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

DATE: Fall 2023 (August 28, 2023 - December 16, 2023)  

INSTRUCTOR: P. M. Jackowitz  
OFFICE: LSC 192  
OFFICE HOURS: As posted (online and office door), and by appointment.  
(Additionally “Zoom particulars” will be provided for remote access.)  

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Catalog Description:  

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: Upon completion of the course, a successful student will have the ability to do  
each of the following:  
1. Explain the role of software in computer systems.  
2. Explain concepts and terminology of Object-Oriented Software Development.  
3. Explain the purpose and use of an IDE (Integrated Development Environment) in the development of software.  
4. Read, understand and explain source program components written in the Java programming language.  
5. Readily make use of Java’s String class along with several other such classes from the Java Standard Library.  
6. Research and make use of other classes from the Java Standard Library, although they may not have been  
actually demonstrated nor used during the course.  
7. Formulate an abstraction and express it as a complete Java class specification consisting of variables (instance  
and otherwise), and methods serving as constructors, observers, mutators, privates, and others as appropriate.  
8. Develop a Java application program to perform some well-defined task making appropriate use of user-defined  
classes as well as classes from the Java Standard Library.  
9. Make appropriate use of Java’s primitive (i.e. intrinsic) data types, operators and control structures, and  
furthermore have the ability to readily master those similarly available in other programming languages.  
10. Make appropriate use of the array data structure in the solution of problems and the specifications of tasks  
for a computer to carry out, and to appreciate that other data structures exist and may be applicable.  
11. Explain searching and sorting in general and be familiar with specific algorithms for each.  
12. Recognize the use of recursion and be able to explain it as an alternative to iteration.  
13. Recognize the use and potential value of inheritance in the design of software components.  
14. Recognize the use and potential value of interfaces in the design of software components.  

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:

Quizzes: (announced 1 class in advance) 20%
(Several (at least 5) short (10 min.) graded activities will be undertaken during class meetings as a means of providing feedback to both instructor and student. It is planned that the lowest grade will be dropped in determining an average.)

Tests: (approximate date)

Week of October 2nd 20%

Final Exam: (comprehensive, combined; TBD Dec 12th - 16th) 40%

Assignments:

Submission and Assessment 20%

Attendance and Class Participation considered.
(Your non-tardy attendance at all class meetings is expected, and so is your participation in these meetings. The accumulation of more than four absences may result in a diminished final course grade.)

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. Instructors are authorized to use their judgement and discretion to require students to clean and sanitize workstation areas and surfaces, maintain specific social distance and to wear masks.

Lectures:

• please sit in the same seat for every class meeting
• feel free to ask and answer questions, and to contribute to discussions
• classroom use of electronic devices/gadgets (including computers) is at the full discretion of the instructor. (Distracting others or yourself will not be tolerated.)

Tests and Quizzes:

• always announced in advance, and no make-ups will be given
• notice must be given if a test must be missed due to serious illness or emergency

Assignments:

• assignments are activities accomplished outside of class meetings that require the development and submission of specified items (typically source programs) that may be tested, evaluated and graded
• each student is required to do his/her own work on each assignment
• discussions and mutually beneficial collaboration among students is encouraged, but must not be to the point of representing someone else’s effort and understanding as your own as this would be considered to be academic dishonesty (See Academic Code of Honesty in the Student Handbook at: https://catalog.scranton.edu/mime/media/view/55/6754/2021-2022-Student-Handbook+.pdf
• academic dishonesty will be dealt with severely
• each assignment will have a specified due date and work submitted after the due date is considered to be "late", and may not be accepted for testing, evaluation and grading and if accepted may be assessed a late penalty. Consideration of whether or not worthwhile preliminary work had been submitted prior to the due date will be given.
• incomplete work generally will receive a grade much higher than zero
• work not submitted will receive a grade of zero

Other:

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