**CSC 212-04 Data Structure**

**Spring 2017**

**TR 12:25 - 1:40 PM**

**MO 08**

**Instructor: Amal Abd El-Raouf  
Office: MO 105  
Phone: 392-5098  
E-mail: *abdelraoufa1@southernct.edu*Office Hours: TR: 9:30- 11:00 AM**

**M: 1:30 - 3:30PM**

**Textbooks**

1. **Programming Solving with Algorithms and Data Structures**

Ebook: <https://interactivepython.org/runestone/static/pythonds/index.html>

1. **Think Python by Allen Downey**

Ebook: <http://greenteapress.com/thinkpython2/thinkpython2.pdf>

1. **Starting Out with Python (3rd Edition) by Tony Gaddis**

**ISBN: 978-0-13-285583-9**

**Prerequisite Requirement**

A grade of C or better in CSC152 is required before a student can be enrolled in CSC212.

**Catalog Description**

Techniques for representing and processing information, including the use of tables, linked lists, trees, and graphs. Comprehensive foundation of data abstraction including stacks and queues using object oriented approach.

**BlackBoard Learn 9**

All Course Materials (Syllabus, Schedules, Tasks, Grading Policies and Assignments) are available on Learn 9 for registered students **ONLY**.

To access Learn 9, Myscsu login -> Blackboard Learn 9

Enter your MySCSU username and password; Select your CSC212 class icon.

To learn how to use Learn 9 go to:

<http://www.southernct.edu/student-life/academic-success/learning-management/>

If you cannot find your CSC212 class icon, please contact the Help Desk:

|  |  |
| --- | --- |
| Email: | [helpdesk@southernct.edu](mailto:helpdesk@southernct.edu) This email address is being protected from spam bots, you need Javascript enabled to view it |
| Telephone: | (203) 392 - 5123 |

**Grading**

**Course Grade**                                            **Approximate % of Grade**  
Assignments and out-of-class Projects 40%

Quizzes 10%

Midterm Exam 25%

Final Exam 25%

All projects and assignments should be submitted electronically through the project submission interface in **Learn 9** on time. Late projects will be accepted with the penalty of 15% off every late day. No projects are accepted a week after their due date.

**Exams**

There is a quiz after each chapter. There are two **announced** examinations (Midterm and Final). No make-up quizzes/exams will be allowed without prior arrangements. Make-up exams must be taken when scheduled.

**Attendance**

Students are required to attend all classes. In case you will be unable to attend a class for emergency reason, the instructor should be notified and it is your responsibility to get the course notes, handouts, and laboratory assignments.

**The use of e-mail or messenger programs (e.g. Facebook, Twitter, …etc ) during class time is strictly not allowed.**

**Please mute your cell phone before entering the class.**

**Plagiarism**

Students are expected to uphold the University’s standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, and projects must be that of the student's own work.

For this class, it is permissible to assist classmates in general discussions of computing techniques. General advice and interaction are encouraged. Each person, however, must develop his/her own solutions to the assigned projects, assignments, and tasks. In other words, **students may not "work together"** on graded assignments.

**Withdrawal**

Full-time and part-time student may withdraw from a full semester course prior to the ninth week of classes.  Such withdrawal is recorded as a W on the transcript.  Withdrawal after the nine-week period is an exception to the general policy and may be done with the consent of the instructor (Late Withdrawal Form). Please check SCSU calendar for dates of withdrawal.

**Disabilities**

As a student with a disability, you are qualified for any accommodation needed. Please make an appointment with the Disability Resource Center (DRC), in EN C-105A and notify the instructor as soon as possible. All information and documentation of disability is confidential.

**Sexual Misconduct**

Southern Connecticut State University is highly committed to providing you with an educational experience that is academically and socially enriching. In line with this mission, we enforce Title IX of the Education Amendment of 1972 which prohibits acts of sexual misconduct (sexual harassment, sexual assault, dating violence, domestic violence and stalking) at educational institutions.  To report sexual misconduct students should contact University Police at (203) 392-5375 or 911, and/or Pamela Lassiter, Office of Diversity and Equity, at (203) 392-5491and/or Christopher Piscitelli, Office of Judicial Affairs, at (203) 392-6188.  For advocacy and further information including your Title IX rights and reporting procedures visit the Sexual Assault Resource Team (S.A.R.T.) website at [www.southernct.edu/SART/](http://www.southernct.edu/SART/). Please contact Catherine Christy, Women’s Center and S.A.R.T. Coordinator, at (203)392-6946 for assistance or with any questions regarding support and advocacy.

**Preliminary Schedule**

|  |  |
| --- | --- |
| **Week** | Subject |
| **1** | Course introductionPython Basics |
| **2** | Python Basics Continue |
| **3** | Classes and objects, exception handling. |
| **4** | Algorithm Efficiency and Analysis |
| **5** | Basic data StructuresStack Data Structure |
| **6** | Balanced Symbols/Parentheses **Queues and Deques** |
| **7** | Linked Lists **Midterm Exam** |
| **8** | Linked Lists Continue |
| **9** | Recursive Algorithms |
| **10** | **Searching** |
| **11** | **Hashing**  **Sorting** |
| **12** | **Trees and Trees Algorithms** |
| **13** | **Trees and Trees Algorithms Continue** |
| **14** | **Review**  **Final Exam** |