

SDF 101

OBJECT-ORIENTED PROGRAMMING

83562/83588

WELCOME.

SCHEDULE

TUESDAY LEC

3:30 PM - 5:00 PM | LR1

WEDNESDAY LAB

10:30 AM - 1:30 PM | A202

DESCRIPTION

You will learn and apply the basic language syntax and principles of object-oriented programming to solve computational problems adhering to the standards and guidelines of documentation.

ORIENTATION

SCHOOL VMOC

- Vision
- Mission
- Objectives
- Core Values

CCS VMO

- Vision
- Mission
- Core Values

COURSE DETAILS

- Course Details
- Learning Outcomes
- Course Outline
- Course Outputs

GRADING SYSTEM

CLASSROOM POLICIES

CONSULTATION HOURS

SPC VISION

St. Peter's College, a school founded in 1952 in Iligan City, is a leading institution in providing quality education infused with technology, research, community extension, environmental preservation and internationalization.

SPC MISSION

Our mission is to provide a holistic and transformative education that equips students with knowledge, skills, values and strong character to become globally competitive individuals. We aim to nurture intellectual curiosity, critical thinking, social responsibility and moral integrity through innovative practices and collaborative partnerships with the community.

INSTITUTIONAL OBJECTIVES

St. Peter's College ENDEAVORS to the following:

- Assure its clientele by providing programs and quality instruction augmented by information and communication technology;
- Conduct Researches in relation to activities that promote the attainment of institutional outcomes as well as cater to the needs of the community and of the industry;
- Commit to serve the community by implementing sustainable extension and outreach programs; and
- Cultivate the engineering entrepreneurial, technological, and instructional skills of the students as a railroad towards successful careers and to enhance the plans and programs of the institution.

CORE VALUES

St. Peter's College is guided by the founder's ingrained principles in executing its philosophy of education with the following values:

- **Excellence.** Uphold high standards of performance in all areas of academe.
- **Commitment.** Satisfy clients' demands by prompt, enthusiastic, professional, responsive, and prestigious services regardless personal wants.
- **Leadership.** Motivate and strengthen the constituents and feel responsible for identifying and accomplishing tasks.
- **Accountability.** Acknowledges and accepts responsibility for its actions in relation to established policies, procedures, and standards.
- **Perseverance.** The inner strength to remain constant to a purpose, idea, or task in the face of obstacles by means of dedication, consistency, and having a positive attitude.
- **Honest.** Open and honest in all dealings and maintain the highest integrity at all times.
- **Environmentalism.** Advocate sustainable management and protection of natural resources through influencing individual behavior.
- **Nationalism.** Have the dedication and loyalty in serving the interest of the nation.

CCS VISION

The College of Computer Studies aims to become a distinguished institution in the field of Computer Science and Information Technology, striving to educate and empower students to become successful, socially conscious, and competitive individuals.

CCS MISSION

The College is dedicated to delivering flexible and high-quality education programs in ICT (Information and Communication Technology) that equip students with the necessary knowledge and professional skills in Computer Science and Information Technology.

CORE OBJECTIVES

- To produce graduates who excel in Information Technology Education (ITE).
- To offer students innovative and relevant educational opportunities that enable them to acquire technical expertise in computational science, IT solution development, and management.
- To conduct valuable and high-quality research that contributes to technological advancements and intellectual growth in ITE.
- To provide suitable internships and practical experiences through partnerships with relevant industries, enhancing students' technical skills and preparing them to be competent professionals or proactive entrepreneurs.

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DESCRIPTION

This course allows the student to learn and apply the basic language syntax and principles of object-oriented programming to solve computational problems adhering to the standards and guidelines of documentation.

LEARNING OUTCOMES

- Compare and contrast procedural/ functional approach to object-oriented programming approach; and
- Design, implement, test and debug programs using OOP concepts like abstraction, encapsulation, inheritance and polymorphism.

COURSE OUTPUTS

- Design, implement, test and debug programs using OOP concepts like abstraction, encapsulation, inheritance and polymorphism.

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COURSE OUTLINE

PRELIM

Basic Java Setup and Syntax

- Getting started with Java (installing JDK, setting up IDE)
- Understanding basic Java syntax (variables, data types, operators)

Objects and Classes

- Understanding what objects and classes are
- How to create and use classes in Java

MIDTERM

Inheritance and Polymorphism

- Learning about inheritance and how it helps in code reuse
- Understanding polymorphism and its types (method overriding, method overloading)

Encapsulation and Abstraction

- Exploring encapsulation for data hiding and protection
- Understanding abstraction for simplifying complex systems

Control Flow

- Using if-else and switch statements for decision-making
- Learning loops (for, while, do-while) for repetitive task

Methods and Functions:

- Writing methods to perform specific tasks
- Understanding parameters and return types

SEMI-FINAL

Arrays and Collections

- Using arrays to store multiple values of the same type
- Introduction to collections (ArrayList, LinkedList) for managing groups of objects

Exception Handling

- Dealing with errors using try-catch blocks
- Understanding and creating custom exceptions

File Handling

- Reading from and writing to files using Java I/O

GUI Programming

- Basics of creating graphical user interfaces using JavaFX or Swing

FINAL

Multithreading:

- Introduction to threads and concurrent programming in Java

Database Connectivity:

- Basic usage of JDBC for connecting Java programs to databases

Testing and Debugging:

- Writing and running unit tests with JUnit
- Debugging Java programs using IDE tools

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GRADING SYSTEM

ITEM	PERCENTAGE
Class Interaction/ Assignment	15
Oral and written report/ Quizzes	25
Examination/ Research (Written and Oral Presentation–Individual/Group)	60
TOTAL	100%

ATTENDANCE

- Allowed number of absences in a whole semester is 7.
- Students are excused if they can provide an excuse letter.
- 3 consecutive tardiness will result to 1 absent.
- There will a 15-min waiting time before marking a student's attendance tardy
- Late arrivals should enter quietly to avoid disrupting the class.

CLASSROOM ENVIRONMENT

- CLAYGO
- No vandalism
- No liquids near the units
- Do not enter the laboratory room unless if the instructor is already inside or told you so.
- Gadgets are permitted to use but refrain from using social media, texting, or unrelated browsing during class.
- Support your classmates and create an inclusive environment.
- Report any instances of bullying, discrimination, or harassment immediately.

COMMUNICATION

- Check your messages (gc) and course platform regularly for announcements and updates.
- Contact the instructor during office hours or via email with any questions or concerns.

EXAM

- Special examinations will be allowed only in special cases, such as prolonged illness.
- Cheating, plagiarism, or any form of academic dishonesty will not be tolerated.

CONSULTATION HOURS

TUE & WED

9:00 AM - 12:00 NN

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📌 Lara Erika Montecillo

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