

**CMPS 110  
COMPUTER SCIENCE SEMINAR I  
SPRING 2018**

**2017 - 2020 Catalog Data: CMPS 110 COMPUTER SCIENCE SEMINAR I**

(Credit, 1 hour) (Lecture, 1 hour). This is a two-part sequence course designed for freshman computer science majors. These courses provide a comprehensive overview of the scope and dynamics of computer science. Topics such as history of computing and technology, computers in modern society, computer application, legal and moral issues of computing and the computer scientist as a professional will be covered. A term project will also be assigned. Prerequisite(s): None

**Textbook:** Nell Dale and John Lewis, *Computer Science Illuminated with Navigate Advantage Access*, 6<sup>th</sup> edition, Jones and Bartlett Learning, LLC, 2016. ISBN: 9781284059144

**Lectures:** 11:00 AM – 11:50 AM, W  
204 Thurman Hall

**Instructor:** Assistant Professor: Dr. Lynette Jackson  
Office Location: E104 Thurman Hall  
Office Hours: 9:00 a.m. – 10:50 a.m. Tuesdays and Thursdays  
Office Phone: (225) 771 – 5958  
E-mail: lynette\_jackson@subr.edu

**Course Coordinator:** Dr. Oleg Starovoytov

**Course Objectives:**

The objectives of this course are to cover:

1. the history and culture of Computer Science
2. information encoded and decoded by computers.
3. major components of computers, and how they work together.
4. the importance of algorithms to Computer Science.
5. various ways in which computers are used to solve problems.
6. To apply critical reasoning to real-world problems involving computers.

**Course Learning Outcomes:**

Upon successful completion of CMPS 110, students will be able to:

1. Describe how computer hardware represents information.
2. Describe the computer circuitry that harnesses the electrical flow.
3. Explain how computing components may be combined to build computer systems.
4. Apply general problem-solving strategies to the development of computer algorithms.
5. Explain the application of abstract data types such as stacks, queues, and trees.
6. Apply the object-oriented methodology to computer problem solving.

**Course Educational Strategies:**

1. Provide clear lectures and discussions of appropriate computer science concepts.
2. Provide students with the opportunity to learn course material through reading, online assignments, and projects.
3. Allow students to demonstrate mastery of the course concepts through submitted exercises such as projects, quizzes, and other assignments.
4. Provide students with the opportunity to learn more about various branches of computer science through the application of object-oriented programming to real world problems.

**Course Weekly Content: (subject to change)**

Week	Topic
1	Orientation and Introductions

2	The Big Picture: computing systems, history of computing, computing as a tool
3	Binary Values and Number Systems: numbers and computing
4	Binary Values and Number Systems: binary, octal, and hexadecimal
5	Data Representation: data and computers, representing numeric data and text
6	Gates and Circuits: computers and electricity, logic gates
7	Gates and Circuits: combinational and integrated circuits
8	Computing Components: individual computer components, stored program concept
9	Low-Level Programming Languages and Pseudocode: machine and assembly languages
10	Problem Solving and Algorithms: how to solve a problem, simple variables, composite variables
11	Problem Solving and Algorithms: searching and sorting algorithms
12	Abstract Data Types and Subprograms: stacks, queues, lists, trees, graphs
13	Object-Oriented Design and High-Level Programming Languages: procedural and object-oriented design
14	Project Presentations
15	Project Presentations

## Administrative Information and Requirements

### Course Requirements:

The student is expected to:

1. purchase the course textbook and Navigate Advantage Access code by the second week of classes
2. read assignments to prepare for scheduled discussions of the material
3. access online course materials to obtain assignments and related materials
4. attend all classes to ensure that expectations are understood, and give feedback to monitor and assess progress
5. complete each graded activity at the scheduled time (Should one of these activities be missed, the grade for the next activity of the same type will be used for both.)
6. place cell phone either in the off position or kept on vibrate during lecture
7. demonstrate knowledge of the subject through 9 quizzes, 9 reading assignments, 14 programming assignments, and a project.

Exam Information: N/A

## Grading Distribution

A student's grade at the end of the semester will be determined by following percentages:

Quizzes/Assignments	75%
Special Projects/Reports	25%

## Grading Scale

Course grades at the end of the semester will be given based upon performance using the standard grading scale:

90– 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
Below 60%	F

## Course Communication

When sending any electronic correspondence (via your SUBR email address) to the instructor, please include the following:

- Subject: First and Last Name, CRN
- Greeting: Dear Dr. Jackson,
- Body of message: clearly state your concerns and/or problems, do not use text message lingo
- Signature: First and Last Name, Course Information

Note: If you have followed the above format, then you can expect that the professor or teaching assistant will respond to your e-mail message within 48 hours during the week. **Visit during office hours if an urgent issue surfaces.**

**LIVETEXT SUBSCRIPTION** – Southern University and A&M College-Baton Rouge has entered into partnership with

LiveText, Inc. to provide online academic resources for student collaboration and learning outcomes assessment. Therefore, all students enrolled in this course are required to purchase a subscription from LiveText, Inc. through the Southern University Bookstore. LiveText, Inc. provides students with the electronic tools and services needed to serve them in their courses and in their career or academic pursuits beyond graduation.

LiveText is a dynamic tool that will enable you to:

- Create electronic portfolios for storing and displaying coursework for use anytime and anyplace.
- Share your resumés, professional portfolios and virtually any projects that can be photographed, video recorded, and uploaded to prospective employers and others who need or want to know about your accomplishments.
- Engage in discussion boards with other students, exchange feedback, and create study groups and other types of social networks.
- Complete assignments in key/required courses where LiveText has been embedded (without LiveText, you will not be able to complete these assignments).
- Create a complete record of your academic career that is malleable and easily accessible.
- Engage in developing a results-driven culture of assessment at Southern University.
- Participate in a process that will allow for data-driven curricular improvements that foster improved student learning and performance.

**MOODLE ACCESS** – Southern University and A&M College at Baton Rouge will use Moodle extensively in this course. Moodle is a learning management system designed to help teachers and students communicate effectively online. The course syllabus, class materials (e.g., handouts, PowerPoint slides, journal articles, assignments, readings, etc.) will be placed on Moodle. The student should check Moodle DAILY for all assignments submitted via Moodle. If the student has problems with his Moodle account, he/she should contact Ms. Chrisena Williams-Brown in the Division of Information Technology via email at [chrisena\\_williams@subr.edu](mailto:chrisena_williams@subr.edu) or via phone at (225) 771-5017.

**ACADEMIC DISHONESTY** – The University defines academic dishonesty as premeditated and un-premeditated fraudulent behavior. Premeditated fraud is defined as conscious, pre-planned, deliberate cheating with materials prepared in advance. Unpremeditated fraud is defined as cheating without the benefit of materials prepared in advance. See the Southern University and A & M College Catalog for a more detailed definition of academic dishonesty. In addition, administrative regulations governing the conduct of students enrolled at the University are contained in the Code of Student Conduct. A copy of the Code of Student Conduct may be obtained from the Office for Student Affairs.

**ADA COMPLIANCE** – Students with documented disabilities who believe that they may need accommodations in this class are encouraged to contact the Disability Services Coordinator in the Office of Disability services, 234 A.C. Blanks Hall, 225-7713950 (Voice/TTD), 225-771-5652 (Fax), as soon as possible to ensure that such accommodations are implemented in a timely fashion. Students who need accommodations must be registered with the Office of Disability Services. Students are responsible for informing the instructor of any instructional accommodations and/or special learning needs at the beginning of the semester. All discussions will remain confidential.