COSC 1436 Programming Fundamentals I Syllabus

Dallas College Richland Campus

Contacting your instructor

Instructors typically respond to emails from students with 24 hours however over the weekend and holiday periods responses maybe delayed. Find out more about <u>contacting</u> <u>your instructor</u>.

Instructor Contact Information

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Course Information

Course Title: Programming Fundamentals I

Course Number: COSC 1436

Section Number: 81001

Semester/Year: Fall 2020

Credit Hours: 4 Credit Hours

Class Meeting Time/Location: Online

Certification Date: 9/5/2020

Last Day to Withdraw: 11/2/2020

Course Prerequisites

Developmental Reading 0093 or English as a Second Language (ESOL) 0044 or have met the Texas Success Initiative (TSI) standard in Reading, 2 years high school algebra and computer literacy. Additional information is available from the TSI Office in T170T or T170S (phone number 972-238-6115 or 972-238-3787).

Course Description

Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science.

Coordinating Board Academic Approval Number 1102015207.

Student Learning Outcomes

Upon successful completion of this course, students will:

- Describe how data are represented, manipulated, and stored in a computer.
- Categorize different programming languages and their uses.
- Understand and use the fundamental concepts of data types, structured programming, algorithmic design, and user interface design.
- Demonstrate a fundamental understanding of software development methodologies, including modular design, pseudo code, flowcharting, structure charts, data types, control structures, functions, and arrays.
- Develop projects that utilize logical algorithms from specifications and requirements statements.
- Demonstrate appropriate design, coding, testing, and documenting of computer programs that implement project specifications and requirements.
- Apply computer programming concepts to new problems or situations.

Texas Core Objectives

The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

- 1. **Critical Thinking Skills** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 2. **Communication Skills -** to include effective development, interpretation, and expression of ideas through written, oral, and visual communication
- 3. **Empirical and Quantitative Skills** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- 4. **Teamwork** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- 5. **Personal Responsibility** to include the ability to connect choices, actions, and consequences to ethical decision-making

6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Required Course Materials

If your Dallas College course requires learning materials they will be provided as part of the IncludED program (see dcccd.edu/included) or as free materials you can access in your online course shell.

If you opt out of the IncludED program, you are responsible for obtaining all your required learning materials by the first day of the class (for more details: <u>Institutional Policies</u>).

- **Textbook**: "COSC 1436 Programming Fundamentals I, Richland College, Custom Edition", by D.S. Malik and Joyce Farrell, 2018, Cengage Learning, ISBN 9780357038949 (print) or 9780357043783 (ebook PAC). The eBook is also part of Cengage Unlimited (ISBN 9780357700006). If you are part of the IncludEd program, you do not need to purchase this textbook, since the eBook is going to be provided to you as part of the program.
- USB flash drive, secondary storage device, or cloud storage for saving and storing the assignments and course materials (especially while using the Dell Rio drop-in lab); Identify flash drive with name, course, and section number.
- A Chromebook, tablet, or smartphone may not be suitable for some activities in this course. Please ensure you have access to a Windows desktop or laptop computer.

Graded Work

The tables below provide a summary of the graded work in this course and an explanation of how your final course grade will be calculated.

Summary of Graded Work

Assignments	Points	Totals
Orientation Quiz	1 @ 30 points	30 points
Introduction Discussion	1 @ 10 points	10 points
Lecture Tests	3 @ 160 points each	480 points
Lab Assignments	8 @ 60 points each	480 points

TOTAL: 1,000 points

Throughout the semester, students will also have the opportunity to do optional work for extra credit.

Final Grade

Points	Percentages	Numeric Grade	Letter Grade
895 -1000.00	90 -100%	90 -100	Α

795 - 894.99	80 - 89%	80 - 89	В
695 - 794.99	70 - 79%	70 - 79	С
595 - 694.99	60 - 69%	60 - 69	D
0 - 594.99	0 - 59%	0 - 59	F

Description of Graded Work

Orientation (Quiz and Discussion): There will be *one orientation quiz* (worth 30 points) that will test students' knowledge of syllabus and course orientation. Students should read the syllabus and the course orientation before taking the quiz. There will be *one introduction discussion* (worth 10 points) that will allow the students to introduce themselves to the instructor and their peers.

Tests: There will be three closed-book tests (worth 160 points each) for each unit given during the semester. Each of the tests will cover a unit of textbook material (2-5 chapters). Students should do the corresponding reading assignment and practice exercises before taking the test. Tests must be taken on eCampus within the scheduled timeframe. Tests will be scored automatically by eCampus and the students will be able to see their score immediately, unless they exceed the time limit (in which case they will see the Need Grading flag until the instructor grades it.). Take the exam earlier to avoid any extra minute penalty and to avoid last minute issues. Students failing the test or having difficulties with the test can choose to take the test again (on a new set of questions) and replace the first attempt grade. If the technical issues are on your computer, use another computer (like one of the computer from Richland open lab) to take your second attempt. Be aware that eCampus consider any started attempt as one attempt so students should not open a test unless they are ready to take the test. Anyone copying or sharing answers or other information during a test will receive a grade of zero on the test.

Assignments: There will be *eight exercise assignments* (worth 60 points each) submitted during the semester. Students should do the readings and practice exercises before starting working on the corresponding assignment. You must do each assignment yourself after you learn how. Lab assignments must be turned in on eCampus before the end of scheduled due date to receive complete credit. Start working on assignment early, to finish and submit them before the due date. No email submissions will be accepted. Anyone copying or sharing an assignment or part of an assignment (with/from another student or book, web, etc.), will received a grade of zero on the assignment. Assignments may not be turned in more than twice for credit (i.e. can correct mistakes and re-submit only once, and, in that case, only the second attempt will be graded). Student can submit an assignment late within the 24 hours after the due date with a 50% penalty. No submissions will be accepted later than 24 hours.

Final (Alternate Evaluation): During the Final Unit, students without cheating attempts, will have the opportunity to take an optional Alternate Evaluation to replace one missed or low Test, Assignment, or Orientation Quiz (one of them, not one of each). Depending on

the type of the evaluation replaced, the grade is going to be scaled to match that evaluation. The Alternate Evaluation needs to be taken in the schedule period and there is no alternate or second attempts for it.

All the course evaluations will be available on eCampus during the scheduled period and need to be submitted according to the course schedules. No late submissions or email submissions will be accepted.

All the evaluations in this course are individual therefore the collaborations or copying of work or part of the work (assignments, tests, exams, extra credit work, or any evaluation or any part of evaluation) or usage of external sources during close book or individual work evaluations is prohibited and all parties involved will receive a zero for that work/evaluation. The professor will change a grade to a zero if discovers a cheating attempt (after initially grading the evaluation).

Throughout the semester, students will also have the opportunity to do optional work for **extra credit**.

Attendance and Your Final Grade

In order to be successful students must attend and participate in the enrolled courses.

Attendance: Regular on-campus attendance is not required in this class, since it is entirely online. You will not be expected to attend any class or come to Richland College during the semester. However, it is recommended that you block out several segments of time on your weekly calendar to work on this course; otherwise, you may get behind and find that it is impossible to finish the course with a good grade. The instructor will often send you e-mail that mentions where we are in the course and what you should be doing, but it is really up to you to keep track of your work, of the schedule and when everything is due, etc.

Attendance and Religious Holidays: Absences for observance of a religious holy day that coincide with a course evaluation are excused. A student whose absence is excused to observe a religious holy day is allowed to contract with the instructor to take a make-up examination or complete an assignment within a reasonable time after the absence. During the first week of the semester, any student anticipating absence during the semester for holy days must provide the instructor with a list of the holy days that will be observed during the semester.

Late Work Policy

Student can submit a test or assignment late within the 24 hours after the due date with a 50% penalty. No submissions will be accepted later than 24 hours. No late submissions will be accepted for the orientation quiz, introduction discussion, final exam, alternate evaluation, or any extra credit work.

Other Course Policies

The key to success in this course is to start studying the materials in the textbooks, doing the lab tutorials, and doing the required exercises on time. The students need to regularly check eCampus for discussion board postings, course announcements, deadlines, and check/read the emails for class updates and news.

General Policy: This is an online class, not a self-paced class. Your work in this course should follow the Course Schedule which includes due dates for tests, assignments, discussions, and project. The key to success in this course is to start doing the assignments, studying the materials in the textbook, participate in the class, and do the required exercises in time.

Students sometimes drop a course when help is available that would enable them to continue. The instructor hopes that you will discuss your plans with her if you are considering withdrawing from the course.

Questions: Students are always welcome to stop by during the campus office hours and email the professor and ask questions as needed. While it is important for the students to begin to learn to figure things out as they learn new tasks on the computer, it is also very important for them to get help and answers to their questions as needed. However, students should not spend more than 15 minutes on a topic (do not let days and weeks go by) and ask for help. If they cannot find the answer in the textbooks, they should email the question to the instructor (please put your name, your course and section number in the Subject). The professor is going to check the email regularly (at least once-a-day weekdays, and at least once weekends and holidays) and try to answer all questions. If the instructor has not responded within 24 hours (weekdays) or 48 hours (on the weekends and holidays), the student should re-send (something must have gone wrong).

Communication: It is important for us all to establish a friendly, helpful, respectful way of communicating in this class. Please read the Netiquette information from the Course Help section in eCampus and follow those suggestions, especially when you are communicating with each other.

Tutoring and Other Assistance Policies: Tutoring is available through the STEM Center (WH159).

Academic Honesty: Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on an evaluation (test, quiz, assignment, and discussion), plagiarism, and collusion. As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog at: https://www1.dcccd.edu/catalog/ss/code.cfm (Select Purpose)

Institutional Policies

<u>Institutional Policies</u> include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.

Course Schedule

Topic/Readings	Evaluations
Orientation	Orientation Quiz Introduction Discussion
Chapter 1: An Overview of Computers and Programming Languages. Chapter 1a: An Overview of Computers and Logic. Chapter 1b: Understanding Structure. Chapter 2: Basic Elements of C++. Chapter 3: Input/Output.	Assignment 1 Assignment 2 Assignment 3 Test 1
Chapter 4: Control Structures I (Selection). Chapter 5: Control Structures II (Repetition).	Assignment 4 Assignment 5 Test 2
Chapter 6: User-Defined Functions. Chapter 7: Namespaces, the class string, and User-Defined Simple Data Types. Chapter 8: Arrays.	Assignment 6 Assignment 7 Assignment 8 Test 3
Final	Alternate Evaluation

Check the course eCampus for the detailed evaluations deadlines/due dates.

The key to success in this course is to start studying the materials in the textbooks, doing the lab tutorials, and doing the required exercises on time. The students need to regularly check eCampus for discussion board postings, course announcements, deadlines, and check/read the emails for class updates and news.

Failure of the student's Internet connection or computer issues are not the responsibility of the instructor, and therefore are not valid excuses for late work. It is your responsibility to ensure that your work is submitted in a timely fashion and before the due date and time (start submitting the evaluations on eCampus no later than 10PM on the due date to avoid last minute issues and finish it in time). The students need to have the correct email address on eCampus.

The instructor reserves the right to amend a syllabus as necessary.