Baton Rouge Community College
Academic Affairs Master Syllabus

Date Approved: May 4, 2017

Term and Year of Implementation: Spring 2024

Course Title: Software Design and Programming I

BRCC Course Rubric: CSCI 1933

Previous Course Rubric: CSCI 193

Lecture Hours per week-lab hours per week-credit hours: 3.0

Louisiana Common Course Number:

CIP Code: 11.0201

Course Description: Introduces the first of a two-course sequence intended for students wishing to transfer to a four-year institution for a major or minor in computer science. Offers a disciplined approach to problem solving, program design, algorithms, and logic development. Uses high-level programming language as a vehicle for expressing algorithms.

Prerequisites: CSCI 1923 (or CSCI 192) or instructor's approval

Co-requisites: None

Suggested Enrollment Cap: 20

Learning Outcomes. *Upon successful completion of this course, the student will be able to:*
1. Examine the anatomy of a simple C++ program.
2. Discuss data types, expressions, and input/output.
3. Recognize loop control strategies and looping operations.
4. Analyze value-returning functions.
5. **Create a C++ program.**

General Education Learning Outcome(s): This course supports the development of competency in the following area(s). Students will:

Assessment Measures. Assessment of all learning outcomes will be measured using the following methods:
1. Instructor prepared tests and final exam
2. Homework assignments
3. Programming Projects

- *Instructor's Information:*
    Name: David L. Sylvester, Sr., Professor
    Office Location: Rm 247, Cypress Building
    Email: sylvesterd@mybrcc.edu
    Office Phone: (225) 216-8152
    Office Hours: Mondays   11:15 am – 12:00 pm & 1:15 pm – 2:30 pm
                         Tuesdays/Wednesday/Thursdays   10:00 am – 12:00 pm (virtual)

- *Additional Course Information:*
    CSCI-1933-M01 CRN: 20281
    Time/Day(s): Mondays 10:00am – 11:15am
    Building/Room: 206 Cypress Bldg.
    Signing Roll: Signing of roll (**Anytime on Mondays**)

    > **You must register on the www.syl9.com website to sign the roll. The roll is to be signed every Monday.**
    > **You are to read the chapters and watch recorded lectures and review chapter content.**

- *Text Book(s)*
    Name of book: Starting Out with C++ (From Control Structures through Objects) 9th Edition
    Author: Tony Gaddis
    ISBN: 978-0-13-449837-9

- *Needed Materials:*
    ✓ Students must have regular access to a personal computer system that is Microsoft Windows-based and has an Internet connection.
    ✓ Computer with a Webcam or Cell Phone (for unforeseen circumstances)
    ✓ Installed C++ compiler.
    ✓ Installed Secure Exam Proctor (Proctorio) extension into CHROME browser.
    ✓ Access to BRCC assigned email and CANVAS. (If you have issues with your BRCC email or CANVAS login and/or password, please as soon as possible contact the IT Department.)

- Downloads Links
    - Secure Exam Proctor (PROCTORIO) - (Need to download and install to take tests and quizzes.)
    - Visual Studio 2017, Visual Studio 2022 or higher (Compiler needed to complete programming assignments.)
    - Solo Learn (Interactive lesson for learning to code.)

- *Important Links:*
    ✓ BRCC's Home Page – www.mybrcc.edu
    ✓ CANVAS – https://mybrcc.instructure.com
    ✓ LOLA – http://my.lctcs.edu/cp/home/displaylogin
    ✓ Course Webpage – www.syl9.com
    ✓ Streamed Lectures

    All course material must be available for use by first week of school.

- *Disability Statement***:** If any student in this class has a need for accommodations because of a documented disability, please feel free to discuss them with me privately. The college has professionals to guide, counsel, and assist students with disabilities. The Office of Disability Services, located in the Student Center in Room 241, will evaluate, and meet with you to discuss your accommodation needs.

- *Student Conduct in Class Policy (In-class and Online):* Any acts of classroom disruption that go beyond the normal rights of students to question and discuss with instructors the education process relative to subject content will not be tolerated. Any issue needing to be resolved must be done first by setting up an appointment or meeting with the instructor immediately after class. If not resolved, then set up a meeting with the Department Chair, followed by a meeting with the Dean.   **If after evaluating this classroom environment (instructor, fellow students, lab conditions, etc), you feel uncomfortable in ways that may allow you not to perform as a student in a respectful matter toward others, you are advised to make previsions to find another class setting.**

- *Grading:* Students are expected to take or submit assignments/tests on the date specified on the syllabus or as per the instructor's request. Late work will not be accepted!!! Students must make backup copies of all assignments. Backup copies will prevent loss of work due to viruses, damaged disks, etc.

  GRADING SCALE: **GRADING:**
  A 90 – 100   Exams (30%)
  B 80 – 89   Quizzes (15%)
  C 70 – 79   Final Exam (20%)
  D 60 – 69   Discussions/Grader Projects/Reports (35%)
  F 59 – below   Bonus (5%)
  I Incomplete
  W Withdrawal

- *Attendance Policy***:** All in-class assignments are to be done during the current class session. Students are expected to arrive to class on time and remain for the entire class period. In-class quizzes will begin promptly at the start of the class period. **No makeup quizzes**. It is BRCC's policy that all students must attend class. In this class, you will be signing the roll online through the www.syl9.com website on the designated day. It is also very important that you sign into CANVAS beginning on the first day of class and complete assigned work. A failure to do this can and will cause you to be dropped from the class, within the first 14 days of the semester.

- *General Policies***:**
  - ✓ Take tests and quizzes on CANVAS using Secure Exam Proctor (PROCTORIO).
  - ✓ Do not Shut Down computers or Print without the Instructor's Permission
  - ✓ All computers are to be used for course work only.
  - ✓ No Games. Students may follow along with the current lesson on the computer. However, no miscellaneous typing on the computers or talking during lecture and instruction time or while another person is reading aloud.
  - ✓ Absolutely no talking during test or exam periods (direct all questions to the instructor). Once the test or exam has started, students that do not have their materials for testing may leave quietly to purchase necessary items.
  - ✓ No eating or drinking in the computer labs.
  - ✓ All cell phones and pagers must be put away and placed on vibrate. Answer all calls outside of the classroom.
  - ✓ Absolutely no audio and/or video recording during class time. Students with disabilities needing to record audio and/or video during class needs to acquire the proper documentation from the Office of Disability Services, then submit approved documentation to the instructor.
  - ✓ Make sure that you submit paperwork from Disability Services for any special needs for the class.

- ***Withdrawing From a Course:*** It is the student's responsibility to withdraw from a course if he/she fails to meet all course requirements (i.e. passing of all quizzes, assignments, exams, and attendance). The last day to withdraw from courses:

  15 Weeks – (Thursday, March 28th)
  12 Weeks – (Friday, April 12th)
  1st 7 Weeks – (Friday, February 23rd)
  2nd 7 Weeks – (Friday, April 26th)

- ***Cheating and Plagiarism***: <u>Plagiarism</u> is defined as using and passing off as one's own ideas, data, or writings of another or presenting as one's own idea or product derived from an existing source.

  <u>Cheating</u> is defined as obtaining information through fraud or deceit: either by the use of unauthorized notes, books, or other sources prior to or during examinations, or by using information under false pretenses. It includes premeditated cheating, which is defined as conscious, pre-planned, deliberate cheating with materials prepared in advance.

  Students are expected to uphold the school's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work. Students shall be guilty of violating the honor code if they:

  1. Represent the work of others as their own.
  2. Use or obtain unauthorized assistance in any academic work.
  3. Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
  4. Give unauthorized assistance to other students.
  5. Misrepresent the content of submitted work.

  The penalty for violating the honor code is severe. Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the appropriate authority. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

  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 or her own solutions to the assigned projects, assignments, and tasks. In other words, students may not "work together" on graded assignments and submit similar copies of the same project. Such collaboration constitutes cheating. A student may not use or copy (by any means) another's work (or portions of it) and represent it as his/her own. If you need help on an assignment, contact your instructor.

- *[Safety Concerns](#)*: A student's safety is important in the learning process. Please report any suspicious activity to the Office of Public Safety at 216-8888 and use the red telephones in the halls and classrooms, the outdoor blue light pole phones, or the garage emergency phones located on all floors.

  All students are encouraged to sign up for BRCC's emergency notification system. BRCC Connect Emergency Notification provides enhanced emergency communication through text alert, phone messages, emails, and social media updates. Students can register for BRCC Connect through the student login portal at https://brcc.bbcportal.com. The URL for BRCC's safety information is: https://www.mybrcc.edu/administration_and_finance/public_safety/index.php.

If necessary, please exit the building quickly, and once outside continue to a safe distance away from the building. Take your possessions with you.

- **_COVID-19 Reporting Protocol_** *(For all Classes)*
  If a student has a COVID – 19 positive test result, possible exposure to COVID - 19, or is experiencing signs/symptoms of COVID – 19 a report should be entered into BRCC Cares using the (Request for Assistance Form). If the report is made to faculty, faculty will enter the report.

Request for Assistance	Students Faculty Staff	This form should be utilized for students who have a concern or charge of dissatisfaction with a person, service or process that requires clarification, investigation, and/or resolution. This form should also be utilized for Students, Faculty and Staff who wish to report medical concerns related to illnesses that may impact the College community.

  The report will be reviewed by the Dean of Students. A communication will be sent to the student to self-quarantine for 14 days or until they have been sign/symptom free for at least 72 hours and have a negative COVID – 19 test.

  The Dean of Students will then notify any other students, who share classes with the presumptive positive student, via e-mail of the potential exposure.

  Once the Dean of Students documents that 14 days have passed and that the appropriate evidence of health status has been submitted, a communication to the student and faculty will be sent indicating the student's ability to resume instruction.

- **_Library/ Learning Resources_**: The Magnolia Library offers a diverse collection of books, periodicals, videos, and on-line resources. As a member of LOUIS: the Louisiana Library Network, we are able to provide access to our Online Public Access Catalog (OPAC) as well as to the OPACs of surrounding institutions. Our online resources include over 84,000 full-text books available through the EBSCOhost eBook Collection and a variety of databases to assist you with your scholarly research or even learn a new language.

- **_Digital Learning & Academic Support Center_** **(DLASC):** The Digital Learning & Academic Support Center, or DLASC, provides all BRCC students with a safe and supportive environment for learning that promotes peer interaction through conversation and collaboration.
  https://www.mybrcc.edu/dlasc/index.php
  - Free Tutoring and Writing Assistance
  - Study Groups and Workshops
  - Study Tips and Academic Guidance
  - Canvas Help

  Connect with the *ALC Online Tutoring and Resources* course in CANVAS to access online services. Email DLASC@mybrcc.edu if you have trouble accessing this course in Canvas.

- **_BRCC Cares_**
  · BRCC Cares is an online reporting system through which students, faculty, staff, administrators, and visitors can inform the College of students who are exhibiting concerning behavior or academic difficulty. This system will directly route reported student issues to the appropriate College representative(s) for possible intervention.

  · BRCC Cares is designed to provide a safe place for the College community to report suspected violations of the Student Code of Conduct and BRCC's Title IX and Sexual Misconduct Policy,

including but is not limited to: dating violence, domestic violence, sexual assault, sexual harassment, sexual misconduct, sexual exploitation, stalking, etc., for investigation.

· Filing a report on BRCC Cares does not take the place of calling the police in the event of an emergency or life-threatening situation.

· BRCC Cares is located at www.mybrcc.edu//brcccares or by typing "BRCC Cares" in the College website search bar.

- *PROGRAM OF STUDY*
It is very important as a student that you properly apply for the correct program of study. You can check to see if your program of study is accurately recorded by logging into LOLA.

Expanded Course Outline:

I.   An Overview of Computers and Programming Languages
        A.   Computer Hardware/Software
        B.   The Evolution of Programming Languages
        C.   Introduction to Object-Oriented Programming

II.   Basic Elements of C++
        A.   The Basics of a C++ Program and Data Types
        B.   Expressions, Input, and Output
        C.   Program Style and Form

III.   Input/Output
        A.   I/O Streams and Standard I/O Devices
        B.   Using Predefined Functions in a Program
        C.   Input Failure
        D.   Output and Formatting Output

IV.   Control Structures I (Selection)
        A.   Relational Operators
        B.   Logical (Boolean) Operators and Logical Expressions
        C.   Selection: if and if … else
        D.   Switch Structures

V.   Control Structures II (Repetition)
        A.   The while Looping (Repetition) Structure
        B.   The for Looping (Repetition) Structure
        C.   Nested Control Structures

VI.   User-Defined Functions I
        A.   Standard and User-Defined Functions
        B.   Value-Returning Functions

VII.   User-Defined Functions II
        A.   Void Functions
        B.   Value and Reference Parameters and Memory Allocations
        C.   An Introduction to Function Overloading

VIII.   User-Defined Simple Data Types, Namespaces, and String Type
        A.   Enumeration Type
        B.   Declaring Variables

IX.   Arrays and Strings
        A.   Introduction to Arrays
        B.   Introduction to c-strings
        C.   Parallel Arrays