**[Course Syllabus](https://my.aui.ma/ICS/Academics/CSC/CSC__1300/1920_SP-CSC__1300-02/Syllabus.jnz?portlet=Course_Syllabus" \o "Go to main Course Syllabus screen)**

**csc1300**

**Intro to computers**

Introduction to Computers (CSC 1300)

Spring 2020

Instructor:            Yousra Chtouki

Office Location:    Room 102, Building 5, Ext: 3171

Office Hours:            To be announced by email/Posted on the office door

                            Other Times: By Appointment

Class Meeting Times:

Each section meets twice a week in class and one lab session in blg 5

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General Information

|  |  |
| --- | --- |
| Prerequisite | None |
| Co-requisite | None |
| Prerequisite For | --------- |
| Offered in Semester | 1 , 2 &3 |
| Credit Hours | 3 Hrs |
| Contact Hours | 3:40 hours/week =>  1:50 hr lecture + 1:50 hrs lab |

Catalogue Description

A thorough and non-technical guide for the practical use of computers that is vital to the students' personal and professional lives. It includes an overview of the computer's history, microcomputers hardware and software including the Operating System, the most commonly used application software: spreadsheets, and an introduction to programming using Python as a tool to develop problem solving skills.

Textbook/References

-    Computing Essentials 2019: Complete Edition

-   Python Programming (free PDF available online for version 3)

-    Articles and other resources sent by the Professor by email or posted on Jenzabar & facebook (csc1300).

Course Outcomes

At the conclusion of this course, the successful (passing) student will be able to demonstrate a general understanding of the following:

- Identify different components of a computer and related topics.

- Identify and understand the main computer concepts and vocabulary.

- Identify the difference between Application and system software.

- Identify and understand the different roles of an operating system.

- Master and apply the basic use of spreadsheets for data organization.

- Recognize the main components of a network topology.

- Design algorithms and develop simple programs using Python programming language.

- Use problem-solving strategies to develop an algorithmic solution to a problem

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| --- | --- | --- |
| ABET Outcome | Learning Objective | Assessment Method |
| d. An ability to function on multi-disciplinary teams | * Design algorithms and develop simple programs using Python programming language. * Use problem-solving strategies to develop an algorithmic solution to a problem | * In-class activities and assignments, including a learning styles assessment |
| g. An ability to communicate effectively, including oral, written and visual forms. | * Identify different components of a computer and related topics. * Identify and understand the main computer concepts and vocabulary. * Identify the difference between Application and system software. * Identify and understand the different roles of an operating system. | * Homework * In-class activities |

Topical Outline

Computing Essentials: the chapters covered are those highlighted

1 Information Technology, the Internet, and You

2 The Internet, the Web, and Electronic Commerce

3 Application Software

4 System Software

5 The System Unit

7 Secondary Storage

8 Communications and Networks

9 Privacy, Security, and Ethics

10 Information Systems

11 Databases

12 Systems Analysis and Design

13 Programming

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Concepts Covered | | | Lab Applications |
| Week 1 | * Course Introduction | | | no lab |
| Week 1 | * The System Unit  Chp5 | | | Intro to Computer Components/ File Extensions |
| Week 2 | * Secondary Storage  Chp7 | | | File Extensions |
| Week 3 | * System Software: Operating Systems  Chp4 | | | Operating Sys: Win/Mac |
| Week 4 | * System Software: Operating Systems Chp4 | | | Spreadsheets: MS-Excel |
| Week 5 | * Networking  Chp7 | | | Spreadsheets: MS-Excel |
| Week 6 | * Midterm | | | Spreadsheets: MS Excel |
| Week 8 | * Problem Solving & Algorithm Design | | | Spreadsheets: MS Excel |
| Week 9 | * Python Programming (math library, strings, lists, output formatting) | | | Raptor |
| Week 10 | | * Selection Structures | Intro to Python | |
| Week 11 | | * Selection Structures | Selection Structures PI | |
| Week 12 | | * Repetition Structures | Selection Structures PIII | |
| Week 13 | | * Repetition Structures | Repetition Structures | |
| Week 14 | | * Putting it all together – Python review | Repetition Structures | |
| Week 15 | | * Putting it all together |  | |
| Week 16 | | * Review week * Final Exam Week |  | |
|  |  |  |  |  |

**Python Programming:**

The Chapters and Sections covered in CSC1300 using Python Programming textbook(John Zelle)

|  |  |  |  |
| --- | --- | --- | --- |
| Concept | Chapter | Section | Exercises |
| Intro to Python: Chaos Prog | 1 | 1.1 to 1.10 | Page 23-24 Ex 1,2,3,6,7 |
| Simple Programs | 2 | 2.1 to 2.2,2.3,2.4,2.5 | Page 53 |
| Computing: Math Library | 3 | 3.1,3.2,3.5 | Page 76-77 Ex 1 TO  Ex10 |
| String Data Type | 5 | 5.1,5.2 | --- |
| Functions  (May not be covered fully if time doesn’t allow it) | 6 | 6.1,6.2,6.3,6.4 | Page 197 Ex: 5, 6,9 |
| Selection | 7 | 7.1,7.2,7.3 | Page 230 Ex: 1,2,3,4,5,6,7,8,9,10,11,12,13 |
| Loops | 8 | 8.1,8.2 |  |

**Learning Methodology**

The student is required to make the most of this course by applying the following learning strategies:

* Do all required readings before attending the class.
* Follow attentively all class lectures.
* Participate actively in class ask questions for better understanding.
* Take notes during class to facilitate review for examinations, and to use as a quick reference guide.
* Explore the use of the internet for further research on related topics to the material covered in the classroom.
* Students are urged to take advantage of office hours to clarify any misconceptions and to elaborate on class discussions.
* Effective use of lab time and materials to apply topics and concepts covered in the classroom.

**Grading:**

There will be a MIDTERM and a FINAL EXAM. Quizzes are unannounced but expect one quiz every two chapters.

Quizzes                                               30%

CW/HW                                               25%

Lab                                                     25%

Attendance                                          10%

Participation & Class Behaviour             10%

Total                                                   100%

**Grading System:**

|  |  |  |  |
| --- | --- | --- | --- |
| A+    97 to 100%  A      93 to 96.99%  A-     90 to 92.99% | B+   87 to 89.99%  B     83 to 86.99%  B-    80 to 82.99% | C+   77 to 79.99%  C     73 to 76.99%  C-    70 to 72.99% | D+ 67 to 69.99%  D   60 to 66.99%  F     0 to 59.99% |

* There will not be any makeup for any missed work such as a quiz or a test, in extreme cases with a valid excuse a makeup can be given for exams only. All the grades are final and none of the grades will be dropped.
* Late work is not accepted and will receive zero credit.
* All work is required.
* In order to pass this class, you must be an active member.
* Absence and tardy policy - 4 unexcused absences result in a Zero in the attendance grade.  Excessive tardiness will also result in a lowered grade.  Any in-class assignment or activity missed will receive zero credit.
* Participation includes asking questions, answering questions, participating in class discussions and activities, sending links, videos & articles related to the course content.

**Academic Progress**

It is essential to keep the instructor informed of your progress as well as any special difficulties you may be experiencing. Failure to do so may lead to a poor grade.

**Academic Integrity**

Students have the responsibility to know and observe the requirements of the AUI Code of Academic Honesty and the penalties resulting from violation of this code. This code forbids cheating, fabrication or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty.

Students are expected to maintain a high standard of scholastic integrity.  All work in this course is to be done individually unless explicit instructions have been given to do otherwise.   Each student is required to submit the product of his or her own work. Two or more students working together as a group on a solution for an individual problem or assignment is strictly prohibited in the course and considered a violation. Assignments from different students that look similar are subject to high scrutiny.

Cheating on exams or assignments, plagiarizing, interfering with another student's work, misrepresentation of the student's work, etc. Are serious offenses and will be handled by the appropriate authorities in the department and the college.  Penalties for violations range from a grade of zero on the assignment to a grade of F for the course.

It is the student’s responsibility to fully read and understand the Pledge of Academic Honesty in the student Handbook, and the AUI policy in the (2007-2008) catalogue.

Civility in the Classroom: Class Behaviour Grade

In this course, you are expected to act in a manner consistent with the behaviour expected in the professional workplace.  Respect each other, come to class prepared, be supportive of others, be attentive, contribute when appropriate, and have fun.  Civility is expected and assumed.

In order for everyone to have the opportunity to maximize learning, inappropriate or disruptive behaviour is prohibited and may result in a request to leave the classroom at a minimum.  Examples include, but are not limited to, using cell phones in class, texting in class, excessive tardiness or late arrivals, demanding special treatment, challenges to the instructor’s authority, leaving class early, shuffling backpacks and book bags, using offensive language or remarks, reading material not related to the course, prolonged side discussions, doing sudoku or playing games in class, sleeping, overt inattentiveness, and using a laptop/iPad/smartphone during class unless instructed to do so.

ACM

AUI has an active student chapter of the Association for Computing Machinery (ACM). Each student is encouraged to become involved in the academic life of the computer science department. Participation in the activities of this organization is an excellent way to meet other students and faculty, learn more about the department and profession, and have fun!

Communication

It is important to keep good communication between the student and the instructor will help achieve a better learning experience.

* Please feel free to stop by the office at anytime during office hours, or schedule an appointment if necessary.
* Email is a quick and guaranteed contact option; please make good use of it. A quick response is guaranteed at least during work days.
* The student is responsible for all announcements made in class or sent via email. Please make a habit of checking the university assigned email regularly.