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

DATE: Spring 2024 (January 24, 2024 – May 17, 2024)

COORDINATOR: P. M. Jackowitz, LSC 192, paul.jackowitz@scranton.edu

LAB INSTRUCTORS: Timothy Gallagher, LSC 182A, timothy.gallagher@scranton.edu
                  Morgan McGuire, LSC 182B, morgan.mcguire@scranton.edu
                  Venugopal Someshwar Chevella, LSC 182C, venugopalsomeshwar.chevella@scranton.edu
                  David F. Reese, LSC 182C, david.reese2@scranton.edu
                  Charles J. Seitz, LSC 182B, charles.seitz@scranton.edu

OFFICES: LSC 192, LSC 182
OFFICE HOURS: As posted (office doors and online), and by appointment.
TELEPHONE: (570) 941-7774
WWW: http://www.cs.scranton.edu/~jackowitz

Catalog Descriptions:

CMPS 134 - Computer Science I, 3 credits, (Co-requisite: CMPS 134L)
An introduction to programming concepts and methodology using an object-oriented programming language (currently Java). Topics include problem analysis, abstraction, modularization, the development and use of algorithms, reuse, and the use of programming constructs including data types, classes, control structures, and methods.

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.

Clarifying Note: The catalog specifies CMPS 134 and CMPS 134L are mutual co-requisites of each other, this not only means that they must be "taken" at the "same time" (during the same semester), but that they both must be "completed" (the student must earn a passing final grade) during the same semester.

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 Materials: The corresponding Brightspace "course" will provide students access to course materials, with "drop boxes" configured for the submission of work for the instructor to evaluate.

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 whose final grade is unclear at that point will be invited to sit for the exam.
To earn a “Satisfactory” final grade (S) in CMPS 134L a student must have earned “Satisfactory” or “Noteworthy” grades (see below) on at least 75% of the lab sessions held. Note that since mutual concurrent enrollment in CMPS 134 and CMPS 134L is required, any student retaking CMPS 134 must also retake CMPS 134L.

A minimum of twelve lab sessions will be held over the following fourteen opportunities.

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Feb</th>
<th>Feb</th>
<th>Feb/Mar</th>
<th>Mar</th>
<th>Mar</th>
<th>Apr</th>
<th>Apr</th>
<th>Apr</th>
<th>Apr</th>
<th>May</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-26</td>
<td>01-02</td>
<td>08-09</td>
<td>15-16</td>
<td>22-23</td>
<td>07-08</td>
<td>21-22</td>
<td>04-05</td>
<td>11-12</td>
<td>18-19</td>
<td>25-26</td>
<td>02-03</td>
<td>09-10</td>
</tr>
</tbody>
</table>

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. For most activities students work collaboratively in teams of two as assigned by the lab instructor. Lab partnerships are routinely 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. For some specific activities students will be required to work alone as a means of providing opportunities to demonstrate individual understanding and facility.

For each lab session each student will receive one of the following four grades:

- **Absent**
- **Unsatisfactory**
- **Satisfactory**
- **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 and accomplishment known so as to discern distinctions. The difference between Unsatisfactory and Satisfactory is, of course, the most critical one. Generally, Satisfactory understanding and accomplishment is evident when most activities are accomplished with correct results within the time allowed without having to resort to mere “trial and error”. It is not necessary to get things right the first time; rather, the key thing is to work thoughtfully and to be able to articulate valid explanations of your thinking and of what you have done 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 team and individual demonstrating and explaining what they have just done. Other activities require each team 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 corresponding 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.

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, not getting things “right” the first time should 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.
In order to facilitate interaction and to focus on the task at hand, each team of two (or three, but only as necessary) is encouraged to use just one computer at each “workstation area”: connecting just the personal computer of one team member to the large monitor provided. LSC 116 and LSC 118 are equipped with “workstation areas” (one per team) 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. 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. (Lab instructors have only a limited supply.) Again, in order to facilitate interaction and to focus on the task at hand, the use of cell phones, tablets and other such electronic devices and gadgets (including ear buds) during lab will generally be disallowed.

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 may be available to talk about past and current CMPS 134 out-of-class assignments and quiz and test questions as well.

PROCEDURES:

- In the event the University continues or establishes revised specific behaviors for all persons on campus, to deal with any ongoing infections, we are all expected to be informed of these and to adhere to them.

- Lab Instructors are authorized to use their judgement and discretion to require students to clean and sanitize workstation areas, surfaces and devices, and to enforce social distancing and mask-wearing requirements.

- Students needing to attend remotely are to notify their respective Deans’ Office who will then inform the student’s instructors. However, it remains the responsibility of such students to additionally inform their instructors and to make specific arrangements with them ahead of time. Furthermore, all students allowed to attend remotely are expected to read and abide by the detailed statement of policy, entitled Remote Attendance (on Zoom) - Expectations and Etiquette, available at: https://www.cs.scranton.edu/~jackowit/public/Spring2024/RemoteAttendance.pdf.


- See Syllabi Language regarding “My Reporting Obligations as a Required Reporter” at: https://www.scranton.edu/equity-diversity/faculty-resources.shtml