

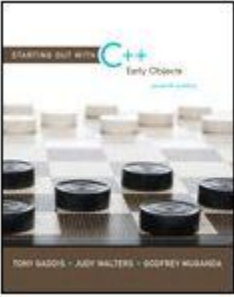


Computer Science Technology Department
Houston Community College
Southwest College
Department Phone Number: 713-718-6776

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COSC 1436 Programming Fundamental I (C++) Course Syllabus

Instructor	Name: Suma Rao Office: 5601 West Loop South, Houston, TX 77081 Tel: 713.718.2066 <i>(P.S: I respond to email much quicker)</i> Email: suma.rao@hccs.edu Website: http://learning.hccs.edu/faculty/Suma.Rao tc3.hccs.edu/raos <i>(P.S: Complete DE orientation at distance.hccs.edu prior to accessing this course through EagleOnline)</i> <i>NOTE: This course will use the Eagle Online website.</i> You must have the Firefox browser for use with the Eagle Online (EO) website. You must have the Adobe Reader installed. You must have the VisualStudio installed. You must have your browser set to allow POPUPS from our website! (More info listed below).		
Course Reference Number (CRN)	82227	Course Level	Beginning
Course Description	Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy.		
Course Prerequisite(s)	Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher.		
Course Semester Credit Hours (SCH) (Lecture, Lab)	4 (3 Lecture, 3 Lab.)		
Course Location/Times	DE/Online 24/7 <i>(P.S: Complete DE orientation at http://distance.hccs.edu prior to accessing this course through EagleOnline)</i>	Total Course Contact Hours	96
Instructional	Course is taught in C++. Textbook information will be provided by individual instructor		

Materials (Textbook)	<ul style="list-style-type: none"> For C++: Starting out with C++ Early Objects 7th Edition (formerly "Alternate Version"). Authors: Gaddis, Walters & Muganda. ISBN: 10:0136077749, 13:9780136077749. Publisher: Addison-Wesley. 		
Instructional Methods (select one)	Distance (100%)	Type of Instruction (Lecture, Lecture/Lab, COOP, Practicum)	Lecture/Lab,
Course Length (number of weeks)	16 Weeks		

Course Requirement, Policy, and Course Calendar

Instructor's Requirements	<ol style="list-style-type: none">1. TEXTBOOK – You must purchase the textbook from an HCC bookstore, as the book comes in a bundle with other required information. More information is covered within the second topic of the course in EagleOnline. In addition, you must obtain the books during the second week of course, at the latest, by the end of the 3rd week or you will fall very behind.2. Adequate Windows PC hardware including a 1 GHz or faster CPU, 1GB or more of RAM, graphics card with 128 MB of memory, 4 GB of disk storage space and handle multimedia items (sound and maybe a microphone [suggested but not required this semester]).3. Windows PC4. Windows Operating System: Windows XP – SP2, Window Vista, or Windows 75. High speed Internet access (DSL or cable - dial up will NOT work)6. Text Editing software like NotePad, WordPad, or MS Word7. Web Browser: Firefox for accessing Eagle Online Course Work (free online @ http://www.mozilla.org/en-US/firefox/fx/)8. REAL PLAYER software (free online @ http://www.real.com/)9. Adobe Reader software (free online at http://www.adobe.com)10. Visual Studio IDE (FREE online @ http://www.microsoft.com/visualstudio/en-us/try)11. You must be self-motivated in order to be responsible for completing work on time, and without constant reminders. This class moves at a fast pace and staying ahead of schedule is the key to remaining on track.12. You must have access to the necessary computer resources stated above. Please note, the network or computer going down the night before an assignment is due is NOT a valid excuse. Assignments have ample lead time before the Official Due Dates to allow for these types of situations. Start work early and upload your work early and you should not have a problem. If you have internet or computer problems you must be willing to use other resources, such as the HCC open labs.13. STUDENT ATTENDANCE/PARTICIPATION IS MANDATORY: As a DE section of this topic, you must make satisfactory progress in this course. Students may be withdrawn if the student misses turning in assignments that total to more than 89 points (which is more than 12.5% of the course work prior to the Final Exam). Contact the instructor if you are having a problem (our course is on a 1000 point scale). If you decide to quit participating in the course <u>before</u> the Last Day for Administrative/Student Withdrawals, you may withdraw yourself, or ask instructor to withdraw you. After the withdrawal date deadline, the instructor is not able to withdraw you. If you quit participating in the course <u>after</u> the Last Day for Administrative/Student Withdrawals, you will receive an F. This will apply to all students. Incomplete grades are rarely given.14. PROFESSOR PARTICIPATION: I will normally respond to student requests between 1-3 days. Instructors are usually allowed up to two weeks to grade assignments, however, I will try to grade lab assignments within 7 days after the due date. All quizzes are self graded and students can see their results immediately. I will read all EagleOnline “eMail” every time I enter the course and normally will respond that same day. Thus, as your Professor, I expect to have regular contact with you during the semester. Most of this contact will be electronically within EagleOnline environment. Most interaction will be via the eMail, and Forum tools within Eagle Online.15. ACAMEDIC DISHONESTY/STUDENT HANDBOOK: Please refer to student hand book regarding cheating. Students may ask questions to other students, to myself, or to anyone else. This is how we learn and I encourage it. HOWEVER, all work must be started and completed in its entirety on your own. If it is found that students are sharing the same files, and then making minor changes to upload
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	<p>the work as their own, students will receive a 0 on the assignment and may possibly be removed from the class.</p> <p>The Distance Education Student Handbook contains policies and procedures unique to the DE student. Students should have reviewed the handbook as part of the mandatory orientation. It is the student's responsibility to be familiar with the handbook's contents. The handbook contains valuable information, answers, and resources, such as DE contacts, policies and procedures (how to drop, attendance requirements, etc.), student services (ADA, financial aid, degree planning, etc.), course information, testing procedures, technical support, and academic calendars. Refer to the DE Student Handbook by visiting this link: http://de.hccs.edu/de/de-student-handbook.</p> <p>16. DE FINAL EXAM: It will be similar to your EagleOnline Lab assignments. It is CLOSED-BOOK and ON-CAMPUS. More about final exam is described in topic 14 within EagleOnline. Your final exam will be on Fri-May04 and Sat-May05 (You can choose one) @ the West Loop campus.</p> <p>17. EGLS3 -- Evaluation for Greater Learning Student Survey System At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.</p> <p>18. MENINGITIS IMMUNIZATION REQUIRED FOR SPRING REGISTRATION Texas Senate Bill 1107 passed in May 2011, requires that new HCC students and former HCC students returning after an absence of at least one fall or spring semester who are under the age of 30 are required to present a physician-signed certificate showing they have been vaccinated against bacterial meningitis. Beginning with Spring registration, November 7, students will have to satisfy this requirement prior to enrollment. For more information and a list of exemptions please go to http://www.hccs.edu/hccs/admissions-registration-center/new-student-general-admissions-steps/submit-meningitis-documentation</p>		
<p>Eagle Online Requirements</p>	<p>EAGLE ONLINE DELIVERY OF INSTRUCTION: This course is delivered to the student using Eagle Online (educational delivery software). Basically, the Eagle Online website is where you will go to enter our virtual classroom! The Distance Education site has links to get you access to the correct Eagle Online course area.</p> <p>Eagle Online USER ID: Your Eagle Online login user ID will be your HCC User ID (sometimes referred to as the "W" number). All HCC students have a unique User ID. If you do not know your User ID you can look it up by visiting the HCC home page. Please note, this is the same user id you may have used for Blackboard, but it will NOT be the same password. If you have never logged into Eagle Online (or Moodle) at HCC before, the password will be "distance":</p> <ul style="list-style-type: none"> • To log into Eagle Online, go to http://distance.hccs.edu and click on the <u>Course/Go To Class</u> link. MAKE SURE AND COMPLETE THE ORIENTATION FIRST! • You may click here for extra login help. <p>Eagle Online TECHNICAL HELP: Go to http://distance.hccs.edu and click on the Eagle Online Help Desk link. Within our Eagle Online course there is also a blue HELPDESK button located at the top p of the course.</p> <p>POP UP? If a pop-up is blocked, you will need to set your pop-up blocker to allow pages from our <u>Eagle Online</u> site. <i>The technical requirements section of the orientation will discuss how to allow pop-ups from Eagle Online. The HELPDESK button will explain this as well, located at the top of the course. Do this before beginning our course as many of the early links in the course are pop-ups!</i></p>		
<p>Instructor Grading Criteria</p>	<table border="1" data-bbox="418 1898 945 1948"> <tr> <td data-bbox="418 1898 834 1948">Total Points (Percentage)</td> <td data-bbox="834 1898 945 1948">Grade</td> </tr> </table>	Total Points (Percentage)	Grade
Total Points (Percentage)	Grade		

900 - 1000 (90% - 100%)	A
800 - 899 (80% - 89.9%)	B
700 - 799 (70% - 79.9%)	C
600 - 699 (60% - 69.9%)	D
0 - 599 (0% - 59.9%)	F

Course Calendar

DUE DATE TIMES ARE 11:55pm on the day they are due (Every Wednesdays)!

Note: You have two different types of assignments in this course. Eagle Online Quiz (EOQuiz) which you upload through Eagle Online and is automatically graded. The other assignment is Eagle Online Lab (EOLab) that you will do on your PC using VisualStudio IDE and upload into Eagle Online for me to grade. Not all topics will have this type of assignment/quiz. Some topics will have no assignment (topic 1 ☺), some will have only EOQuiz (topics 2 & 14), some topic(s) will have only EOLab (topic 3), and most topics will have both EOLab as well as EOQuiz (topics 4 to 13). Below table shows the due dates, assignment type, and grade distribution for each topic in this course.

Note: DUE DATE is last possible date assignment can be uploaded. It is highly suggested that you upload assignments SOONER (On/before the Due Date)

Due Dates [Wed]	Learning Modules	Assignment Type & Points Distribution		
		EOQuiz (22%)	EOLab (53%)	Final (25%)
Jan 25	01GST – Getting Started	0	0	0
Feb 01	02INT – Introduction	20	10 (EO Forum)	0
Feb 08	03IDE – Integrated Development Environment(VC++/VS.Net)	0	40	0
Feb 15	04CH1 – Chapter1 (Introduction to Computer Programming)	15	40	0
Feb 22	05CH2 – Chapter2 (Introduction to C++)	15	40	0
Feb 29	06CH3 – Chapter3 (Expressions and Interactivity)	15	40	0
Mar 07	07EX1 – Chapters 1 to 3 (Eagle Online Upload)	30	80	0
Mar 21	08CH4 – Chapter4 (Making Decisions)	15	40	0
Mar 28	09CH5 – Chapter5 (Looping)	15	40	0
Apr 04	10EX2 – Chapters 5 and 6 (Eagle Online Upload)	30	80	0
Apr 18	11CH6 – Chapter6 (Functions)	15	40	0
Apr 25	12CH8 – Chapter8 (Arrays)	15	40	0
May 02	13CH9 – Chapter9 (Searching and Sorting Arrays)	15	40	0
May 02	14FEO – Final Exam Overview	20	0	0
Fri-May04, & Sat-May05	Final Exam – Chapters 6, 8, and 9 (WestLoop Campus, Rm# 154)	0	0	250
TOTAL [1000]		220	530	250

The above due dates are established so as to prevent “Procrastination” on your part. It is “strongly suggested” that students set a regular study schedule. This will allow them to complete materials on or before the “Due Date”. Students that work ahead will be able to handle unexpected situations that will occur in their life. Not working ahead might cause them to miss the due date for a topic. Assignments (EOLab) not received by the “Due Date” for a topic will be given the grade of zero. Assignments (EOLab) must be uploaded into Eagle Online by 11:55:00 PM (on OUR CLOCK) on the “Due Date”. The “Due Date” is when we highly recommend finishing the topic. We have placed all due dates on a Wednesday to help students remember upcoming deadlines.

If you are having problems completing course materials on time (by the “Due Date”), email the instructor and notify the reason

so that you will not be dropped from the course. If you have over scheduled your life (working 40 hours a week and taking 15 credit hours of college instruction), have computer problems (my computer is broke and I don't know when it will get fixed) or don't have a textbook (too poor to buy one until payday) – DON'T BE SURPRISED IF THE INSTRUCTOR SIMPLY SAYS, "You should withdraw from the course".

However, under unusual circumstances (death or illness in the family and other items that greatly disrupt your life), the instructor might be willing to accept late materials. But the time to chat with the instructor is when something is "Due".

HOLIDAYS and Important Dates:

Jan 16 (Mon): HCC Closed – MLK day

Jan 17 (Tue): Classes Begin

Feb 20 (Mon): HCC Closed – Presidents' Day

Mar 12-18 (Mon-Sun): HCC Closed – Spring Break

Mar 29 (Thurs): LAST DAY FOR WITHDRAWALS at 4:30pm

Apr 6-8 (Fri-Mon): HCC Closed – Spring Holiday

May 4-5 (Fri, Sat): Distance Ed FINAL EXAMS

May 7-13 (Mon-Sun): Classroom FINAL EXAMS

Learning Objective, Students Learning Outcome, and Program Spec

Note: This section of the syllabus provides the general course learning objectives, the expected students learning outcome, the course scope in terms of the department program, and the instrument used to evaluate the course. If you have any question, contact the instructor or the department for answers.

HCC Grading Scale	<table border="1" data-bbox="521 489 1435 827"> <thead> <tr> <th>Grade</th> <th>GPA Points</th> </tr> </thead> <tbody> <tr> <td>A = 100- 90</td> <td>4 points per semester hour</td> </tr> <tr> <td>B = 89 - 80:</td> <td>3 points per semester hour</td> </tr> <tr> <td>C = 79 - 70:</td> <td>2 points per semester hour</td> </tr> <tr> <td>D = 69 - 60:</td> <td>1 points per semester hour</td> </tr> <tr> <td>59 and below = F</td> <td>0 points per semester hour</td> </tr> <tr> <td>IP (In Progress)</td> <td>0 points per semester hour</td> </tr> <tr> <td>W(Withdrawn)</td> <td>0 points per semester hour</td> </tr> <tr> <td>I (Incomplete)</td> <td>0 points per semester hour</td> </tr> <tr> <td>AUD (Audit)</td> <td>0 points per semester hour</td> </tr> </tbody> </table> <p>IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses. To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.</p>	Grade	GPA Points	A = 100- 90	4 points per semester hour	B = 89 - 80:	3 points per semester hour	C = 79 - 70:	2 points per semester hour	D = 69 - 60:	1 points per semester hour	59 and below = F	0 points per semester hour	IP (In Progress)	0 points per semester hour	W(Withdrawn)	0 points per semester hour	I (Incomplete)	0 points per semester hour	AUD (Audit)	0 points per semester hour
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Course Student Learning Outcomes (SLO):	<ol style="list-style-type: none"> 1. Explain the purpose of computer programming language 2. Identify and explain programming development lifecycle including planning, analysis, design, development, and maintenance. 3. Analyze problems. 4. Design algorithms using pseudo code, flowcharts, and structured charts Explain and use programming language elements including syntax, data types, conditional statement, control structures, procedures, arrays, classes, and objects. Create a program based on specification. 5. Use Integrated Development Environment (IDE) for the editing, building, debugging, and testing of programs. 6. Apply proper documentation and formatting of source code. 																				
Learning Objectives	<ol style="list-style-type: none"> 1. Develop programs using fundamental concepts of structured programming. 2. Use software development methodology in program problem solving. 3. Code programs using data types, control structures, functions and arrays. 4. Demonstrate the ability to run, test, and debug programs. 																				
Student Assignments	Refer to the Course Calendar																				
Student Assessment(s)	<ol style="list-style-type: none"> 1. Explain the purpose of computer programming language. Assessment criteria under development 2. Identify and explain programming development lifecycle including planning, analysis, design, development, and maintenance. Assessment criteria under development 3. Analyze problems. Assessment criteria under development 4. Design algorithms using pseudo code, flowcharts, and structured charts Explain and use programming language elements including syntax, data types, conditional 																				

	<p>statement, control structures, procedures, arrays, classes, and objects. Create a program based on specification. Assessment criteria under development</p> <p>5. Use Integrated Development Environment (IDE) for the editing, building, debugging, and testing of programs. Assessment criteria under development</p> <p>6. Apply proper documentation and formatting of source code. Assessment criteria under development</p>
Program/Discipline Requirements	Instructors will use syllabus that will satisfy CurricuUNET requirements and improve on-going assessment of student-centered learning and teaching.
Academic Discipline/CTE Program Learning Outcomes	<ol style="list-style-type: none"> 1. Identify the fundamental principles of programming, including those of algorithm analysis, software design, operating systems, and database 2. Design and write computer programs that are correct, simple, clear, efficient, well organized, and well documented 3. Know and be able to apply important data structures and algorithms 4. Understand the hardware and software aspects of computer systems that support application software development 5. Develop software engineering proficiency
SCANS and/or Core Curriculum	<p>Secretary’s Commission on Achieving Necessary Skills (SCANS)</p> <ol style="list-style-type: none"> 1. C1: Allocates Time Students will learn to allocate time to perform each task (online course will emphasize this task more). 2. C5: Acquires and Evaluates Information Student will be able to identify need for data, obtain it from existing sources or create them, and evaluate information. 3. C6: Organizes and Maintains Information Students will learn to organize their assignments and manage to complete them with specific deadline. 4. C18: Selects Technology Students will use flowcharts to understand the subject. Students will select appropriate compiler to run program. 5. C20: Maintains and Troubleshoots Technology Student will be able to prevent, identify or solve problems in machines, computers, and other technologies. 6. F9: Problem Solving Students will learn problem-solving methodology (pseudo code). 7. F10: Seeing Things in the Mind’s Eye Student will be able to organize and process symbols, pictures, graphs, objects or other information. <p>Every semester, calendar based weekly learning material (reading, hands exercises for in-class, web enhanced, or online assignments, and scheduled quiz/test/exam) will be posted as part of the syllabus.</p>
HCC Policy Statement	
Access Student Services Policies on their Web site	http://hccs.edu/student-rights

Distance Education and/or Continuing Education Policies	
Access DE Policies on their Web site	<p>DE STUDENT SERVICES</p> <p>The Distance Education Student Handbook contains policies and procedures unique to the DE student. It is the student's responsibility to be familiar with the handbook's contents and part of the mandatory orientation. The handbook contains valuable information, answers, and resources, such as DE contacts, policies and procedures (how to drop, attendance requirements, etc.), student services (ADA, financial aid, degree planning, etc.), course information, testing procedures, technical support, and academic calendars. Refer to the DE Student Handbook by visiting this link: http://de.hccs.edu/de/de-student-handbook</p>
Access CE Policies on their Web site for non-credit classes	<p>http://hccs.edu/CE-student-guidelines</p>
Competencies: If applicable	