# Philadelphia University
# Faculty of Administrative and Financial Sciences
# Department of Networking and Systems Management

| Course Syllabus | |
|---|---|
| **Course title: Programming Language** | **Course code: (0371210)** |
| **Course level: First year** | **Course prerequisite (s) and/or co requisite (s): 0371105)** |
| **Lecture time:** | **Credit hours: (3) hours.** |

| Academic Staff Specifics | | | | |
|---|---|---|---|---|
| **Name** | **Rank** | **Office Number/ Location And Office Phone Number** | **Office hours** | **E-mail address** |
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**Course Description:**

In this course students are introduced to the basics of programming logic and to algorithm design and development, using the C++ programming language. Students learn topics common with the C++ programming language, such as variables, constants, expressions, control structures, functions pointers and arrays.

**Course Objective:**

Upon completion of this course, the student will be able to:

1. Learned the basics of programming logic and algorithm design
2. Learned the structure of a C++ program
3. Construct and develop elegant and efficient coded programs in C++,

**Teaching / Learning Methodology:**

Hands-On Lab, Lectures Notes, Slideshows, & Active Presentations
Technical Information and Practice Programs

**Learning Outcomes:**

- **Knowledge and understanding:**
  The data show is used to demonstrate practical exercise in the class to enable students see how it is done to save time and make lecture effective.

- **Cognitive skills (thinking and analysis).**
  - The lecturer will present the material in the text book in an interactive way that stimulates the thinking side of students.
  - Conducting the learning objectives for each module components in clear manner to insure the material is digested by the students.

- **Communication skills (personal and academic).**
  - For every lecture the last five minutes will be open for discussion. For further discussion, the students are welcome at the lecturer's office hour as appeared in first page.
  - Project Development: Groups of approximately two to three students develop projects, complete research, schedule meetings, write papers and reports, and deliver a 20-30 minute oral presentation using visual aids.
  - Group Management: Students work on group projects to practice interpersonal skills by communicating with group members, other groups, and peers outside the group.

**Assessment instruments**

- Short Reports and/or Presentations and/or Short Research Projects.
- Quizzes.
- Home works.
- Final examination.

| **Allocation of Marks** | | |
|---|---|---|
| **Assessment Instruments** | **Mark** | **Exam Date and Day** |
| First Examination | **20** | |
| Second Examination | **20** | |
| Final Examination | **40** | |
| Attendance, Quizzes, Home works, and Reports and/or Research | **20** | |
| Total | **100** | |

**Documentation and academic honesty**

This course is given from the textbook mentioned above. It is copyright protected. Students are encouraged to purchase this textbook from the university bookshop.

**Definition of Plagiarism**

Plagiarism is the unacknowledged borrowing of another writer's words or ideas.

**How Can Students Avoid Plagiarism?**

To avoid plagiarism, you must give credit whenever you use

- another person's idea, opinion, or theory;
- any facts, statistics, graphs, drawings—any pieces of information—that are not common knowledge;
- quotations of another person's actual spoken or written words; or
- Paraphrase of another person's spoken or written words.

If you are in doubt about whether what you are doing is inappropriate, consult your instructor. **A claim that "you didn't know it was wrong" will not be accepted as an excuse.**

**Penalty for Plagiarism**

The minimum penalty for an act of plagiarism is a 0 on the assignment, homework, and project. Serious cases of plagiarism may result in failure in the course as a whole, or expulsion from the university.

**Course Contents:**

| week | Basic and support material to be covered | Homework/reports and their due dates |
|---|---|---|
| **(1)** | Introduction to C :++ and Evolution and History of C++ | |
| **(2)** | Input Using cin and output using cout | |
| **(3)** | Structure of a C++ program | |
| **(4)** | Fundamental Data Types | |
| **(5)** | Variable and constant in C++ | |
| **(6) First examination** | If..else Construct | |
| **(7)** | Nested If..else Construct | |
| **(8)** | Operators and Unary Operators | |
| **(9)** | Variables, Construct & Looping: | |
| **(10)** | Functions:<br>Need for a function<br>Function Prototyping<br>Calling Function | |
| **(11)**<br>**Second examination** | Conditional Constructs (switch..case Construct) | |
| **(12)** | Conditional Operators | |
| **(13)** | Loop Construct | |
| **(14)** | while Loop | |
| **(15)**<br>**Specimen examination (Optional)** | do while Loop<br>for Loop<br>break and continue statements | |
| **(16) Final Examination** | Arrays and pointer | |

**Textbook:**

C++ Programming: From Problem Analysis to Program Design, by D.S. Malik, THOMSON Course Technology, 5th Edition, 2010