and formative assessments, do laboratory activities, submit reports, attend seminars, and participate in online discussions.

**Grading System**

To pass this course, one must accumulate at least **70** points through the course requirements discussed below.

Assessment Task	Maximum Points
Midterm Examination	20
Final Examination	20
Problem Sets	15
Lab Activities	25
Seminar	5
Class Participation	10
Attendance	5
<b>TOTAL POINTS</b>	<b>100</b>

GPA	Raw Ave.
4.0	97.00 - 100
3.5	93.00 – 96.99
3.0	89.00 – 92.99
2.5	85.00 – 88.99
2.0	80.00 – 84.99
1.5	75.00 – 79.99
1.0	70.00 – 74.99
0.0	0.00 – 69.99

Teaching Methods/Strategies

- 1. Lectures and discussions
- 2. Reading assignments
- 3. Exercises, problem sets, and seatwork
- 4. Assessment

Learning Plan

Week	Topics and Readings	LOs
1	1.0 <b>Course Orientation</b> Syllabus, Requirements, Class Policies  2.0 <b>ICT and Society</b> 2.1. Impact of ICT in our changing world 2.2. The role of ICT in various domain 2.3. The different computing disciplines	LO1, LO3
2-5	3.0 <b>Data Types: representation and operation</b> 3.1. Computers, Data, and Information 3.2. Base- <i>n</i> Number System: representation, conversion, arithmetic operations 3.3. Fixed-point numbers 3.3.1. Unsigned number representation 3.3.1.1. Integers 3.3.1.2. Fractions 3.3.2. Signed number representation 3.3.2.1. Sign and magnitude 3.3.2.2. One's complement 3.3.2.3. Two's complement 3.4. Floating-point numbers representation 3.4.1. IEEE Single Precision 3.4.2. IEEE Double Precision 3.5. Boolean 3.5.1. Logic gates: NOT, AND, OR, XOR 3.5.2. Bitwise operation 3.6. Characters and Strings	LO1
6	<b>Midterm Examination</b> <b>October 14, 2023, Sat 9-12, F2F</b>	
7-8	4.0 <b>Computer Hardware Components</b> 4.1. Processor (stored program architecture, machine cycle, system clock and clock rate, ALU, CU) 4.2. Memory (RAM, ROM, cache, flash memory, access time) 4.3. Storage (magnetic, optical, tapes, enterprise storage, cloud) 4.4. Motherboard: heatsink and fan, chipset, ports and connectors, buses, bays, power supply 4.5. Input devices 4.6. Output devices	LO2
9	<b>Independent Learning Week</b>	
10	5.0 <b>Computer Software Components</b> 5.1. Operating Systems and Utility Programs (functions of OS, types of OS, utility programs) 5.2. Application software 5.3. Web-based applications 5.4. Programming software (compilers, interpreters, assemblers, programming languages)	LO2
11-12	6.0 <b>Internetworking</b> 6.1. Types of networks (LAN/WLAN, WAN, Internet) 6.2. Communication and networking 6.2.1. Transmission media (coax, UTP, fiber, radio) 6.2.2. Wireless router/AP 6.2.3. PCs, printers, shared storage, other devices that connects to the network 6.2.4. Service Providers 6.2.5. IP address and subnet mask	LO2
13	<b>Seminar</b> <b>December 2, 2023, Sat 9-12, F2F</b>	
14	<b>Final Examination</b>	

Laboratory Activities

Week No.	Activity
1	Lab Orientation
2	Problem Set (Group A)
3	Problem Set (Group B)
4	Lab Activity #1 – Logic gates and application (Group A)
5	Lab Activity #1 – Logic gates and application (Group B)
6	No lab meeting due to MIDTERM EXAM
7	Lab Activity #2 – Assemble your own PC (Group A)
8	Lab Activity #2 – Assemble your own PC (Group B)
9	Independent Learning Week – Problem Set (asynchronous activity) due on Nov 9
10	Lab Activity #3 – OS Installation and Basic CLI Commands (Group A)
11	Lab Activity #3 – OS Installation and Basic CLI Commands (Group B)
12	Lab Activity #4 – LAN Setup using Packet Tracer (Group A)
13	Lab Activity #4 – LAN Setup using Packet Tracer (Group B)
14	No lab meeting due to FINAL EXAM

References

- United Nations Conference on Trade and Development (2023) **Technology and Innovation Report 2023 Opening Green Windows: Technological Opportunities for a Low-carbon World**, United Nations Conference on Trade and Development (UNCTAD) Technology and Innovation Report (TIR) Overview version [https://unctad.org/system/files/official-document/tir2023overview\\_en.pdf](https://unctad.org/system/files/official-document/tir2023overview_en.pdf)
- ACM Computing Curricula 2020
- Evans, A. and Martin, K. (2024) **Technology in Action**, 18<sup>th</sup> Ed., Pearson

General Policies

- Any requirements submitted for grading should reflect individual work effort and intellectual honesty.
- Group projects submitted for grading should reflect group work effort and intellectual honesty. It is assumed that each member of the team contributes equally to the group project.
- Anybody caught cheating or violating intellectual honesty will be subject to appropriate disciplinary action.
- All deliverables should be submitted on or before the deadline.
- Course materials such as presentation slides and laboratory manuals are copyrighted materials. It is a violation of copyright law for a student to upload course materials to a third-party website such as CourseHero or StudyBlue, without the instructor's permission. Anybody caught violating this policy will be subjected to disciplinary and legal action.

Prepared by:

Ms. Jocelynn Cu  
CCICOMP Subject Coordinator

Approved by:

Dr. Marnel Peradilla  
Department Chair