



# COSC 1436 – Programming Fundamentals I (Java)

Fall 2017 CRN: 38600

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**Office Hours:** By appointment as needed  
**canvas Eagle on line:** <https://eagleonline.hccs.edu>

Note: Students who don't complete the Self-Introduction assignment and the Syllabus Quiz by noon September 12, 2017 to stay in this class. See the Start Module on Canvas EagleOnline for more detail.

**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.

**Course Prerequisites:** Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher, and have had high school computer literacy or equivalent.

## **Objective:**

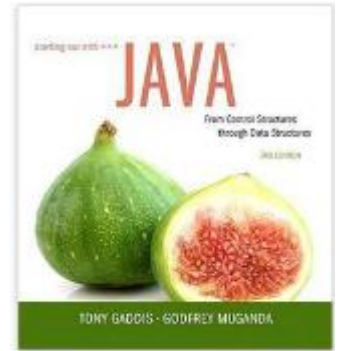
- Develop programs using fundamental concepts of structured programming.
- Use software development methodology in program problem solving.
- Code programs using data types, control structures, functions and arrays.
- Demonstrate the ability to run, test, and debug programs.

## **Students Learning Outcome (SLO):**

- 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.

**Textbook:**

“Starting Out with Java: From Control Structures through Data Structures,” 3/E with access code to MyProgramminglab, by Tony Gaddis and Godfrey Muganda, Addison-Wesley  
**ISBN:** 9780134278476.



**MyProgrammingLab:** Your textbook comes bundled with an access code to MyProgrammingLab (MPL). MPL is a Computer Assisted Learning tool for computer programming. We will use it for programming assignments. For instructions on how to register for MyProgrammingLab, go to <http://myprogramminglab.com>. When registering you need (1) an access code and (2) our section Course ID. Your access code comes with the textbook you purchased and will be different for each student. Our section Course ID is: **HOUS-30364-CZTD-34**

- **Note:** If you purchase a used textbook, make sure it has the access code to MPL. Most often used books **don't**. **If the textbook you purchase doesn't come bundled with the MPL access code, you would have to purchase the access code separately from the MPL website.**

**Other Required Material:**

- **NETBEANS IDE SOFTWARE:** Can be downloaded ( free) online at <http://netbeans.org/downloads/index.html>
- **Internet Access to HCCS Canvas EagleOnline** (<https://eagleonline.hccs.edu>)
- You need to have access to a computer with NetBeans IDE installed to be able to do the assignments and work on the labs. You also need to have internet access to be able to access course material and communicate electronically via e-mail. If you don't have a computer of your own, you should plan on using one of the computer labs available in your HCC campus.

**Optional Materials or Reference Texts:** None

**Topic Content:**

Topic	Chapter
Introduction to Computers and Java	1
Java Fundamentals	2
Decision Structures	3
Loops and Files	4
Methods	5
A First Look at Classes	6
Arrays and the Arraylist Class	7

**Class Platform:** This is a Distance Education class. Quizzes, Labs, Programming Assignment, Exams, email communication, and announcements will be conducted using **Canvas Eagle Online**. Every student who is registered for Distance Education class is granted access to the class through **Canvas Eagle Online**.

## Assignments, Examinations & Final Grade Determination:

Category	Submission	Weight
End-of-Chapter Quizzes	Canvas EagleOnLine	10 %
Labs	Canvas EagleOnLine	10 %
Programming Assignments	MyProgrammingLab.com	10%
Online Discussions	Canvas EagleOnLine	5 %
2 Tests	Canvas EagleOnLine	15 % each
Final Exam	On Campus	35 %

Based on the average score computed using the weights above, final course grades are awarded as follows:

- A – 90% to 100%
- B – 80% to 89%
- C – 70% to 79%
- D – 60% to 69%
- F – 0 to 59%

**Final Exam:** The final exam will be administered on campus. It will be closed book and close notes and comprehensive. I will post the Final Exam date, time, and location as soon as the information becomes available to me.

**Tests:** Tests will be administered online and each will cover a set of chapters. Tests will be available online for 24 hours before they are due. All exams are to be completed individually.

**End-of-Chapter Quizzes:** Quizzes are short assessments administered online and are designed to help you prepared for the major exams. There will be one quiz at the end of each chapter. Quizzes will be available online at least one week before there are due and will have two attempts at each quiz. Quizzes are to be completed individually and may not be made up for any reason.

**Lab Exercises:** Each lab will consist of a set of exercises with a step-by-step instructions on how to complete a task. They're design to give you hands-on-practice with guided instructions. There will on lab per chapter.

**Programming assignments & MyProgrammingLab:** Programming Assignments will be done and submitted on MyProgrammingLab (MLP) ([www.myprogramminglab.com](http://www.myprogramminglab.com)), unless indicated otherwise by your instructor. MLP is a Computer Assisted Learning tool (by Pearson Pub) that allows you to submit your solution to a programming problem online and at the same time checks if your solution meets the problem's specifications. If it does, your solution is accepted. If it doesn't, MLP will try to give you few hints to help you fix the error in your solution and allows you to try again. This trial and error process with the real-time feedback, will help you practice and gradually hone your programming skills. I have setup MLP so that you have unlimited number of attempts at each exercise to maximize its benefits. For most MLP exercises your solution will consist of a short piece of code consisting of one to few lines of code. Programming Challenges, on the other hand, require you to write a full program. Each Programming Assignment will consist of several exercises and one Programming Challenge. Programming Assignments are to be completed individually. No late assignments will be accepted.

Note that each Learning Module will consist of (1) reading assignment, (2) a lab, (3) an end-of-chapter quiz, (4) a programming assignment on MPL, and potentially a class discussion. You can complete all these requirements in any sequence as long as you complete each by its due date.

**Make-Up Policy:** All assignments (Prog. Assignments and labs) are to be completed and turned in by their due dates. Late assignments will NOT be accepted and there will not be makeup quizzes. Make-up exams will *only* be given in cases of documented emergencies. It is your responsibility to contact your instructor with documentation of your emergency as soon as possible and submit the proper documentation to the department. **Refer to the course calendar for all due dates.** All missed grades will be recorded as zeros.

**Technical issues:**

This course requires the use of various technologies. If you have a technical problem, you should contact technical support. You should be prepared to provide your **incident number** to your instructor for a technical issue.

Technical issues with **EagleOnline (Canvas)** should be reported to HCC Online Technical Support. They are available 24/7 and their contact information can be found at: <http://www.hccs.edu/online/technical-support/>

Technical issues with **MyProgrammingLab** should be reported to Pearson 24/7 Technical Support at: <http://247pearsoned.custhelp.com/>

If you own a computer that is not reliable (e.g. you are unable to install required software, the operating system crashes frequently, or you are having difficulties obtaining stable internet connection), you should use the computers in the HCC Open Computer Labs. These computers will have the software required for this class. Failure to complete a quiz because of technical problem on your end is not reason for a makeup.

**IMPORTANT NOTE:**

One of the important objectives of this course is to provide you the knowledge and experience with modern programming methodologies required in upper-level Computer Science courses and in the industry. That knowledge and experience can only be acquired through hands-on practice of the concepts covered in class lectures and the textbook. *You can expect programming to occupy a significant amount of your time during the semester, so plan accordingly.* Specifically, plan to spend at least 12 to 15 hours per week on this course, mostly on reading, working on lab exercises, and completing the programming assignments.

**Student Attendance/Participation is Mandatory:** Students are expected to attend class meetings on a regular basis and to participate on class online activities. Students may be withdrawn administratively if they don't meet the State mandated attendance policy. For complete information regarding Houston Community College's policies on attendance, please refer to the Student Handbook. For DE courses you're expected to login to your course online portal (Canvas EagleOnline) frequently and regular to check for announcements which include changes to assignments due dates. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences.

**Important Note:** You must complete the Self-Introduction assignment and the Syllabus quiz by noon September 12, 2017 to stay in this class. See the **Start Here** page on Canvas EagleOnline for more detail.

**Final Grade:** Your final grade will be posted within your student information system (People soft) however official grades are provided to students by the Registrar and are available shortly after the end of the

semester. There is no other official method of posting a student's final grade. Final grades will not be given over the telephone by either the professor or any HCCS employee. If you need an official transcript see the registrar and request a transcript be sent after posting of the grades for the semester.

### **HCC Policy on Course Withdrawal**

If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of **November 3, 2017 (check HCCS Academic Calendar for any updates)**. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than **SIX** total course withdrawals **throughout** their educational career in obtaining a certificate and/or a degree.

To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor *may* "alert" you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

If you plan on withdrawing from your class, you **MUST** contact an HCC counselor or your professor prior to withdrawing (dropping) the class for approval and this must be done **PRIOR** to the withdrawal deadline to receive a "W" on your transcript. **\*\*Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal deadlines. *Remember to allow a 24-hour response time when communicating via email and/or telephone with a professor and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline.*** If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

### **HCC Policy Statement--Academic Honesty**

A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the instructor has teaching, grading, and enforcement roles. You are expected to be familiar with the University's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion. For more information on HCC policy on academic honesty refer to the HCC student handbook at <http://www.hccs.edu/district/students/student-handbook/>

### **HCC Online and/or Continuing Education Policies:**

Access HCC Online Policies on their Web site:

All students are responsible for reading and understanding the HCC Online Student Handbook, which contains policies, information about conduct, and other important information. For the HCC Online Student Handbook click on the link below or go to the HCC Online page on the HCC website.

The HCC Online Student Handbook contains policies and procedures unique to the online 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 HCC Online 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 HCC Online Student Handbook by visiting this link: <http://www.hccs.edu/media/houston-community-college/distance-education/student-services/HCC-Online-Student-Handbook.pdf>  
Access CE Policies on their Web site: <http://www.hccs.edu/continuing-education/>

### **HCC Policy Statement-- Accommodations due to a qualified disability**

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to <http://www.hccs.edu/district/students/disability-services/>

### **HCC Policy Statement--Title IX**

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status-in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

*David Cross*  
*Director EEO/Compliance*  
*Office of Institutional Equity & Diversity*  
*3100 Main*  
*(713) 718-8271*  
*Houston, TX 77266-7517 or [Institutional.Equity@hccs.edu](mailto:Institutional.Equity@hccs.edu)*

### **HCC Policy Statement--Campus Carry**

At HCC the safety of our students, staff, and faculty is our first priority. As of August 1, 2017, Houston Community College is subject to the Campus Carry Law (SB11 2015). For more information, visit the HCC Campus Carry web page at <http://www.hccs.edu/district/departments/police/campus-carry/>."

### **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.

**COSC 1436 – Programming Fundamentals 1 (Java) – Fall 2017**  
**Tentative Course Schedule**  
*Last updated 09/08/2017*

*Note: This is a tentative calendar. See Canvas Calendar for updates.  
 Programming Assignments are due on MyProgrammingLab. All other assignments and test are due on EagleOnline(Canvas). Unless indicated otherwise, all deadline are 11:59 pm on due date indicated. .*

Week	Date	Course Topic	Items Due This Week	Tentative Due Date
1		HCC Not in Session due to hurricane Harvey		
2		HCC Not in Session due to hurricane Harvey		
3		Course Orientation MyProgrammingLab Registration Chapter 1: Introduction to Computers and Java LAB1		
4		Chapter 1: Introduction to Computers and Java Chapter 2: Java Fundamentals LAB1	<b>11am -1 pm Sept 19 on EOL Canvas</b> Lab 1 Prog.Assign 1 Quiz 1	Sept 18 Sept 19 Sept 19
5		Chapter 2: Java Fundamentals LAB2 <b>Online Discussion 2: Algorithm design and verification</b>	Self-Intro	Sept 26
6		Chapter 2: Java Fundamentals Lab2  Chapter 3: Decision Structures	Lab 2 Prog.Assign 2 Quiz 2 <b>Discussion 2</b>	Sept 17 Sept 30 Oct 1 Oct 2
7		Chapter 3: Decision Structures LAB3 <b>Online Discussion 3: How to choose a decision structure?</b>	Lab 3 Prog.Assign 3 Quiz 3 <b>Discussion 3</b>	Oct 11 Oct 14 Oct 15 Oct 16
8		<b>BigBlueButton Online Conference:</b> Exam 1 Review on Canvas (Date & Time will be posted on Canvas) Chapter 3: Decision Structures LAB3	<b>Exam1 (Chapter 1-3)</b>	<b>Oct 18, 2017</b>
9		Chapter 4: Loops and Files LAB 4 <b>Online Discussion 4: How to choose a loop?</b>		
10		Chapter 4: Loops and Files LAB 4	Lab 4 Prog.Assign 4 Quiz 4 <b>Discussion 4</b>	Oct 25 Oct 28 Oct 29 Oct 29

<b>11</b>	Chapter 5: Methods LAB 5 <b>Online Discussion 5: How do methods exchange information?</b>		
<b>12</b>	Chapter 5: Methods LAB 5	Lab 5 Prog.Assign 5 Quiz 5 <b>Discussion 5</b>	Nov 8 Nov 11 Nov 12 Nov 12
<b>13</b>	Chapter 6: A First Look at Classes LAB 6	Lab 6 Prog.Assign 6 Quiz 6	Nov 22 Nov 25 Nov 26
<b>14</b>	Chapter 7: Arrays and ArrayList Class LAB 7 <b>BigBlueButton Online Conference:</b> Exam 2 Review on Canvas (Date & Time will be posted on Canvas)	<b>Exam2 (Chapters 4-6)</b>	<b>Nov 29, 2017</b>
<b>15</b>	Chapter 7: Arrays and ArrayList Class LAB 7 <b>BigBlueButton Online Conference:</b> Final Exam Review on Canvas (Date & Time will be posted on Canvas)	Lab 7 Prog Assign 7 Quiz 7	Dec 6 Dec 9 Dec 10
<b>16</b>	<b>Final Exam -- (Comprehensive) 12:00 PM Dec 13, 2017</b>		