### Course Information

<table>
<thead>
<tr>
<th>Programming Fundamentals III</th>
<th>Director of IT: 972-780-8076</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COSC 2436</strong></td>
<td>If you are having problems with eCampus, please call LeCroy Help Desk for technical support at 972-669-6402.</td>
</tr>
<tr>
<td><strong>Time and Location:</strong> ONLINE</td>
<td><strong>Lab Location:</strong> B116-C</td>
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<tr>
<td><strong>Credit Hours:</strong> 4</td>
<td><strong>Office Hours:</strong> By Appointment</td>
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### Important Dates:

- **Start Date:** 7/11/2017
- **End Date:** 8/10/2017
- **Drop Date:** 8/3/2017
- **Certification Day:** *7/14/2017 Online Students will obtain certification by completing Quiz 0.* This is mandatory for those students who are receiving financial aid. *

### Course Description

This is a Texas Common Course Number. 

**Prerequisite:** COSC 1437. 

**Course Description:** Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. This course may use instructional examples and assignments from various programming languages, including but not limited to C, Objective-C, C++, C#, and/or Java. COSC 2436 will satisfy the Associate in Sciences degree general elective requirement. This course will fulfill degree requirements established by the colleges of DCCCD only if this course has been successfully completed and the date of completion does not exceed 10 years. (3 Lec., 3 Lab.)

**Coordinating Board Academic Approval Number 1102015707**

### Required Materials

**Note:** Summer students, a minimum of 24 hours per week should be devoted to course material.

**Textbook:**


You can buy the book at the Cedar Valley Bookstore or Order it through an online retailer. Cengage.com will rent the book at a discounted price.

**Software**

Any free C++ compiler. I suggest DevC++ or XCode (for Mac Users)

### Course Prerequisites

COSC 1437

**Disclaimer –**

The instructor reserves the right to amend this syllabus as necessary.
Texas Core Objectives for Student Learning

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 following skills are in focus.

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. **Personal Responsibility** - to include the ability to connect choices, actions and consequences to ethical decision-making

Student Learning Outcomes

At the end of the course the student will be able to:

- Design and implement software solutions to problems using classes and objects.
- Communicate ideas and concepts clearly and in an organized manner
- Select and implement appropriate algorithms and data structures to solve problems.

CVC Learning Signature

CVC’s Learning Signature is One College Transforming Lives. Cedar Valley College establishes clear **expectations** for students through **engagement** and **empowerment** leading to **excellence**.

**CVC Faculty and Staff expect students to:**
- take responsibility for their own learning
- commit to achieving high academic performance
- be meaningfully engaged in the campus community

**CVC Faculty and Staff expect to:**
- provide students a clear pathway of instruction
- establish clear learning outcomes
- serve as role models and mentors for students
Course Outline

For maximum success in this course you should spend a **minimum** of 12 hours per week working on course material.

**The course due dates will be posted on ecampus when class starts.**

<table>
<thead>
<tr>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>Syllabus Quiz</td>
</tr>
<tr>
<td>Chapter 9 Review Records</td>
</tr>
<tr>
<td>Chapter 10 Classes and Data Abstraction</td>
</tr>
<tr>
<td>Chapter 11 Inheritance and Composition</td>
</tr>
<tr>
<td>Chapter 12 Pointers, Classes, Virtual Functions, and Abstract Classes</td>
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<tr>
<td>Chapter 13 Operator Overloading and Templates</td>
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<tr>
<td>Chapter 14 Exception Handling</td>
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</table>

**Mid-Term**

| Chapter 15 Recursion. |
| Chapter 16 Linked Lists |
| Chapter 17 Stacks and Queue |
| Chapter 18 Searching and Sorting Algorithms |
| Chapter 19 Binary Trees |

**Final Exam**

Getting Started

1. The first step in getting ready for the class is to get your computer ready before the course actually begins. In addition, you will need to have an Internet service provider established in order to connect to the Internet.

2. Logging into the Class

Open your Internet browser and type the following URL in the Address text box: [http://ecampus.dcccd.edu](http://ecampus.dcccd.edu) (or from the Cedar Valley College Home Page, click the eCampus link).

a. In the **Login Here** section, type in your Student ID# with a lower case “e” in front of the number (example: e3456789) for both the Username and the Password.

b. Click the **Login** button.

c. Please go to **Personal Information** (link is on the left) and change your Password after your initial login. (See instructions below.)

d. If you still cannot login, please contact Technical Support at [ecampus.support@dcccd.edu](mailto:ecampus.support@dcccd.edu).

e. Click the **Courses** tab and select the course you want to work in from the list of courses you are enrolled in.
3. Begin by reading the announcement.

The pace of the class is determined by the course schedule. You can work through instructional materials on your own, at times convenient to you, but you must complete the assignments by the time specified in the schedule. If you do not complete all assignments when they are due, it will become difficult to complete the course. Falling behind is the biggest obstacle to your success. I will work with you one-on-one to evaluate your assignments and to help you privately with any questions or problems. My goal is your success.

Ecampus

Familiarize yourself with the eCampus on-line course system by looking at the Student Manual. A lot of useful information can be found regarding site use and navigation. To find the Student Manual: Click on Tools

Look for icons to appear in your browser window

Click on User Manual

Evaluation Procedures

Print the course schedule and place it by your computer so that you can easily determine when your assignments are due. The course schedule is designed to help you pace yourself and remain on task so that you do not fall behind.

As you can see from the grading system, your grade will come from a variety of activities, not just exams.

Quiz 0 is worth up to 10 Bonus points

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Labs (11)</td>
<td>50</td>
<td>550</td>
</tr>
<tr>
<td>Chapter Quizzes (11)</td>
<td>20</td>
<td>210</td>
</tr>
<tr>
<td>Discussion Boards (4)</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Mid-Term/Final</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1000</strong></td>
</tr>
</tbody>
</table>

Grading Scale  Grade:  (A) = 900 - 1000  (B) = 800 - 899  (C) = 700 - 799  (D) = 600 - 699  (F) = 599 or below

Lab assignments will be deducted 1 point for each day late. Exams close the last day of class and not counted late.
Exams and Assignments

The final grade for the course reflects evaluation of the student’s work on the following assignments that are calculated as follows:

**Programming Labs:** The Assignments section of your course contains the Lab assignments from your book.

**Chapter Quizzes:** For each chapter you will be assigned 20 short exercises to solve like: debug, write small part of the program, write an algorithm, etc.

**Discussion Boards** There will be four discussion boards discussing current Software Engineering topics.

**Exams:** Exams will be administered on-line during the week indicated in the Course Schedule. The questions on the exam will be derived from the Quizzes and Lab Assignments. There is a 1 hour and 20 minute time limit on the exams. There are 2 exams.

Service Learning

The College offers a Service Learning Program that allows students to earn recognition for hours worked in a volunteer program with a local organization. See the Cedar Valley College web site for additional information. 

[http://www.cedarvalleycollege.edu/CommunityMembers/Lists/WebPages/DispForm2.aspx?List=4910a51c%2D65b2%2D4293%2D9ecd%2D5f5aa383b44d&ID=17](http://www.cedarvalleycollege.edu/CommunityMembers/Lists/WebPages/DispForm2.aspx?List=4910a51c%2D65b2%2D4293%2D9ecd%2D5f5aa383b44d&ID=17)

Stop Before you Drop

Under a Texas law (TEC Section 51.907), if you drop too many classes without having an acceptable reason, **your GPA could be affected**. Be sure you understand how this law may affect you before you drop a class.

The law applies to students who enroll in a Texas public institution of higher education (including the colleges of DCCCD) for the first time in fall 2007 or later. Under this law, you may not drop more than six classes without an acceptable reason during your entire undergraduate career without penalty. For more information, please see our [catalog](http://www.cedarvalleycollege.edu/CommunityMembers/Lists/WebPages/DispForm2.aspx?List=4910a51c%2D65b2%2D4293%2D9ecd%2D5f5aa383b44d&ID=17) or read [Facts About Dropping Classes](http://www.cedarvalleycollege.edu/CommunityMembers/Lists/WebPages/DispForm2.aspx?List=4910a51c%2D65b2%2D4293%2D9ecd%2D5f5aa383b44d&ID=17).

If you drop or withdraw before the official drop/withdrawal deadline, you will receive a grade of W (Withdraw) in each class dropped until the seventh unacceptable drop. You will earn a grade of WF for the seventh unacceptable drop, and each unacceptable drop after that. A grade of WF will be calculated in your GPA as an F.

The deadline for receiving a W is indicated on the academic calendar and the current class schedule. For more information, you may access:
The Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class *may not* be repeated for the third or subsequent time without paying the additional tuition. Third attempts include courses taken at any of the Dallas County Community Colleges since the fall 2002 semester. More information is available at:

http://www.dcccd.edu/PC/Cost/3rdCrseAttmpt/Pages/default.aspx

**Attendance Policy**

For the online course, there is no set day and time to meet. You may work on this course from any computer that meets the hardware requirements and at any time convenient to you; however, you should make sure you follow the Course Schedule so as not to lose points on assignments due to late submissions. In addition, you should login to your course daily to check for new announcements. Changes, deadlines, and other important information will be posted on this page as necessary, and being unaware of the available information will not be accepted as an excuse for failing to comply with it.

**Tutoring Services**

For tutoring contact Maryam Johnson 972-860-8076 to setup an appointment. Make sure to tell Mrs. Johnson that you are a programming student. The programming tutor is only available on certain days and times set at the beginning of the semester. I will also be available to meet with you.

**QUALITY ENHANCEMENT PLAN**

Cedar Valley College's Quality Enhancement Plan is designed to improve student learning in mathematics. Read more about our QEP at:

http://www.cedarvalleycollege.edu/QEP/default.aspx
INSTITUTIONAL POLICIES

Academic Advising

Academic Advising is a collaborative educational process whereby students and their advisors are partners in meeting the students' academic, personal, and career goals. This partnership is a process that is built over the student’s entire educational career at Cedar Valley College.

Educational planning is available to all students. First time in college students must meet with academic advisors prior to enrolling in classes; however, continuing students may choose to see faculty advisors, faculty counselors, and/or program coordinators after classes begin. All parties have clear responsibilities for ensuring a successful partnership. For more information, you may access:

[link to website]

Academic Honesty

Academic honesty is expected, and integrity is valued in the Dallas County Community Colleges. Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion. See Also Student Code of Conduct.

[link to website]

ADA Statement

If you are a student with a disability and/or special needs who requires accommodations, please contact the college Disability Services Office at 972-860-8119.

Emergency Alert

Sign up for DCCCD Emergency Alerts to receive a text-message, e-mail and/or phone call when there is an unscheduled evacuation or closure of a DCCCD campus or office because of weather closures, utility outages, police or other emergencies. Subscribing is free, but standard text message charges from your cell phone provider will apply. Please refer to:

[link to website]

Financial Aid

Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.
Health Center Services

- Basic first aid for minor cuts, scrapes, insect stings, and heat, etc.
- Over-the-counter medications for headaches, fever, seasonal allergies, and colds
- Over-the-counter medications for mild allergic reactions
- Emergency sanitary pads
- Blood Pressure check
- Coordination with outside health agencies such as Carter Blood Care; Dallas County Health Dept. (HIV/STD testing--free, twice a semester); UT Southwestern mobile mammography; Immunizations once a month for children <19 y.o. from the DCDHHS; Agape Massage; and Employee Wellness Screening
- Rest area for stress relief, migraine headaches, post seizure activity
- AED (Automatic External Defibrillator) for CPR
- Confidential "talks"
- Assists with health related club activities when asked and time permits

Religious Holidays

Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.