



**Computer Science Technology Department**  
**Houston Community College**  
**Southwest College**  
**Department Phone Number: 713-718-7808**

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## COSC 1436 Programming Fundamental I (Java)

### Course Syllabus

### Spring 2015

<b>Instructor</b>	Name: Suma Rao Office: 5601 West Loop South, Houston, TX 77081 Tel: 713.718.2066 (P.S: I respond to email much quicker) Email: <a href="mailto:suma.rao@hccs.edu">suma.rao@hccs.edu</a> Website: <a href="http://learning.hccs.edu/faculty/Suma.Rao">http://learning.hccs.edu/faculty/Suma.Rao</a>   <a href="http://tc3.hccs.edu/raos">tc3.hccs.edu/raos</a>		
	<b>NOTE:</b> <b>Firefox is the recommended browser for use with the Eagle Online 2 (EO2) website.</b> <b>You must have the Adobe Reader installed.</b> <b>You must have your browser set to allow POPUPS from our website!</b> <b>(More info listed below).</b>		
<b>Course Reference Number (CRN)</b>	46716	<b>Course Level</b>	Beginning
<b>Course Description</b>	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.		
<b>Course Prerequisite(s)</b>	Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher.		
<b>Course Semester Credit Hours (SCH) (Lecture, Lab)</b>	4 (3 Lecture, 3 Lab)		
<b>Course Location/Times</b>	DE/Online 24/7 <i>(P.S: Complete DE Manatory Orientations at <a href="http://de.hccs.edu/course-resources/">http://de.hccs.edu/course-resources/</a> prior to accessing this course through EagleOnline2)</i>	<b>Total Course Contact Hours</b>	96
<b>Instructional Materials (Textbook)</b>	Course is taught in Java. Textbook information will be provided by individual instructor <ul style="list-style-type: none"> <li>▪ For <b>Java</b>: Starting Out with Java from Control Structures through Data Structures w/codemate, second edition             <ul style="list-style-type: none"> <li>- Authors: <b>Tony Gaddis &amp; Godfrey Muganda</b></li> <li>- ISBN-13: <b>978-0-321-54586-2</b></li> </ul> </li> </ul>		

	- Publisher: <b>Addison-Wesley</b>		
<b>Instructional Methods (select one)</b>	Distance (100%)	<b>Type of Instruction (Lecture, Lecture/Lab, COOP, Practicum)</b>	Lecture/Lab,
<b>Course Length (number of weeks)</b>	16 Weeks		

## Course Requirement, Policy, and Course Calendar

<b>Instructor's Requirements</b>	<p><b>TEXTBOOK</b> – 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 first topic of the course in EO2. In addition, you must obtain the books during the first week of course, at the latest, by the end of the 2nd week or you will fall very behind.</p> <p>✓ <b>One USB Flash/Pen/Jump/USB Drive (1 GB or greater) to backup your work</b></p> <p><b>Adequate Windows PC hardware</b> 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]).</p> <p><b>Windows Operating System:</b> Windows XP – SP2, Window Vista, or Windows 7</p> <p><b>High speed Internet access</b> (DSL or cable - dial up will NOT work)</p> <p><b>Text Editing software</b> like NotePad, WordPad, or MS Word</p> <p><b>Internet Explorer version 6 or 7 or 8</b> (free online @ <a href="http://www.microsoft.com">http://www.microsoft.com</a>)</p> <p><b>REAL PLAYER software</b> (free online @ <a href="http://www.real.com/">http://www.real.com/</a>)</p> <p><b>Adobe Reader software</b> (free online at <a href="http://www.adobe.com">http://www.adobe.com</a>)</p> <p><b>NetBeans IDE (Java) software</b> (free online at <a href="http://netbeans.org/downloads/index.html">http://netbeans.org/downloads/index.html</a>) (Please Note: You must have NetBeans on an accessible computer in order to complete the lab assignments. Free download is available - more details in topic 3 of the course on EO2. Also, The final exam will be given on equipment with NetBeans, so you must be familiar with this)</p> <p><b>You must be self-motivated</b> 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.</p> <p><b>You must have access to the necessary computer resources</b> 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 submit 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.</p> <p><b>STUDENT ATTENDANCE/PARTICIPATION IS MANDATORY:</b> As a DE section of this topic, you must make satisfactory progress in this course. <i>Students may be withdrawn if the student misses turning in assignments or quizzes 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</i></p>
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	<p>participating in the course <i>after</i> the Last Day for Administrative/Student Withdrawals, you will receive an F. This will apply to all students. Incomplete grades are rarely given.</p> <p><b>PROFESSOR PARTICIPATION:</b> 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 grading and students can see their results immediately. I will read all EO2 course "Mail" 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 the EO2 course environment. Most interaction will be via the Mail, Announcements and Discussion tools and grading of lab assignments.</p> <p>NOTE - Quickmail in EO2 course will be the communication tool to compose email to to your instructor. Emails from your instructor will go to your HCC student email account. Make sure to read your HCC email account regularly since your instructor will be using this address to send emails to you. Your emails to me using this Quickmail tool will go to my HCCS email address and the system will automatically identify that the email is coming from a particular course. If you send email direct to me without using the Quickmail tool, then you must <b>put in the proper subject line</b> with the Course Requisition Number (CRN), course name, and your fullname in the format <b>[CRN-CourseName] YourLastname, YourFirstname</b>. For example you're your fullname is Charles Smith, the subject line will be <b>[46716-COSC1436Java] Smith, Charles</b>. Any emails received without this information in the subject line will just be returned unanswered.</p> <p><b>ACAMEDIC DISHONESTY/STUDENT HANDBOOK:</b> 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 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: <a href="http://de.hccs.edu/de/de-student-handbook">http://de.hccs.edu/de/de-student-handbook</a>.</p> <p><b>DE FINAL EXAM:</b> It is CLOSED-BOOK and ON-CAMPUS (<b>West Loop campus</b>). More about final exam is described in topic 12 of your course in EO2. Your final exam will be on <b>Fri-Dec05</b> and <b>Sat-Dec06</b> (You can choose one).</p> <p><b>EGLS3 -- Evaluation for Greater Learning Student Survey System</b> 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><b>MENINGITIS IMMUNIZATION REQUIRED FOR SPRING REGISTRATION</b> 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 <a href="http://www.hccs.edu/hccs/admissions-registration-center/new-student-general-admissions-steps/submit-meningitis-documentation">http://www.hccs.edu/hccs/admissions-registration-center/new-student-general-admissions-steps/submit-meningitis-documentation</a></p>
<b>EO2 Requirements</b>	<b>EAGLE ONLINE 2 DELIVERY OF INSTRUCTION:</b> This course is delivered to the student using EO2

(educational delivery software). Basically, the EO2 website is where you will go to enter our virtual classroom! The Distance Education site has links to get you access to the correct EO2 course area.

**EO2 USER ID:** Your EO2 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 EO2 (or Moodle) at HCC before, the password will be “distance”:

- To log into EO2, go to <http://distance.hccs.edu> and click on the Course/Go To Class link. MAKE SURE AND COMPLETE THE ORIENTATION FIRST!
- [You may click here for extra login help.](#)

**EO2 TECHNICAL HELP:** Go to <http://distance.hccs.edu> and click on the EO2 Help Desk link. Within our EO2 course there is also a blue HELPDESK button located at the top p of the course.

**POP UP?** If a pop-up is blocked, you will need to set your pop-up blocker to allow pages from our EO2 site. *The technical requirements section of the orientation will discuss how to allow pop-ups from EO2. 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!*

#### Instructor Grading Criteria

Total Points	Grade
>= 900	A
800 - 899	B
700 - 799	C
600 - 699	D
<= 599	F
Failed due to lack of participation	FX

#### 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. EO2 Quiz (Quiz) which you upload through EO2 and is automatically graded. The other assignment is EO2 Lab (Lab) that you will do on your PC using NetBeans IDE and upload into EO2 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 Quiz (topics 2 & 12), some topic(s) will have only Lab (topic 3), and most topics will have both Lab as well as Quiz (topics 4 to 11). 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]	Topics	Assignment Type & Points Distribution		
		Quizzes/ Forum (24%)	Lab (51%)	Final (25%)
N/A	01GST – Getting Started	0	0	0

Jan 28	02INT – Introduction	10 (Forum) 20	0	0
Feb 04	03IDE – Integrated Development Environment ( <i>NetBeans</i> )	0	50	0
Feb 11	04CH1 – Chapter1 ( <i>Introduction to Computers &amp; Java</i> )	20	50	0
Feb 18	05CH2 – Chapter2 ( <i>Java Fundamentals</i> )	20	50	0
Feb 25	06EX1 – Exam1 Online (Chapters 1 and 2)	20	70	0
Mar 11	07CH3 – Chapter3 ( <i>Decision Structures</i> )	20	50	0
Mar 25	08CH4 – Chapter4 ( <i>Loops &amp; Files</i> )	20	50	0
Apr 08	09EX2 – Exam2 Online (Chapters 3 and 4)	20	70	0
Apr 22	10CH5 – Chapter5 ( <i>Methods</i> )	20	50	0
May 06	11CH8 – Chapter8 ( <i>Arrays</i> )	20	50	0
May 06	12FEO – Final Exam Overview	20	0	0
<b>Fri-May08 &amp; Sat-May09</b>	<b>FINAL EXAM – Chapters 5 and 8 (<i>WestLoop Campus, Rm# 154</i>)</b>	<b>0</b>	<b>0</b>	<b>300</b>
<b>TOTAL [1000]</b>		<b>210</b>	<b>490</b>	<b>300</b>

[Click here For Spring 2015 Academic Calendar](#)

## 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.

<b>HCC Grading Scale</b>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Grade</th> <th style="text-align: center;">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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<b>Course Student Learning Outcomes (SLO):</b>	<ol style="list-style-type: none"> <li>1. Explain the purpose of computer programming language</li> <li>2. Identify and explain programming development lifecycle including planning, analysis, design, development, and maintenance.</li> <li>3. Analyze problems.</li> <li>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.</li> <li>5. Use Integrated Development Environment (IDE) for the editing, building, debugging,</li> </ol>																				

	<p>and testing of programs.</p> <p>6. Apply proper documentation and formatting of source code.</p>
<b>Learning Objectives</b>	<ol style="list-style-type: none"> <li>1. Develop programs using fundamental concepts of structured programming.</li> <li>2. Use software development methodology in program problem solving.</li> <li>3. Code programs using data types, control structures, functions and arrays.</li> <li>4. Demonstrate the ability to run, test, and debug programs.</li> </ol>
<b>Student Assignments</b>	Refer to the Course Calendar
<b>Student Assessment(s)</b>	<ol style="list-style-type: none"> <li>1. <b>Explain the purpose of computer programming language.</b> Assessment criteria under development</li> <li>2. <b>Identify and explain programming development lifecycle including planning, analysis, design, development, and maintenance.</b> Assessment criteria under development</li> <li>3. <b>Analyze problems.</b> Assessment criteria under development</li> <li>4. <b>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.</b> Assessment criteria under development</li> <li>5. <b>Use Integrated Development Environment (IDE) for the editing, building, debugging, and testing of programs.</b> Assessment criteria under development</li> <li>6. <b>Apply proper documentation and formatting of source code.</b> Assessment criteria under development</li> </ol>
<b>Program/Discipline Requirements</b>	Instructors will use syllabus that will satisfy CurricuNET requirements and improve on-going assessment of student-centered learning and teaching.
<b>Academic Discipline/CTE Program Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1. Identify the fundamental principles of programming, including those of algorithm analysis, software design, operating systems, and database</li> <li>2. Design and write computer programs that are correct, simple, clear, efficient, well organized, and well documented</li> <li>3. Know and be able to apply important data structures and algorithms</li> <li>4. Understand the hardware and software aspects of computer systems that support application software development</li> <li>5. Develop software engineering proficiency</li> </ol>
<b>SCANS and/or Core Curriculum</b>	<p>Secretary's Commission on Achieving Necessary Skills (SCANS)</p> <ol style="list-style-type: none"> <li>1. C1: Allocates Time Students will learn to allocate time to perform each task (online course will emphasize this task more).</li> <li>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.</li> <li>3. C6: Organizes and Maintains Information Students will learn to organize their assignments and manage to complete them with specific deadline.</li> <li>4. C18: Selects Technology Students will use flowcharts to understand the subject. Students will select appropriate compiler to run program.</li> </ol>

	<p>5. C20: Maintains and Troubleshoots Technology Student will be able to prevent, identify or solve problems in machines, computers, and other technologies.</p> <p>6. F9: Problem Solving Students will learn problem-solving methodology (pseudo code).</p> <p>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> <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>
<b>HCC Policy Statement</b>	
<b>Access Student Services Policies on their Web site</b>	<a href="http://hccs.edu/student-rights">http://hccs.edu/student-rights</a>
<b>Distance Education and/or Continuing Education Policies</b>	
<b>Access DE Policies on their Web site</b>	<a href="http://de.hccs.edu/de/de-student-handbook">http://de.hccs.edu/de/de-student-handbook</a>
<b>Access CE Policies on their Web site for non-credit classes</b>	<a href="http://hccs.edu/CE-student-guidelines">http://hccs.edu/CE-student-guidelines</a>