CTC 435 – 41 Fundamentals of Information Technology

Computer Science Department

California State University, Dominguez Hills

Instructor	Dr. Liudong "Louis" Zuo (Ph.D.)	Prerequisites	None
Email	LZUO@csudh.edu	Lecture Delivery Method	Online (Asynchronized)
Office Hours	1:00 PM – 2:30 PM on Tu. and 2:30 PM – 4:00 PM on Th.	Unit	2

Course Reference

Following book is a recommended reference book, purchasing is not mandatory.

Starting Out with Python (4th Edition)
Author: Tony Gaddis, Publisher: Pearson (March 16, 2017)
ISBN-10: 0134444329   ISBN-13: 978-0134444321

Course Description

Due to the wide-spread usage of computer applications, knowledge about computers and information technology is required to function effectively in the workforce today. This course provides students with training related to information technology, computer networks and cybersecurity. Students who enroll and complete the course would gain significant theoretical knowledge and hands-on experience that can be transformed into marketable skill sets that potential employers are looking for. Topics of this course are divided into three modules: Information Technology Fundamentals, Networking & Hardware, and Cybersecurity Computer Security. We will cover the first module in this course.

Course Objectives

- Introduce basic knowledge of the following topics: Programming, Data Analysis, Probability and Statistics, Batch Scripts, Database, Operating System, and Network and Network Security.

- Get students familiar with using computers and learned knowledge to solve real problems.

- Generalize the topics, techniques and tools to show students the concepts and essence, and further let students use similar concepts and essence in their future study to solve problems.

Student Learning Outcomes

Upon completion of the course the students will be able to

- write simple Python programs to solve problems.

- use Excel to manipulate data.

- answer entry level questions regarding Database, Operating System, and Network and Network Security.

- apply learned computational thinking skills for problem solving

Grading and Course Requirements

Quiz: 20%, Assignment: 40%, Exam: 40%

- **Quizzes**: There will be two quizzes, and will be held online.

- **Assignments**: There will be four assignments.

- **Exam**: The final exam is cumulative, and will be held online (90 mins long).

Other Policies

- You are required to attend all lecture meetings, and study and review the lecture materials. It is recommended that students create their own course notes instead of relying solely on presentation slides, as this approach is more active and engaging. The most efficient way to understand the course materials is to actively engage with them through reading, practicing, and reviewing over time.

- Late submission of assignments, projects, etc. and make-up of exams will be allowed only for extraordinary, unforeseen, and unavoidable circumstances that have been discussed with the instructor as soon as they arise and prior to the due date of the deliverable or exam or as soon as reasonably possible. Evidence of these circumstances will be required. Failure to provide evidence or notify the instructor such circumstances in a timely manner forfeits any right to any special accommodations. Students with disabilities should contact the SdRC office before the exams to make arrangements.

- Extra credit opportunities may be provided in the class and will be made available to all students.

- It is strongly encouraged that you ask questions you may have during or after class. However, before seeking assistance, please make an effort to solve the problem on your own. For instance, if you come to me with a question about an assignment and I see that you have not made a good effort to solve it, I may not be able to offer much help.

- Email is the quickest way to contact me for assistance. When sending an email, please use the subject format "CSC 321" followed by key words. For example, "CTC 435 – Assignment 2 – Question 3" or "CTC 435 – Iterative Statements". I strongly suggest checking out the following two websites for tips on crafting effective emails to instructors:

  - How to Write an Email to Your Instructor
  - wikiHow: How to Email a Professor

  I will make every effort to respond to emails within one business day. Therefore, if an assignment is due on the weekend, please send your questions by Thursday to ensure a timely response.

- If you consider this class to be important, such as critical for your graduation or financial aid or scholarship, it is recommended to work hard from the first day. I will not provide any options to change your grade at the end of the semester. Seek help from tutors if necessary. For each topic covered in class, there are numerous online resources that can be used to supplement learning. Additionally, taking initiative to conduct independent research and learn on your own can improve your self-learning abilities.

Grading Scale

Score Range	Grade
≥ 65	Credit (CR)
< 65	None-Credit (NCR)

Required Computer Software/Hardware Capabilities

- Computer

  You must have access to a reliable computer for this course. If you are on campus and do not have a laptop, you can check out a laptop from the IT User Services Help Desk via Technology Checkout Program. In addition, the Toro Student Computer Lab offers on campus access to workstations with a wide variety of commonly used software.

  Visit the CSUDH Online Courses Technical Requirements page for more information on technology requirements.

- Zoom

  This course will use Zoom web conferencing software for online meetings/office hours/online lectures. Visit this page for detailed information of using Zoom.

- Email

  All email communications from this course will go through your Toromail, the CSUDH student email system.

- Internet and Campus Wireless Network

  You must have Internet access to participate in this course. If you are on campus, connect your laptop and mobile device to the internet using the eduroam campus wireless network.

- Technical Help and Any Other Questions

  - Login Issues

    For login issues related to Blackboard, Toromail and MyCSUDH, contact the IT Help Desk at 310-243-2500, option 1. You can also create an online service ticket for login support.

    The IT Help Desk also offers walk-in support. Visit the first floor of the library (north), C-108, for in-person help.

  - Password Resets

    CSUDH offers an easy, self-service password reset service. For additional assistance, contact IT Help Desk.

  - Blackboard Issues

    For issues or questions with Blackboard, contact the CSUDH Blackboard Support line at 310-243-2500, option 2. You can also create an online service ticket for Blackboard support.

  - Any Other Questions

    If you have any other questions or need technical help, please visit Division of Information Technology page.

Computer Literacy Skills Expectations

Students are required to have the following basic computer literacy skills to succeed in this course, especially considering this is an online course:

- Have regular access to computers and internet access for the term of this course.

- Be able to access online course materials on Blackboard using common internet browsers, such as Chrome and Firefox.

- Be familiar with using email as a communication tool and check your campus email account at least every other day.

- Be able to open the materials and finish the required problems using applications, such as Eclipse or other Java IDEs, PowerPoint reader, Word reader and PDF reader.

Academic Integrity

Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog, and obey all rules and regulations imposed by the university relevant to its lawful missions, processes, and functions. All work turned in by a student for a grade must be the students' own work. Academic dishonesty will not be tolerated, and will be dealt with according to university policy.

Academic dishonesty includes:

- Cheating: Intentionally using or attempting to use unauthorized materials, information, or study aids.

    - Students completing any examination should assume that external assistance (e.g., books, notes, calculators, and conversations with others) is prohibited unless specifically authorized by the instructor.

    - Students may not allow others to conduct or prepare work for them without authorization from the instructor.

    - Substantial portions of the same work may not be submitted for credit in more than one course without authorization.

- Fabrication: Intentional falsification or invention of any information or citation in an academic exercise.

- Facilitating academic dishonesty: Intentionally or knowingly helping or attempting to help another commit an act of academic dishonesty.

- Plagiarism: Intentionally or knowingly representing the words, ideas, or work of another as ones own in any academic exercise. In this class, plagiarism is defined as 30% content overlap (does not have to be exactly the same, high similarity is also counted) with other's submission or online resources. Note that "content overlap" is defined in terms of both quantity and quality of the submission. For example, student A's submission contains 100 lines of code while the key part is 20 lines of code. Student A's submission will be defined as plagiarism and cheating when

    - A's submission contains 30 very similar lines of code from another resource, or

    - The key part of A contains 6 very similar lines of code from another resource.

Further details may be found in the Undergraduate Academic Integrity Policy. Wherever the current university policy is different from the policies in this syllabus, the university policy takes precedence.

Americans with Disabilities Act

Access to publications, instructional material, computer software, hardware and electronic information, as well as access to the campus are critical for the educational and career achievement of all persons. CSUDH seeks to enable that access with this directory of information and services. The policy of the CSU is to make its programs, services, and activities accessible to students, faculty, staff, and the general public who visit or attend a campus-sponsored event, with disabilities.

CSUDH adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with temporary and permanent disabilities. If you have a disability that may adversely affect your work in this class, I encourage you to register with Student disAbility Resource Center (SdRC) at Welch Hall, Room D-180 and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the SdRC. For information, call (310) 243-3660 or Email dss@csudh.edu or go to: `https://www.csudh.edu/sdrc/`

Knowing Your Responsibilities

CSUDH provides the student with a wide variety of academic assistance and support, but it is up to the student to know when they need help and to seek it out. It is their responsibility to keep informed and to obey the rules, regulations and policies which control their academic standing and life as a CSUDH student. Meeting deadlines, completing prerequisites and satisfying the degree and certificates requirements, as found in the curriculum guides in this catalog, are all part of the duties as a student. Consult this catalog, the college and school announcements and the schedule of classes for the information needed. Watch for official announcements.

Tentative Course Outline and Schedule

Note that the dates in the table are tentative, the actual topics covered on certain dates might be different and will be depending on the class progress. All the course materials can be found on Blackboard. Students are supposed to read the assigned course materials carefully during each online class time, other instructions might be specified by instructor, which will be announced in class or sent to students via email.

Week	Date	Coverage	Quiz/Assignment/Exam
1	Friday	Chapter 1 Introduction to Computers and Programming Chapter 2 Input, Processing, and Output	Assignment 1
	Saturday	Using and Handling Data, Excel Tutorials	
2	Friday	Chapter 2 Input, Processing, and Output Chapter 3 Decision Structures and Boolean Logic	Assignment 2
	Saturday	Database and SQL Basics	
3	Friday	Chapter 3 Decision Structures and Boolean Logic Chapter 4 Repetition Structures	Quiz 1, Assignment 3
	Saturday	Operating System Basics	
4	Friday	Chapter 4 Repetition Structures Chapter 5 Functions	Quiz 2, Assignment 4
	Saturday	Network and Security Basics	
5	Friday	Chapter 7 Lists and Tuples	Exam