CS 202 – Introduction to Computer Science – Fall 2016

Instructor
Diane Rudolph, drudolph@cs.siu.edu, phone 453-6036

Office Hours
MF 9:00 AM – 10:30 AM, EGRA 307A
M 1:00 PM – 2:30 PM, EGRA 307A
W 1:00 PM – 2:30 PM, EGRA 307A

TAs
Ariel Godinez, godiarie@siu.edu
Mahesh Rebba, maheshchandra.rebba@siu.edu
Rishitha Nimmagadda, sip:rishitha@siu.edu

Office Hours – Room EGRA 0409
T: 11:00A – 1:00P; W: 2:00P-3:00P
W: 1:00P – 3:00P; R: 11:00A -1:00P; F: 1:00P - 3:00P
M: 2:00 – 3:00 P; T: 10:00A – 12:00P

Lectures
MWF 11:00 – 11:50 AM, FANR 1326

Lab Sessions
Section1, W 9:00AM – 10:50 AM, ASA 112E
Section2, T 1:00PM - 2:50 PM, ASA 112E
Section3, T 3:00 pm - 4:50 PM, ASA 112E

Comprehensive MidTerm Exam –
Wed, Oct. 12, 2016, 11:00 – 11:50, FANER 1326

Comprehensive Final Exam –
Fri, May 12, 2016 10:15 – 12:15, FANER 1326

TEXTBOOK

METHOD OF EVALUATION:
The course grade will be determined by an overall percentage of the total points (total points earned / total points possible). The total points will be earned in the following manner:

<table>
<thead>
<tr>
<th>Graded Item</th>
<th>Points</th>
<th>Approximate Possible Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive Midterm Exam</td>
<td>150</td>
<td>15%</td>
</tr>
<tr>
<td>Comprehensive Final</td>
<td>200</td>
<td>20%</td>
</tr>
<tr>
<td>Lecture Coding Quizzes (11 @ 25pts. each, drop lowest)</td>
<td>250</td>
<td>25%</td>
</tr>
<tr>
<td>Lecture Coding Assignments (11 @ 35 pts. each, drop lowest)</td>
<td>350</td>
<td>35%</td>
</tr>
<tr>
<td>Lab Coding Exercises/Attendance (12 @ 5 pts. Each, drop lowest)</td>
<td>55</td>
<td>5%</td>
</tr>
<tr>
<td>Total Points</td>
<td>1005</td>
<td></td>
</tr>
</tbody>
</table>

Overall percentage of total points earned will be assigned a letter grade from the following scale:
90s = A, 80s = B, 70s = C, 60s = D, below 60 = F

Required Materials:
- The textbook (see textbook acquisition information above)
- Either a USB drive or a cloud storage account for storage of computer programs developed during this course
- Either time spent on a SIUC lab computer or a home computer will be necessary to complete the assignments for this course
- For work on your home computer it will be necessary to install both the free Java SE(Standard Edition) Software Development Kit and a free IDE application for editing and compiling programs. The free Eclipse IDE application will be discussed during the first two weeks of class.
GOALS OF THE COURSE:
- To provide a basic understanding and the fundamentals of computer hardware and software
- To learn programming and object-oriented design using Java
- To learn a disciplined and structured approach to the development of computerized solutions to problems.
- To obtain a good foundation for further study in computer science.

COURSE TOPICS:
1. Basic Concepts of Computer Science
2. Problem Solving Algorithms and Techniques
3. Program Design and Development
4. Digital Representation, Storage and Manipulation of Primitive and Object Data
5. Writing and Computer Evaluation of Arithmetic, Relational and Logic Expressions
6. Algorithmic Control Structures of Sequence, Decision and Repetition
7. Keyboard and Text File Input and Output Processing
8. Data Storage via Arrays and ArrayLists
9. Object-oriented Programming Concepts of Classes and Objects
10. Problem Decomposition using Class Methods
11. Object-oriented Encapsulation, Inheritance and Polymorphism Concepts
12. Error and Exception Handling

IMPORT COURSE INFORMATION:
- Attendance is essential and expected for all lecture and laboratory classes. The student is solely responsible for obtaining any information presented in class or lab during an absence. Not only will absences likely impact the quality of your work and the level of your understanding the concepts, frequent absences may result in points being deducted from your cumulative score (which may lower your final grade).
- The lab time each week will provide an opportunity for hands-on coding demonstrations, time for in-class practice activities and some time for students to work on programming assignments with the teaching assistants present to answer questions and provide guidance. Students are strongly urged to attend these sessions as minimal time will be devoted to lab assignment questions in the lecture sessions.
- Typically students find programming courses to have a higher degree of difficulty and require more effort outside of class to maintain the success level in the course that they desire. Students may find that they require considerable SIU computer lab or home computer time to practice concepts and to complete programming assignments.
- All programming for the course will be done with the Java programming language.
- Because class times are limited, not everything that you are expected to learn will be covered during the lecture and lab times. You will be tested on the available course materials and resources even if it has not been discussed during class time.
- Most of the course grade will be based on the in class exams and quizzes. Exams and quizzes will consist not only of objective and short-answer type questions, but will also require students to write code on the exams. Don’t expect to get a good grade for the course if you do well on the labs and out-of-class programming projects, but then do poorly on the exams. Makeup exams will not be offered except under very exceptional circumstances.
- No makeups will be given for missed lab exercises.
You will typically have a quiz during every Friday lecture period. The quiz will cover the material discussed up through the previous class. No makeups will be given for weekly lecture quizzes, but the lowest quiz score will be dropped.

Lecture assignments will not be accepted late in this class, so start early and remember you are working with technology, which will typically fail when you need it most and at the last minute. For the weekly assignments the lowest assignment score will be dropped.

Programs that do not compile or do not run at least partially, will generally not be graded (i.e., grading will not be done entirely by reading program source code). Such submissions will be assigned a score of a zero (0). Again, the assignments in a programming course are typically not successfully accomplished in the last few hours or day before the due date, so begin work on each programming assignment as soon as possible so that you are not faced with a program that is almost complete but is stuck on one problem that will not let the program compile, which will make your effort worth zero points.

You will be instructed as to how to submit your (Java) programs electronically and you will be required to submit a zipped (compressed) copy of your programming assignment. However, you will also be required to turn in a printed copy of all source code for your programming project before the start of the lecture class on the due date of the assignment.

CS202 is the prerequisite for CS220 and it (CS220) will not cover basic programming.

CHEATING

All programming assignments should be individual and not collective efforts, unless otherwise indicated by the instructor. A key objective of this course is that a student will develop certain basic programming and computational logical skills. A key factor in a student being successful in developing these skills is that the student independently work through the critical thinking and problem solving activities that are major parts of a computer programming assignment. Thus, work on labs, projects or other graded assignments is required to be done independently.

If you receive any substantive assistance from fellow students, friends, computer support personnel, or from code you find on the web, you will be considered to have cheated. If you have questions about an assignment, talk with the instructor or the TA only.

Students who cheat will receive zeros for the assignment. Second occurrence may result in Failing the course and lead to suspension from taking CS courses or even suspension from SIUC. This policy will be announced in class and presented in the D2L course management system, and you will be considered to be aware of it if you continue to be enrolled in the course.

Likewise, you are not to provide substantive support to a classmate. The person providing this type of assistance will be considered just as guilty of providing solutions that lead to non-independent work by a classmate. Making code available to another student in whatever manner (hard copy, soft copy or extended screen views) is prohibited. In general, you should not discuss specific algorithm or coding approaches to solving the programming problem with anyone other than the instructor or a TA.

The main point of assignment homework and labs is to allow you to practice the concepts and techniques so that you will do well on the exams and quizzes. A majority of your overall grade will be determined by your exam and quiz performance, so you want to utilize the other classwork to help you prepare the exams and quizzes.

EMERGENCY PROCEDURES
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT)
program. Emergency response information is available on posters in buildings on campus, available on BERT’s website at [www.bert.siu.edu](http://www.bert.siu.edu). Department of Safety’s website [www.dps.siu.edu](http://www.dps.siu.edu) (disaster drop down) and in Emergency Response Guideline pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.