CSC 351L - Comparative Programming Languages Lab
Spring 2021

Instructor:

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Office Hours:

My office hours are Monday 12:00pm until 3:00 pm and Wednesday 12:00pm until 5:00pm. Office hours will be held in my Zoom room that has ID 716 480 4416 (the same as my cell phone number).

Students can stop by during office hours or can schedule an appointment for help with course work via Calendly. If you go to https://calendly.com/canisiusmcconnell, you can schedule a 30 minute meeting via phone or Zoom.

Reference Books:

Logic Programming with Prolog   ANSI Common Lisp
Max Bramer (Springer Verlag, 2003)   Paul Graham (Prentice Hall, 1996)

Description:

The purpose of this lab is to introduce students to logical programming (Prolog) and functional programming (Lisp).

Prerequisites:

Students should be able to program in at least one higher-level language.

Goals:

At the end of this lab, students should be able to:
- write a program in Lisp (functional)
- write a program in Prolog (logical)

Student Responsibilities

The US Department of Education specifies that for every credit hour students are expected to spend one hour in class and two hours working on course materials outside of class. As part of those two hours of outside work, students will be expected to view language and project description videos and complete a set of projects.

Contact with the Professor

When students have questions, they are encouraged to contact me via phone, email, or a Zoom room visit. Any contact should be of a form that is professional in nature. Specifically, email messages should be clear, precise, and written in full grammatically correct sentences. This is necessary because email messages are prone to misinterpretation. Additionally, email can be used to ask general questions but not specific questions. It is impossible to suggest corrections to a program or algorithm via email contact.

Additionally, finding and correcting errors in a program or algorithm is an important part of the learning process and will only be done during phone or video meetings. Students should not send code to me via email with the expectation that I will debug the code on my own and return corrected code or suggestions for corrections. Any email messages that attach code for the purposes of debugging that are not in connection with a phone or video meeting will be ignored.

Professional Behavior:

Students should recognize that school and work environments are inherently different than that of a group of friends. In your circle of friends, you have chosen those people who have similar views of the world as your own. You may even choose to associate only with people of the same neighborhood, economic class, race, gender, or religion. In school and work settings, however, you are frequently placed in work groups with a diverse set of people, some of whom may have very different outlooks from you. You, as a professional, must develop a way of working with people who are different from you.

You should do this by first respecting differences. You don't have to agree with everything someone else thinks, but you should respect their right to be who they are. When people work together, they should deal with what is said not who is saying it. And when you criticize, you should be critical of ideas not people.

But most importantly, you should be careful of your language – what you say and how you say it. The words you use should be appropriate for professional environments – specifically, no swearing, no sexual remarks or jokes, and no threats. You should also not say anything that is sexist, racist, ageist, heterosexist, or homophobic. You should not be critical of people because of their physical attributes or because of their choice of religion (or lack thereof). Remember, most people do not appreciate bigoted comments.

Special Accommodations:

Canisius College is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability that may impair your ability to complete courses successfully, or any special instructional needs due to documented learning disabilities or health problems, it is imperative that you contact the Disability Support Services office. I will make every effort to meet any special needs conveyed by that office.

Grades:

Students will be evaluated based on their level of mastery of Prolog and Lisp as demonstrated in 10 projects. Each module will be assessed up to two times – on the original submission and on one resubmission. The highest level of mastery that a student shows will be the grade for that assignment. All students who have a grade less than 2 are required to complete a resubmission.

All assignments will be graded using the following general rubric:

Grade	Level of understand
4	Exceeded standard
3	Met standard
2	Has some gaps in understanding
1	Requires assistance to reach level 2 or higher
0	Has provided no evidence (i.e., missed an assignment)

A more specific rubric will be provided to students with each project. Each rubric will have details on what students have to demonstrate for each of these levels. These rubrics will have multiple rows for each of the sub-goals for each module. The grade for a module will be the average of the rubric rows. However, if any rows are ranked as 1 or 0, the overall grade will be 1 or 0, respectively.

The final lab grade will be determined by the average of the individual assignment grades and the following chart:

Overall Performance Level	Grade
4.00 – 3.85	A
3.84 – 3.50	A-
3.49 – 3.15	B+
3.14 – 2.85	B
2.84 – 2.50	B-
2.49 – 2.15	C+
2.14 – 1.85	C
1.84 – 1.50	C-
1.49 – 1.00	D
Below 1.00	F
One or more module grades of 0	FX

Note: There will be no extra credit assignments.

Lab Schedule

	Date	Topic	Project Due at 11:59 pm
1	Feb 11	Prolog basics	
2	Feb 18	Arithmetic, basic I/O, lists and cuts	Project 1
3	Feb 25	File I/O and asserting/retracting	Project 2
4	Mar 4	The univ operator and string processing	Project 3
5	Mar 11		Project 4
6	Mar 18		Project 5
	Mar 25	*Cura Personalis Day*	
7	Apr 1	Lisp basics and lists	
8	Apr 8	Control operations and functions	Project 6
9	Apr 15 *	Evaluation and processing nested lists	
10	Apr 22	I/O	Project 7
11	Apr 29		Project 8
12	May 6		Project 9
13	May 13		Project 10

Note: Students should view the indicated videos as well as the project description video before the start of the scheduled lab session.