Course Syllabus - Introduction to Programming Languages
CSE130 Sections 1A/B & 50: Fall Semester 2024

Instructor: Dr. Roman V. Yampolskiy roman.yampolskiy@louisville.edu	**Office Hours:** (subject to change) Monday: 2:00 PM – 3:00 PM Wednesday: 2:00 PM – 3:00 PM **Appointments (**at least 24 hour notice required**)**

Lectures:	Monday & Wednesday:	11:00 AM – 11:50 AM (EH 103)
Lab 01:	Tuesday	11:00 AM – 12:50 PM (SH 213) – Section 1A
Lab 02:	Thursday	11:00 AM – 12:50 PM (SH 213) – Section 1B

Lab Assistant(s):

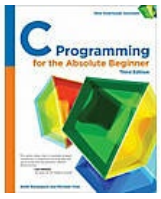
Name: Sahar Mehdaoui; **Office**: Duthie Center 239
Email: sahar.sinenemehdoui@louisville.edu
Office Hours: T, Th 10:00 to 11:00AM

Prerequisites: Basic knowledge of computers (mouse, keyboard, etc.).

Course Description: Introduction to programming languages with emphasis on C and C++ including laboratory exercises on writing and compiling computer programs. This course will cover topics pertaining to program life-cycle, modularity, operators, expressions, flow control, functions, scope, memory management, structures and data files, Object-Oriented Program design and development.

Course Objectives:
At the end of the semester a successful student will be able to:
1. Understand the syntax of the C and C++ language.
2. Use the language programming environment, including editors, compilers, linkers and create an executable program written in C or C++.
3. Design and implement problem solving algorithms.
4. Apply sound structured programming principles.
5. Acquire a solid foundation in Object-Oriented design and development

Textbook**:** Two Books are required:



C Programming for the Absolute Beginner, Third Edition by Keith Davenport & Michael Vine. ISBN 13: 978-1305273764 © 2014. Cengage Learning.

C++ Programming: From Problem Analysis to Program Design by Malik Edition: 8th ISBN: 9781337102087 Author: D. S. Malik Publisher: Cengage Learning. 2018.

Labs: When you register for this course, you are also registering for the lab session for this course. Assignments involve writing programs assigned from the textbook or supplementary materials. You should expect to spend some time working on these exercises outside of your scheduled lab time. You will typically have one week to complete a lab assignment. **NO LATE LAB** assignments will be accepted!

Grading: Your course grade will be calculated using the following distribution:

10 Programming Assignments: 40%
Two Examinations: 50%
1 Final Project 10%

98-100 = A+	89-87 = B+	79-77 = C+	69-67 = D+	Below 59 = F
97-94 = A	86-84 = B	76-74 = C	66-64 = D	
93-90 = A-	83-80 = B-	73-70 = C-	63-60 = D-	

*Percentages between specified ranges default to a lower grade (Ex. 97.6 is an A)

Exams: Two exams will be administered. The exams will be based mainly on the laboratory and project work you have completed as well as the reading assignments and class lectures.

Grading questions: If you have a question about a grade, you should contact your TA within one week of the day the graded work is returned to you. You lose the right to re-grading after that.

Incompletes: Incomplete grades (I) are granted very rarely and only under documented extenuating circumstances.

Academic dishonesty: Students are expected to do their own work. **Copying is strictly forbidden.** A primary goal of the Speed School of Engineering is to educate men and women who will serve the engineering community with competence and integrity. Academic dishonesty is a serious offense at Speed School of Engineering because it undermines the bonds of trust and honesty between members of the community and defrauds those who may eventually depend upon our knowledge and integrity. Students are expected to recognize and to uphold standards of intellectual integrity. The J. B. Speed School of Engineering assumes, as a minimum standard of conduct in academic matters, that the student is honest; credit for courses is given and received on the assumption and condition that all work submitted represents the student's own efforts.
Academic dishonesty is defined in the Code of Student Rights and Responsibilities. It is the student's responsibility to become familiar with the Code.

Students with Special Needs:
Students with special needs will be accommodated and all necessary arrangements will be made to facilitate learning the material, doing the assignments, and taking the exams.

Weekly Schedule**:** Note that the schedule below is tentative and will be adjusted as the course progresses.

Week	Lecture Date	Topic	Reading	Lab Date
1	Monday, 8/19	Getting Started	C1	Tuesday, 8/20
	Wednesday, 8/21	Data Types	C2	Thursday, 8/22
2	Monday, 8/26	Conditions	C3	Tuesday, 8/27
	Wednesday, 8/28	Loops	C4	Thursday, 8/29
3	Monday, 9/2	**Labor Day**		Tuesday, 9/3
	Wednesday, 9/4	Functions	C5	Thursday, 9/5
4	Monday, 9/9	Arrays	C6	Tuesday, 9/10
	Wednesday, 9/11	Pointers	C7	Thursday, 9/12
5	Monday, 9/16	Strings	C8	Tuesday, 9/17
	Wednesday, 9/18	Data Structures	C9	Thursday, 9/19
6	Monday, 9/23	Dynamic Memory	C10	Tuesday, 9/24
	Wednesday, 9/25	Files	C11	Thursday, 9/26
7	Monday, 9/30	**Mid-Term Break**		**Mid-Term Break**
	Wednesday, 10/02	C Exam Review		Thursday, 10/03
8	Monday, 10/7	C Exam		Tuesday, 10/8
	Wednesday, 10/9	C Exam Results		Thursday, 10/10
9	Monday, 10/14	Input/output	CPP3	Tuesday, 10/15
	Wednesday, 10/16	Data, Control, Fun.	CPP4-6	Thursday, 10/17 **W**
10	Monday, 10/21	OOP	CPP10	Tuesday, 10/22
	Wednesday, 10/23	Namespaces	CPP7	Thursday, 10/24
11	Monday, 10/28	Inheritance	CPP11	Tuesday, 10/29
	Wednesday, 10/30	Templates	CPP13	Thursday, 10/31
12	Monday, 11/4	Error Handling	CPP14	**Election 11/5**
	Wednesday, 11/6	Recursion	CPP15	Thursday, 11/7
13	Monday, 11/11	C++ Exam Review		Tuesday, 11/12
	Wednesday, 11/13	C++ Exam		Thursday, 11/14
14	Monday, 11/18	C++ Exam Results		Tuesday, 11/19
	Wednesday, 11/20	Student ppt		Thursday, 11/21
15	Monday, 11/25	Student ppt		Tuesday, 11/26
	Wednesday, 11/27	**Thanksgiving**		**Thanksgiving**
16	Monday, 12/2	Student ppt		Tuesday, 12/3
	Wednesday, 12/4	Reading Day		**Final** Project due 12/5

ABET Student Outcomes

CAC Student Outcomes:
This course may support the following CAC student outcomes:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions (CAC 1).
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline (CAC 2).
- Communicate effectively in a variety of professional contexts (CAC 3).
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline (CAC 5).
- Apply computer science theory and software development fundamentals to produce computing-based solutions (CAC 6).

EAC Student Outcomes:
This course may support the following EAC student outcomes:

- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives (EAC 5).
- An ability to acquire and apply new knowledge as needed, using appropriate teaming strategies (EAC 7).

Computer Issues and IT Support: Speed IT staff are available by appointment from 9 am to 4 pm to assist you with your technology needs. You may schedule an appointment by sending a detailed email including any relevant error codes and screen snips at SPDHelp@Louisville.edu (preferred) or 502-852- 7620.

Incomplete (I) Grades
As described in the Academic Catalog, students may request an incomplete under the following conditions:

- More than 50% of the semester's course work, as computed by percent of final grade excluding the final exam has been completed;
- Performance on the completed course work is considered passing;
- The inability to complete the final portion of the course work is due to reasons beyond the student's control, such as, but not limited to: prolonged illness, death in the immediate family, catastrophic events such as a car wreck, and travel restrictions.

Before a grade of incomplete is assigned, the student must provide documentation of the extenuating circumstances. Exams taken as part of removing the incomplete can be different from the exams given during the semester. If the student does not meet the deadlines for completing all work, a grade of F will be assigned, and no additional extensions will be given.

Title IX/Clery Act Notification

Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain **confidential** support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111).

Disclosure to University faculty or instructors of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is **not confidential** under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer.

For more information, see http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure.