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

DATE: Spring 2018 (January 29, 2018 - May 18, 2018)

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

INSTRUCTORS:
Joseph Gnall, LSC 182C, joseph.gnall@scranton.edu
Craig Lind, LSC 182C, craig.lind@scranton.edu
Michael Maugeri, LSC 182B, michael.maugeri@scranton.edu
Sarah Potter, LSC 182A, sarah.potter@scranton.edu
Avish Shah, LSC 182B, avish.shah@scranton.edu
David Vanora, LSC 182A, david.vanora@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/~jackowit/c134L

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/~jackowit/public/Fall2018/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 throughout the semester. Determination of the final course grade is based upon the grades received on each of the scheduled weekly lab sessions. If deemed necessary, an additional Final Exam Lab Session will be scheduled during Final Exam Week to complete the determination of final course grades for individual students.

To earn a "Satisfactory" final grade in CMPS 134L a student must have earned "Satisfactory" or "Noteworthy" grades on at least ten of the lab sessions held. Lab sessions are scheduled for each of the following weeks.

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Feb</th>
<th>Feb</th>
<th>Mar</th>
<th>Mar</th>
<th>Apr</th>
<th>Apr</th>
<th>Apr</th>
<th>Apr</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>5</td>
<td>12</td>
<td>19</td>
<td>26</td>
<td>5</td>
<td>19</td>
<td>2</td>
<td>9</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>
Each weekly lab session is scheduled for a 100 minute time period and consists of several activities, each to be completed in collaboration with an assigned lab partner, and under the supervision of the lab instructor. Students work in teams of two unless the number of students present for a lab session is odd. Lab partnerships are routinely changed and likewise adjusted on the fly as needed.

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 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 questions are correctly answered and tasks accomplished within the time allowed without having to resort to trying most possibilities. 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 your answers and to likewise explain 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 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 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 activity.

In order to facilitate interaction and to focus on the task at hand, each team is limited to the use of just one computer, and this limitation will be strictly enforced. Generally, the use of cell phones, tablets and any other such devices during lab will be disallowed. Although computers are available in the lab classrooms, each team is encouraged to make use of one team member’s personal computer instead. The main reason for this has to do with the establishment and maintenance of appropriate and productive work environments on the machines. Past practice indicates that students prefer this arrangement and it has been effective.

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.

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.