Course Syllabus

**Spring 2025**

**Mahdi Almohri**

**ISOM 230: Business Problem Solving & Programming**

**Instructor:** Dr. Mahdi Almohri

**Times:** Sun – Tue – Thurs

Section 1: 9:00 am-9:50 am

Section 2: 12:00 pm - 12:50 pm

**Location:** Room D2-1005

**Contact Information:**

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**Room**: A2 1009

**Office Hours**: Sun, Tue, Thu     11:00 AM – 11:50 AM or by email appointment

**Teaching Assistant:**

**Name :** Eng. Osama Mostafawi

**Location :** ISOM Department – 2nd Floor

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**Tutorials :** TBA

**Office Hours :**TBA

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## Course Description

The purpose of this course is to introduce students to fundamental concepts and models of application development and help them understand the key processes related to building functioning applications and appreciate the complexity of application development. Students will also learn the basic concepts of program design, data structures, programming, problem solving, programming logic, and fundamental design techniques for simple business applications. Moreover, students will comprehend and practice the program development life cycle, including gathering requirements, designing a solution, implementing a solution in a programming language, and testing the completed application.

## Course Learning Outcomes

Upon successful completion of the course, students will be able to:

CLO1. Use primitive data types and data structures offered by the development environment

CLO2. Analyze problems and choose an appropriate data structure for modeling a simple problem.

CLO3. Write simple applications that relate to a specific business domain .

CLO4. Design, implement, test, and debug a program that uses each of the following fundamental programming constructs: basic computation, simple I/O, standard conditional and iterative structures, and the definition of functions.

CLO5. Use appropriate tools to deliver and evaluate basic technical documents, presentations, and group interactions.

**CLO Mapping to CBA Skill Based Competency Goals[[1]](#footnote-1)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CLO | Analytical | Competency Goal  Communication Information  Technology | | Business  Ethics |
| 1 |  |  |  |  |
| 2 | I |  |  |  |
| 3 | I |  |  |  |
| 4 | I |  |  |  |
| 5 |  | A |  |  |

## Textbook

* Tony Gaddis (2019), Starting out with Python, 4th edition. [Purchase online](https://collegestudenttextbook.org/product/starting-out-with-python-global-4th-edition-ebook/).
  + OR: Purchase [paper back](https://www.amazon.co.uk/Starting-Python-Global-Tony-Gaddis/dp/1292225750/ref=sr_1_1?crid=1RJKSCZT80E03&dchild=1&keywords=gaddis+python&qid=1602392965&sprefix=Gaddis%2Caps%2C249&sr=8-1).
* Additional Resource:
  + Schneider, D. I. (2016). *An introduction to programming using Python*. Pearson. [Paper back.](https://www.amazon.com/Introduction-Programming-Using-Python-Global/dp/1292103434/ref=sr_1_1?s=digital-text&sr=1-1)

## Prerequisite

* ISOM 130

## Lab Requirements

* 1 Hour (No credit)

**Course Requirements and Policies**

* The student is responsible for understanding class policies and keeping up to date with any changes.
* Microsoft Teams will be the main class communication tool. Students must learn to use it and check for updates.
* Announcements and assignments posted on Teams are considered official.
* Quizzes/exams will not be repeated for any reason.
* Negotiation of the final grade is not accepted.
* All mobile phones and electronic devices must be silenced.
* Food and drinks are allowed if they do not cause a disruption.
* Plagiarism and cheating will result in an automatic F.
* Written assignments must be typed; handwritten submissions will not be accepted.
* Late submissions will not be accepted.

**Course Requirements and Policies**

* **Student Responsibility:** Students are responsible for understanding class policies and keeping up to date with any changes.
* **Class Communication (Microsoft Teams):** Microsoft Teams will be the primary communication tool for the class. Students must learn how to use it and regularly check for updates, as all announcements, policy changes, and assignments posted on Teams will be considered official and part of the syllabus.
* **Class Disruptions:**
  + All **mobile phones and electronic devices must be silenced** **and stored in the bags.**
  + **Food and drinks** are allowed **only if they do not cause any disruption** to class.
* **Quizzes & Exams:**
  + **No make-up quizzes or exams** will be provided for any reason.
  + **Final grades are non-negotiable**.
* **Assignments & Submissions:**
  + All written assignments must be typed; handwritten work will not be accepted.
  + Late submissions will not be accepted under any circumstances.
* **Academic Integrity:**
  + Students are held to the highest standards of **honor and conduct**.
  + **Plagiarism and cheating will result in an automatic F for the student caught in such an act**.
  + **Using AI tools (e.g., ChatGPT, Copilot) for solving assignments or tests will result in a zero grade**.

**Attendance & Participation Policy**

* **Participation:** Active participation in class discussions is expected and will be part of students' assessment.
* **Attendance Policy (Kuwait University Rules):**
  + 3 absences → First warning
  + 6 absences → Second warning
  + More than 6 absences → FA (Failure due to Absences) grade

**Tentative Course Outline:**

|  |  |
| --- | --- |
| **Week** | **Topics** |
| 1 | Introduction to programming |
| 2 | Hello world |
| 3 | Input, Process, Output |
| 4,5 | Decision structures and Boolean logic |
| 6 | Repetition structures |
| 7 | Functions |
| 8,9 | Files |
| 10,11 | Lists |
| 12 | Strings |
| 13,14 | Dictionaries and Sets |

**Final Project**

Students will work individually or in small groups to develop a simple business-related Python application. The project will involve:

* Problem identification
* Application design
* Implementation
* Testing and debugging
* Presentation and documentation

**Instructor’s Note**

This course is designed to help students understand how programming can be used in business settings. While no prior programming experience is required, students must be prepared to practice coding regularly and work on real-world problems. The emphasis is on problem-solving, business applications, and developing practical coding skills that will be valuable in professional settings.

## Grading

The scores in this course will be the weighted average of the following items:

|  |  |
| --- | --- |
| **Weight** | **Description** |
| 15% | Lab + Assignments |
| 15% | Quizzes (best 4 out of 5) |
| 20% | Midterm (Written + practical/project) |
| 15% | Group Project |
| 35% | Final (Written + Project) |
| 100% | TOTAL |

## Grade Distribution

|  |  |
| --- | --- |
| **Grade** | **Range** |
| A | ≥ 95 |
| A- | ≥ 90 and < 95 |
| B+ | ≥ 87 and < 90 |
| B | ≥ 83 and < 87 |
| B- | ≥ 80 and < 83 |
| C+ | ≥ 77 and < 80 |
| C | ≥ 73 and < 77 |
| C- | ≥ 70 and < 73 |
| D+ | ≥ 65 and < 70 |
| D | ≥ 60 and < 65 |
| F | < 60 |

**Quantitative Methods & Information Systems**

# CBA Competency Goals

1. **Analytical Competency:** A CBA graduate will be able to use analytical skills to solve business problems and make a well-supported business decision.

**Student Learning Objectives:**

* 1. Use appropriate analytical techniques to solve a given business problem.
  2. Critically evaluate multiple solutions to a business problem.
  3. Make well-supported business decisions.

1. **Communication Competency:** A CBA graduate will be able to communicate effectively in a wide variety of business settings.

**Student Learning Objectives:**

* 1. Deliver clear, concise, and audience-centered presentations.
  2. Write clear, concise, and audience-centered business documents.

1. **Information Technology Competency:** A CBA graduate will be able to utilize Information Technology for the completion of business tasks.

**Student Learning Objectives:**

* 1. Use data-processing tools to analyze or solve business problems.

1. **Ethical Competency:** A CBA graduate will be able to recognize ethical issues present in the business environment, analyze the tradeoffs between different ethical perspectives, and make a well-supported ethical decision.

**Student Learning Objectives:**

* 1. Identify the ethical dimensions of a business decision.
  2. Recognize and analyze the tradeoffs created by application of competing ethical perspectives.
  3. Formulate and defend a well-supported recommendation for the resolution of an ethical issue.

1. **General Business Knowledge:** A CBA graduate will be able to demonstrate a basic understanding of the main business disciplines’ concepts and theories.

**Student Learning Objectives:**

* 1. Acquire a fundamental understanding of knowledge from the main business disciplines (e.g. finance, accounting, marketing, and management information systems, among others).

1. Undergraduate program competency goals shown at the end of this document. [↑](#footnote-ref-1)