

Fall 2020

## CS 103-101: Computer Science with Business Problem

Shu-Chung Lee

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# SYLLABUS

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**Code:** CS103 - 101

**Title:** Computer Science with Business Problem 91857

CS103 - 101	Computer Science with Business Problem 91857	Monday	6:00PM – 8:50PM	GITC 2315B
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**Institute:** NJIT

**Department:** Computer Science

► **Instructor:** Shu Lee

**Email:** [sl65@njit.edu](mailto:sl65@njit.edu)

**Office hours:** Monday 5:00 – 6:00 PM at GITC Computer Science Office (by appointment only)

Grader: Yi-Hsuan Hsu

[yh454@njit.edu](mailto:yh454@njit.edu)

Or WebEx Chatroom

**Course Description:** An introductory course in computer science, with applications to business and managerial decision making. Topics include basic concepts of computer systems, software engineering, algorithm design, programming languages and abstraction, with applications. The Python programming language will be used to illustrate concepts and techniques.

**Corequisites:** - None

**Prerequisites or Corequisites:** -

**Credits:** 3

**Lecture Hours:** 3

**Lab/Studio Hours:** 0

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**REQUIRED TEXTBOOK MATERIALS** Introduction to Computing Using Python An application development focus: Author Ljubomir Perkovic 2<sup>nd</sup> Edition. Publisher: Wiley. ISBN 978-1-118-89094-3

**COURSE MATERIAL AND COMMUNICATION:** We will be using the Canvas system (<http://canvas.njit.edu>). All class information (including this syllabus, class notes, homework assignments) will be posted there. You can post questions (and answers) there, and I will post occasional updates. All communications should be through the NJIT email. If you have a personal issue that you wish to bring to my attention (for example if you want to inquire about your grade, or inform me that you need to miss class due to illness) you should email or speak to me in person. For other communications, you should use Canvas (for example, questions on homework or what will be on the exam).

## **LEARNING OUTCOMES:**

Upon completion of this course, students will be able to:

Students are given the computer programming skills to analyze business-user information systems and implementation of systems solutions in business organizations.

## **GRADING STANDARD:**

**Homework will be assigned each week during the class, and due before class on the following class.** Lab and Homework assignments will be assigned from textbook. There are 11 homework and 11 Lab assignments. The lowest lab and Homework will be dropped. Each lab assignment is one and half point toward final grade and should be submitted to Canvas at the end of the day of class. Each Homework assignment will be three points toward the final grade and should be submitted at the end of each week. No late submission is allowed for both labs and Homeworks.

If you are unable to meet any of the course requirements (for example due to illness), you must contact me immediately (email). In order to be excused from a component of the course that contributes to the final grade, you must supply documentation explaining your absence to the office of the dean of students, and they will in turn contact me.

### **Grade Calculation**

<b>Activity</b>	<b>Max Pts.</b>	<b>Comments</b>
Mid-term test 1	25	
Final test	30	
HW/Lab assignments	45	
<b>Total</b>	<b>100</b>	

<b><u>Class Rank</u></b>	<b><u>FINAL GRADE</u></b>
89.6 - 100	A
85.6 - 89.5	B+
79.6 - 85.5	B
74.6 - 79.5	C+
69.6 - 74.5	C
59.6 - 69.5	D
59.5 and below	F

## **Tentative Course Outline**

- 1) Introduction to Computer Science
- 2) Python Data Types
- 3) Imperative Programming
- 4) Text Data, Files and Exception
- 5) Execution Control Structures
- 6) Dictionaries and Sets
- 7) Namespaces, GUI
- 8) Object-Oriented Programming
- 9) Recursion
- 10) The Web and Search

**DEPARTMENT POLICIES:**

It is every student's responsibility to understand and adhere to the provisions of the academic honor code. You may discuss homework problems with your colleagues, but all written work must be your own. Copying programs or written assignments from any source is a serious violation of the academic honor code. Violations of the exam instructions will result in a score of zero for the exam. Any evidence of dishonesty will be reported to the Dean of Students for disciplinary action.

**Academic Integrity**

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: <http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>. Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu. Any evidence of cheating on a graded course component will result in a grade of zero for that component.

<b>W K</b>	<b>Lecture Session</b>	<b>Date</b>	<b>Lab session</b>	<b>Comments</b>
<b>1</b>	Introduction to Computer Science	09/8/2020	Python IDE	
<b>2</b>	Python data types	09/14/2020	Lab 1, Homework 1	
<b>3</b>	Imperative Programming	09/21/2020	Lab 2 Homework 2	
<b>4</b>	Text Data, Files, and Exceptions	09/28/2020	Lab 3, Homework 3	
<b>5</b>	Execution Control Structures 1	10/05/2020	Lab 4 Homework 4	
<b>6</b>	Execution Control Structures 2	10/12/2020	Lab 5 Homework 5	
<b>7</b>	Mid-term Exam	10/19/2020		
<b>8</b>	Dictionaries and Sets	10/26/2020	Lab 6 Homework 6	
<b>9</b>	Namespaces 1	11/02/2020	Lab 7 Homework 7	
<b>10</b>	Namespaces 2, GUI	11/09/2020	Lab 8 Homework 8	
<b>11</b>	Object-Oriented Programming 1	11/16/2020	Lab 9 Homework 9	
<b>12</b>	Object-Oriented Programming 2	11/23/2020	Lab 10 Homework 10	
<b>13</b>	Recursion	11/30/2020	Lab 11 Homework 11	
<b>14</b>	Reading	12/07/2020		
<b>15</b>	Final Exam Week			