

## **COSC 1436 – Programming Fundamentals I**

### **Semester – Fall 2012**

CRN: 21752 – Online Section (Distance Education)

CRN: 20624 – Meeting: Tuesday & Thursday, 8am-10am, Room 212, JDB

CRN: 20982 – Meeting: Tuesday & Thursday, 11am-1pm, Room 212, JDB

Plus All CRNs: Delivered via the Internet – 24/7 at your convenience

Using Eagle Online (Moodle) at: <https://hccs1.mrooms3.net/login/index.php>

Professor: Kenneth Leroy Busbee

Eagle On-line: Most instructor interaction will be via email messages inside of Eagle Online. If you are having problems with Eagle Online, you can use my regular HCCS email outside of Eagle Online.

Regular E-mail: [ken.busbee@hccs.edu](mailto:ken.busbee@hccs.edu)

Phone: 713-718-2358 (Leave a Short Voice Message)

**I normally respond to email messages much quicker than to voice mail messages**, but feel free to leave either an email or voice message.

Dept Faculty Page: [http://eagle.hccs.edu/faculty/busbee\\_k/](http://eagle.hccs.edu/faculty/busbee_k/)

Learning Web Page: <http://learning.hccs.edu/faculty/ken.busbee>

Office Hours: Tuesday & Thursday, 10am-11am, Room 212, JDB  
Plus, other times by appointment as needed

**Class Platform:** This is a Web Enhanced class and is offered with 4 hours of the course per week in the classroom and 2 hours of the course per week delivered electronically via the Internet using the Eagle Online (Moodle) learning management system (LMS). Some of the items that would normally occur in a physical classroom will be conducted within Eagle Online, such as: announcements, discussion list postings, efforts of students working in teams, quizzes, submission of assignments, electronically prepared lecture material or notes, etc. Students will need to use computer resources (college library, college computer labs, public library, personal home computer, etc.) outside of the 4 hours of actual attendance to accomplish these items. Chat with the instructor if you have any questions.

**Textbook:** This course will be using Internet materials that are designed as an “Open Course Ware” textbook that is free of charge to the students. These materials are developed as a collection of modules on the Connexions Project hosted by Rice University. The name of the collection is: Programming Fundamentals – A Modular Structured Approach using C++ and it’s direct link is: <http://cnx.org/content/col10621/latest/> **These on-line materials will be sufficient for most students.** The collection/textbook was used by students during the Spring 09 term and

has been improved over the last few years. Students may review the materials at the Connexions web site at any time and they are available for printing at a reasonable price.

***However, if you are going to print materials they should not be printed until after the start of the course because the author may be doing some last minute updating materials.***

The official textbook for the course is the first one in the list below. You **do not** need to purchase it for this course; **however some students may want to use a traditional textbook to supplement the Connexions course materials.** We will not be using any CDs that come with the official textbook; therefore you may buy a new or used textbook. We provide a reading reference sheet for the current and several previous textbooks used in this course at HCC. You may use any one of these books:

1. Starting Out with C++ Early Objects, by: Tony Gaddis et. al., 7<sup>th</sup> Edition, ISBN-13: 978-0136077749
2. Starting Out with C++ Early Objects, by: Tony Gaddis et. al., 7<sup>th</sup> Edition, International Edition, ISBN: 978-0-13-137714-1
3. Starting Out with C++ Early Objects, by: Tony Gaddis et. al., 6<sup>th</sup> Edition, ISBN: 0-321-51238-3
4. Starting Out with C++ Early Objects, by: Tony Gaddis et. al., 5<sup>th</sup> Edition, ISBN: 0-321-38348-6
5. Computer Science – A structured Approach using C++, by: Behrouz A. Forouzan et. al., 2<sup>nd</sup> Edition, ISBN: 0-534-37480-8

**Flash Drive:** You will need a 128MB or larger flash drive by the second day of class. [NOTE: Today you cannot buy anything new that is smaller than 1GB.] We will use this flash drive to install the Bloodshed Dev-C++ 5 compiler/IDE and to store your source code files. Additional information is within the Connexions materials within Chapter 1. **This flash drive should be use exclusively for this course.**

**Related Materials:** This course requires the use of **C++ compiler software** (We have three to pick from: one compiler is bundled with your text book, one is available free via the internet and we provide a free compiler within the course materials. More details are provided with the course materials.) and word processing or specifically **text processing software** (students usually use Word 2010, Word Pad or Note Pad; all by Microsoft).

**Eagle Online (Moodle) Delivery of Instruction:** All sections of the course taught by this instructor employ computerized internet delivery of course materials by using Eagle Online (educational delivery software). You will complete quizzes, submit lab assignments and do normal emailing within Eagle Online.

**Student Attendance/Participation is Mandatory:** Students attending on-campus should be regularly attending class. For those taking the course as a Distance Education section of this topic, you must make satisfactory progress in this course. Students may be withdrawn if they miss more than 12.5% of the course instruction. Note that this includes students on scholarship, veteran's benefits, international visas, etc. Once a student is withdrawn for excessive absences/non participation, rarely are they re-admitted to the course.

For both on-campus and distance education students; if you decide to quit participating in the course **before** the Last Day for Administrative/Student Withdraws, you should make sure that you withdraw from the course in order to receive a “W” grade. If you quit participating in the course **after** the Last Day for Administrative/Student Withdraws, you will receive the grade of “F”. This will apply to all students. Incomplete grades are rarely given.

Thus, all students need to be in regular contact with your instructor during the semester. For the Distance Education students, most of this contact will be electronically within the Eagle Online environment. Two exams will be given during the semester (Exam 1 and the Final Exam) that will require the Distance Education students to come on-campus to a Distance Education testing site (with more information to be announced as test days approach).

**Instructor Participation:** I will normally enter the course via Eagle Online every business day (Monday through Friday unless it’s a holiday), however for a variety of reasons I may not enter the course on a given day. Often I will enter the course more than once on a business day. I will usually enter the course on Saturday morning, but not always. Sometimes, I will enter the course on Sunday. Thus, it might appear that you have 24/7 instructor response and you could **wrongfully expect immediate response to all your needs.** I will try to respond quickly and you should normally have a response **within 3 business days,** so don’t panic if you don’t get a response in 30 minutes.

I will read all Eagle Online “eMail” every time I enter the course and normally will respond that same day. Once in a while a student’s question requires a couple of days for me to research his question to allow me to formulate a good (correct) response.

**Evaluation and Final Grade:** During the course, your progress (quiz, lab and exams scores) will be reported to you via the “Gradebook” feature within Eagle Online. You should check this regularly to confirm your progress in the course is current. Once the Final Exam is graded, it’s score along with your final grade average will be available.

**Examinations & Final Grade Determination:**

- 10% Quizzes (within the chapters)
- 10% Super-Quizzes (associated with a group of chapters)
- 30% Lab Assignments
- 15% Exam 1 (taken on-campus)
- 35% Final Exam (taken on-campus)

Based on the weights above a final percent will be calculated with grades awarded as follows:

- A - 90% to 100%
- B - 80% to 89.99%
- C - 70% to 79.99%
- D - 60% to 69.99%
- F - 0% to 59.99%

One special note: **Failing the final with an exam score of less than 50% will cause you to fail the course regardless of what your grades have been on the assignments, quizzes and other exams.**

If you do not score at least 50% on the final, I assume you have not truly learned the materials in the course, thus you will fail the class.

**Course Organization:** The Connexions course materials (an electronically delivered textbook available at: <http://cnx.org/content/col10621/latest/>) have been divided into five groups:

- Foundation Topics (consisting of chapters 1 to 5)
- Modular Programming (consists of chapters 6 to 9)
- Structured Programming (consisting of chapters 10 to 16)
- Intermediate Topics (consisting of chapters 17 to 21)
- Advanced Topics (consisting of chapters 22 to 24)

Memory building activities, lab assignments and quizzes (including the super-quiz) for the Foundations Topic Learning Group should be completed before the student takes the on-campus exam (**Exam 1**) for that learning group. Memory building activities may be taken as many times as a student desires.

Each **lab assignment** (one assignment per chapter) has its own due date and will not be accepted for grading after that date (you get a zero).

The **quizzes** for a given chapter have the same due date as the lab assignment for that chapter. You may take each quiz up to three times and we count your best score. We suggest that you take the quizzes as you complete a chapter. The quizzes are all self-grading and thus the student has immediate feedback. However, a few students insist on waiting until the last available date to take the quizzes for a chapter and then will try to take the quizzes 3 times in a row. Beware! This insidious practice has been stopped! I have set a parameter on all of the quizzes that requires a 1 day (24 hour) wait before the student can take another attempt.

The **super-quizzes** are cumulative quizzes and are taken from the same pool of questions as the regular quizzes. However, they place emphasis on the most recently completed group. They are taken only once (no best of 3 chances). They are timed quizzes. They are to be taken within the time frame allotted.

**Academic or Scholastic Dishonesty:** I do not tolerate it. See the module within the appendix of the Connexions textbook. First offense – students will be given the grade of “F” in the course and referred to the Dean of Instruction for further disciplinary action.

**Schedule:** The tentative schedule is outlined below. Any changes will be announced within the course. NOTE: **All lab and quiz assignments are usually due 9 days after the material for a chapter is covered in class**, however *normally students should complete the lab assignment within a couple days of the date the chapter is covered*. You are in charge of your life and you should plan on completing materials and submitting them before the due dates.

Wk	Pr	Date	Description	Available	Due
1	1	Aug 28 <sup>th</sup>	Orientation – Course Introduction	N/A	N/A
1	2	Aug 30 <sup>th</sup>	Ch 1 – Introduction to Programming	Aug 28 <sup>th</sup>	Sep 8 <sup>th</sup>
2	3	Sep 4 <sup>th</sup>	Ch 2 – Program Planning & Design	Aug 28 <sup>th</sup>	Sep 13 <sup>th</sup>
2	4	Sep 6 <sup>th</sup>	Ch 3 – Data & Operators	Aug 28 <sup>th</sup>	Sep 15 <sup>th</sup>
3	5	Sep 11 <sup>th</sup>	To Be Announced	N/A	N/A
3	6	Sep 13 <sup>th</sup>	Ch 4 – Often Used Data Types	Aug 28 <sup>th</sup>	Sep 22 <sup>nd</sup>
4	7	Sep 18 <sup>th</sup>	Ch 5 – Integrated Development Environment	Aug 28 <sup>th</sup>	Sep 27 <sup>th</sup>
		On-Line	Super-Quiz 1	Sep 13 <sup>th</sup>	Sep 27 <sup>th</sup>
4	8	Sep 20 <sup>th</sup>	Review for Exam 1	N/A	N/A
5	9	Sep 21 <sup>st</sup> to 23 <sup>rd</sup>	Exam 1 – For Distance Education Students at a DE Testing Site (Additional info provided in course.)	N/A	N/A
5	9	Sep 25 <sup>th</sup>	Exam 1 – On Campus Students	N/A	N/A
5	10	Sep 27 <sup>th</sup>	Ch 6 – Program Control Functions	Sep 23 <sup>th</sup>	Oct 6 <sup>th</sup>
6	11	Oct 2 <sup>nd</sup>	Ch 7 – Specific Task Functions	Sep 23 <sup>th</sup>	Oct 11 <sup>th</sup>
6	12	Oct 4 <sup>th</sup>	Ch 8 – Standard Libraries	Sep 23 <sup>th</sup>	Oct 13 <sup>th</sup>
7	13	Oct 9 <sup>st</sup>	Ch 9 – Character Data, Sizeof, Typedef, Sequence	Sep 23 <sup>th</sup>	Oct 18 <sup>th</sup>
		On-Line	Super-Quiz 2	Oct 9 <sup>th</sup>	Oct 18 <sup>th</sup>
7	14	Oct 11 <sup>th</sup>	Ch 10 – Introduction to Structured Programming	Oct 9 <sup>th</sup>	Oct 20 <sup>th</sup>
8	15	Oct 16 <sup>th</sup>	Ch 11 – Two Way Selection	Oct 9 <sup>th</sup>	Oct 25 <sup>th</sup>
8	16	Oct 18 <sup>th</sup>	Ch 12 – Multiway Selection	Oct 9 <sup>th</sup>	Oct 27 <sup>th</sup>
9	17	Oct 23 <sup>rd</sup>	Ch 13 – Test After Loops	Oct 9 <sup>th</sup>	Nov 1 <sup>st</sup>
9	18	Oct 25 <sup>th</sup>	Ch 14 – Test Before Loops	Oct 9 <sup>th</sup>	Nov 3 <sup>rd</sup>
10	19	Oct 30 <sup>th</sup>	Ch 15 – Counting Loops	Oct 9 <sup>th</sup>	Nov 8 <sup>th</sup>
10	20	Nov 1 <sup>st</sup>	Ch 16 – String Class, Unary Positive and Negative	Oct 9 <sup>th</sup>	Nov 10 <sup>th</sup>
		On-Line	Super-Quiz 3	Nov 1 <sup>st</sup>	Nov 10 <sup>th</sup>
		Nov 2 <sup>nd</sup>	4:30pm – Last day for Student Withdrawal	N/A	N/A
11	21	Nov 6 <sup>th</sup>	Ch 17 – Conditional Operator and Recursion	Nov 4 <sup>th</sup>	Nov 15 <sup>th</sup>
11	22	Nov 8 <sup>th</sup>	Ch 18 – Introduction to Arrays	Nov 4 <sup>th</sup>	Nov 17 <sup>th</sup>
12	23	Nov 13 <sup>th</sup>	Ch 19 – File I/O and Array Functions	Nov 4 <sup>th</sup>	Nov 26 <sup>th</sup>
12	24	Nov 15 <sup>th</sup>	Ch 20 – More Array Functions	Nov 4 <sup>th</sup>	Nov 26 <sup>th</sup>
13	25	Nov 20 <sup>th</sup>	Ch 21 – More on Typedef	Nov 4 <sup>th</sup>	Dec 1 <sup>st</sup>
		On-Line	Super-Quiz 4	Nov 20 <sup>th</sup>	Dec 1 <sup>st</sup>
13		Nov 22 <sup>nd</sup>	Thanksgiving Holiday (Nov 22 <sup>nd</sup> to 25 <sup>th</sup> ) No Class	N/A	N/A
14	26	Nov 27 <sup>th</sup>	Ch 22 – Pointers	Nov 20 <sup>th</sup>	Dec 6 <sup>th</sup>
14	27	Nov 29 <sup>th</sup>	Ch 23 – More Arrays & Compiler Directives	Nov 20 <sup>th</sup>	<b>Dec 6<sup>th</sup></b>
15	28	Dec 4 <sup>th</sup>	Ch 24 – OOP & HPC	Nov 20 <sup>th</sup>	<b>Dec 6<sup>th</sup></b>
15	29	Dec 6 <sup>th</sup>	Review for Final – <b><i>Last day for quizzes or labs.</i></b>	N/A	N/A
16	30	Dec 7 <sup>th</sup> to 9 <sup>th</sup>	Final Exam – For Distance Education Students at a DE Testing Site (Addl info provided in course.)	N/A	N/A
16	30	Dec 11 <sup>th</sup>	Final Exam – CRN: 20982 – Tuesday, 11am	N/A	N/A
16	30	Dec 13 <sup>th</sup>	Final Exam – CRN: 20624 – Thursday, 8am	N/A	N/A