COURSE: CMPS 134L - Computer Science I Lab
Department of Computing Sciences, University of Scranton

DATE: Spring 2020 (January 27, 2020 - May 22, 2020)

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Catalog Description:

**CMPS 134L - Computer Science I Lab, 1 credit, (Co-requisite: CMPS 134)**

Programming-related activities are undertaken that apply essential concepts from CMPS 134, including problem decomposition, modularization, flow of control, scoping, object-orientation, and algorithm development.

**Student Learning Outcomes:** CMPS 134L - Computer Science I Lab is the required co-requisite of CMPS 134 - Computer Science I. The specific activities of CMPS 134L are very closely aligned with the subject matter and pedagogy of CMPS 134 - Computer Science I and are primarily meant to enhance the student's understanding of the material studied in CMPS 134. Thus, CMPS 134L aims to support each of the CMPS 134 Student Learning Outcomes. Additionally, upon completion of CMPS 134L, a successful student will have the ability to do each of the following:

- Make productive use of an IDE (Integrated Development Environment) in the development of software.
- Work and learn collaboratively with peers in a structured yet active setting

Course Web Site: http://www.cs.scranton.edu/~jackowitz/public/Spring2020/c134L

(This site serves as the primary electronic communication tool for this course. You will use it to access required lab material and to submit and review lab activities. Initially, you must register to obtain full access to the functionality of this site.)

**GRADING:**

Each student will receive either 'S' or 'U' as their final course grade for CMPS 134L, indicating either an overall evaluation of "Satisfactory" or "Unsatisfactory" performance for the semester. Determination of the final course grade is based upon the grades received on each of the scheduled weekly lab sessions. An additional Final Exam Lab Session will be scheduled during Final Exam Week, but only those students who's final grade is unclear at that point will be invited to sit for that exam.

To earn a "Satisfactory" final grade in CMPS 134L a student must have earned "Satisfactory" or "Noteworthy" grades (see below) on at least \(n-2\) of the lab sessions; where \(n\) is the number of lab sessions held. A minimum of twelve lab sessions will be held over the following fifteen weeks.

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CMPS 134L - Computer Science I Lab, Spring 2020, P. M. Jackowitz
Each weekly lab session is scheduled for a 110 minute time period and consists of several activities, each to be completed under the supervision of the lab instructor. Generally, students work collaboratively in teams of two and with just a single submission from the team. Lab partnerships are assigned by the lab instructor and are regularly changed and likewise adjusted on the fly as needed. Teams of three are only allowed when the number of students present for a lab meeting is odd. Some specific activities require students to work alone and to make individual submissions, so as to demonstrate their individual understanding and facility.

For each lab session each student will receive one of the following four grades: Absent, Unsatisfactory, Satisfactory, or Noteworthy. Generally, team partners receive the same grade for a lab session, but each student has the responsibility to interact with the lab instructor to make their individual understanding known.

The difference between Unsatisfactory and Satisfactory is, of course, the most critical one. Generally, Satisfactory understanding and accomplishment is evident when activities yield worthwhile results and are completed within the time allowed without having to resort to trying most possibilities. It is not necessary to get things right the first time or even to complete all activities: rather, the key thing is to work thoughtfully and to be able to articulate valid explanations of your thinking and of your results and to likewise explain what you have done and what you have learned to the lab instructor as needed.

Some of the activities undertaken are designed to be evaluated by the lab instructor "on the spot" with each student demonstrating and explaining what they have just done. Other activities require students to develop some digital artifacts (generally source code files) that they test and refine before submitting for evaluation by the lab instructor after the session has ended.

Each lab session will begin with a brief introduction by the lab instructor meant to set forth the goals of the session and to relate the activities to be undertaken with the subject matter currently being studied in CMPS 134. As each activity is presented the lab instructor is there to interact with the entire class, separate teams, and individual students as appropriate and as needed in order to guide everyone in the successful accomplishment of the activities.

It is generally assumed that each student has a portable personal computer that they will bring and use during each lab session. The rooms in which the labs are held, LSC 116 and LSC 118, have recently been remodeled to provide "workstation areas" providing ready hook up to a large monitor setup via a single HDMI connection, along with ready hook up to an external keyboard and mouse via USB connection. In this way, each team will have a convenient work area providing a large extended screen area that each team member and the lab instructor can readily see. Given the wide variety of display connections in use on computers today, each student is expected to have an appropriate cable allowing their computer to connect to the provided HDMI cable so that the large monitor can be utilized.

Those students who do not have a computer to bring to and use during lab should make this known to their lab instructor. To facilitate interaction and to focus on the task at hand, the use of cell phones, tablets and other such electronic devices and gadgets during lab will generally be disallowed. Likewise, in order to facilitate interaction and to focus on the tasks at hand, each team is limited to the use of just one computer.

These lab sessions provide structured opportunities for every student to focus on specific questions and tasks in collaboration with others (team partner most immediately, but also with the other students in the lab and with the lab instructor) in an effort to gain a deeper understanding of the subject matter of CMPS 134. Students are required to do things in lab; things that they may not immediately know how to do. The
“lab setting” provides the opportunity to analyze and synthesize what you do know so you can come up with questions, contemplate answers and most importantly try things out. Thus, getting things “right” the first time should not always be expected, and thoughtful persistence will be needed. Once successful you then know more than you did before and are then positioned to learn more.

Since CMPS 134L serves to supplement CMPS 134, each lab session provides opportunities for the discussion of current and past CMPS 134 material. In particular, time is available to talk about current and past CMPS 134 out-of-class assignments.

Other:
- Obligations: http://www.scranton.edu/equity-diversity/Faculty-Resources.shtml