CSc 2720 Data Structures  
Spring 2019

Instructor  
Soukaina Filali Boubrahimi (sfilaliboubrahimi1@cs.gsu.edu)

Office Location  
Room 721, Sun Trust Building, 25 Park Place

Office Hours  
Wednesday 12 pm – 2 pm (and by appointment)

TAs  
Xiulong Yang (xyang22@student.gsu.edu); Office Hours: M 1-3 (1PP, 639/640)  
Adrash kumar Rai (arai9@student.gsu.edu) ; Office Hours: TR 1-3 (25PP, 650M)

Meeting Times  
MW 03:30 pm – 04:45 pm – Classroom South 101

Class Website  
https://grid.cs.gsu.edu/~sfilaliboubrahimi1/csc2720.html

INFORMATION

<table>
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<tr>
<th>Prerequisite</th>
<th>CSc 2310, CSc 2510, and Math 2211 with grades of C or higher</th>
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<tr>
<td>Software Package</td>
<td>JAVA SDK 1.8 (JDK 8) or newer version</td>
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<tr>
<td>IDE</td>
<td>IntelliJ IDEA, NetBeans 7.1 or newer version, Eclipse (recommended)</td>
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<tr>
<td>Contact Hours</td>
<td>2.5 hours/week (lectures, discussion)</td>
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| Lab Hours         | CRN-16733, Sec-024, F 12:00 pm-12:50 pm  
                  | CRN-16734, Sec-021, F 01:00 pm-01:50 pm  
                  | CRN-16732, Sec-027, F 02:00 pm-02:50 pm |

Classroom South 200

COURSE CONTENT

Students are expected to apply their knowledge obtained from CSc 1302. This class will concentrate on Data Structures rather than Java syntax and semantics. However, students will be using Java to implement the various Data Structures that will be covered in class. It is expected that students will read the slides ahead of lectures so that they are prepared. The instructor would evaluate students’ performance based upon the following with regards to both assignments and exams: 1. Analysis. 2. Description. 3. Understanding. 4. Preparation. 5. Completeness. 6. Correctness. 7. English Grammar, etc.

TOPICS COVERED

• Stack  
• Queue  
• Linked List  
• Arithmetic Expression Evaluation  
• Generics and Collections  
• Sorting  
• Tree  
• Searching  
• Complexity Analysis  
• Tables and Priority Queue  
• Graph algorithms

COURSE GOALS

The students must be able to:

1. Take a problem and think through a solution which they can now write a program successfully.
2. Add to their knowledge they acquired from the foundation classes with respect to Java.
3. Develop simple data structures such as an ArrayList from scratch.
4. Apply these data structures when developing their application programs.
5. Become familiar with the Java Library and be able to use contents from the Library to build their program.

ASSIGNMENTS & TESTS

There will be two midterms, one lab project, the final exam and several programming assignments. In each lab session, students need to solve a programming problem.

<table>
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<tr>
<th>Midterms</th>
<th>20% – Wednesday, 02/20/2019 and Monday, 03/25/2019</th>
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<tr>
<td>Final</td>
<td>20% – TBD</td>
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<tr>
<td>Homeworks</td>
<td>25%</td>
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Project 15% (each group will have 4 members)
Labs 20% Adjustments may be made to assignments in class.

If a student is absent, it is his/her responsibility to get such changes. NO excuses will be accepted if the assignment is changed or adjusted in class.

The distribution of points for the documentation and the execution of the program according to all of the requirements for each programming assignment are:

1. Program execution according to the requirements 80%
2. Naming of program as required 5%
3. Useful comments and readability: 15%

PLEASE NOTE:

1. Last day to withdraw is Wednesday, Feb 27th, 2019.
2. In class attendance will be taken and can directly affect your final grade - more than 10% absence can result in your withdrawal from the class with a resulting grade of "PW" and eventually "W" if you have less than 6 withdrawals OR "F" if you have more than 6 withdrawals over your degree program. Any handouts and assignments missed will be the sole responsibility of the student.
3. PLAGIARISM: All work submitted for grading must be the student's own work. Plagiarism will result in a score of 0 for the work or dismissal from the course and the Dean of Students Office will be notified. No copying from another student’s work is allowed. It is the students' duty to allow no one to copy his or her work. If it is found, in the opinion of the instructor, that one student copy from another, both papers will be given 0 regardless of who copied from whom.
4. Please refer to the handout on Programming Assignments for complete details on submission requirements.
   - All assignments are due no later than 11:00 p.m. on the due date.
   - All assignments turned in must be on the web site iCollege (D2L - https://gastate.view.usg.edu/) consisting of the source code (all .java and .class/.jar files ). MAKE SURE YOUR NAME IS ON THE FILE.
   - NOTE: You will NOT be able to turn in an assignment later than 11:00 p.m. on the due date because the website will not allow you to do so.
   - Any assignment turned in without either the .class/.jar or the .java files will immediately lose 50%. Turn in whatever you have so that you may at least get some points.
   - Generally, all assignments and tests will be graded and returned within ONE week. If for some reason, I am unable to do so, students will be notified.
5. No make up test will be given. If you will be absent for a test due to sickness, your case may be considered(i.e. you may or may not be given a make up exam) based upon a letter from a medical doctor or a legal office written on that doctor's letter head or the legal office's letterhead, stating that you were unable to attend school (and hence take the exam) on the given day. Absolutely no make up or excuse for the final exam. If for some medical or legal reason you cannot take the final exam, then you should consider applying for an Incomplete.
6. If you are taking more than one class during this semester, make sure that your final exams are not "clustered". That is, you do not have exams close to each other. Notify me by September 19th, 2018 if this is your case. Do not wait for the last moment - i.e. 2 or 3 days before the final exam.
7. I will give neither extra assignment nor exam at any time during the semester to boost your grade.
8. Very Important - Please Turn Off All Electronic Devices during class time. This includes (but is not limited to) all laptop computer, hand held devices, cell phones, etc. The only exception is if the instructor ask that you turn on such devices or if you submit a letter from the disability office that are for you to use electronic devices. If you do not comply with this simple request, the Instructor will ask that you leave the classroom.
10. If you need extra time to take exams, please make arrangements with the disability services.
11. I MAY schedule seating arrangements for exams!!!!!!

GRADING:
A……100%-90%, B……89%-80%, C……79%-70%, D……69%-60%, and F…….59%-0%.

DISRUPTIVE BEHAVIOR
Behavior that disrupts the classroom learning environment will not be tolerated. Such behavior includes (but are not limited to) talking during class, use of cellular phones during the class and violent behavior or speech. Students exhibiting such behavior will be removed from the class and be withdrawn from the course with a grade of WF.

ACADEMIC HONESTY
You are permitted to talk to other students about homework. However, you may not present other people’s work as your own. It is not acceptable for one student to write a solution for another student to copy. All work submitted for grading must be the student’s own work. Plagiarism will result in a score of zero on the test or paper, or dismissal from the course. Also, the Dean of Students office will be notified. You must work independently during exams. You may not share calculators or pass notes during the exams.

STUDENTS WITH DISABILITIES
Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Office of Disability Services; (2) bring to a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class. For more information about services available to GSU students with disabilities, contact:

The Margaret A Station Office of Disability Services
Suite 230 Student Center
Georgia State University
Voice and TDD
Telephone: (404) 463-9044
Web Address: www.gsu.edu/disability

This course syllabus provides a general plan for the course; deviations may be necessary. Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation.

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GOOD LUCK 😊 !