

**COSC 1436: Programming Fundamentals I (Using Swift)**

**Course Syllabus**

Spring 2018

<b>Instructor</b>	<b>Ali Berrached, Ph.D.</b>		
<b>Contact Information</b>	Office: C421 Alief-Hayes Campus Phone: (713)718-5547 e-mail <a href="mailto:ali.berrached@hccs.edu">ali.berrached@hccs.edu</a> Course URL: Canvas EagleOnline at <a href="https://eagleonline.hccs.edu/">https://eagleonline.hccs.edu/</a> <b>Note:</b> The best way to contact me is through Canvas Inbox. In case Canvas is not accessible, use HCC e-mail address <a href="mailto:ali.berrached@hccs.edu">ali.berrached@hccs.edu</a>		
<b>Office Hours</b>	T & R 12 pm -1 pm at C421Alief, W 1-2 pm at Scarcella, MW 1-2 pm online- and by appointment as needed		
<b>Course Number &amp; Title</b>	COSC 1436 Programming Fundamentals I (Swift)		
<b>Course Reference Number (CRN)</b>	57189		
<b>Class Location/Times</b>	Alief-Hays B142/West Houston Institute 167 TR 8:00 AM – 9:50 AM	<b>Total Course Contact Hours</b>	96
<b>Instructional Methods</b>	Hybrid	<b>Type of Instruction</b>	Lecture/Lab
<b>Course Length (number of weeks)</b>	16 weeks		
<b>Class Web Page</b>	This is a Web Enhanced class. Course material including class notes, quizzes, Labs, and announcements will be posted on <b>Canvas EagleOnline (EOL)</b> . Student-faculty communications are to be conducted using Canvas Inbox e-mail unless Canvas EOL becomes inaccessible. Every student who is registered for a Web Enhanced class is granted access to the class through Canvas EOL at <a href="https://hccs.instructure.com/login/ldap">https://hccs.instructure.com/login/ldap</a> . Check out the links below for information about how to use Canvas. <a href="#">Series of short videos designed to help students learn Canvas (Links to an external site.)</a> <b>Note:</b> You're responsible for checking the class web page on Canvas EOL on a regular basis.		

<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, and have had high school computer literacy or equivalent.
<b>Students Learning Outcomes (SLOs)</b>	<ol style="list-style-type: none"> <li>1. Explain the purpose of computer programming languages</li> <li>2. Identify and explain programming development lifecycle, including planning, analysis, design, implementation, and maintenance.</li> <li>3. Analyze problems and design algorithms using pseudo-code, flowcharts, and structured charts</li> <li>4. Explain and use programming language elements including syntax, data types, conditional statement, control structures, procedures, arrays, classes, and objects.</li> <li>5. Create programs based on specifications.</li> <li>6. Use Integrated Development Environment (IDE) for the editing, building, debugging, and testing of programs.</li> <li>7. Apply proper documentation and formatting of source code</li> </ol>
<b>Instructional Materials:</b>	<p>“<a href="#">Intro to App Development with Swift</a>” by Apple Education. Available (free of charge) at <a href="#">iBooks</a></p> <p>“<a href="#">Application Development with Swift</a>” by Apple Education. Available (free of charge) at <a href="#">iBooks</a></p> <p>More information on downloading the above resources will be provided in Module 1.</p>
<b>Other Required Materials</b>	<ul style="list-style-type: none"> <li>• A Mac computer running macOS. HCC has MacBooks available for HCC students currently enrolled in COSC 1436 (Swift Programming to check out and use either at home or on campus. More information will be provided about this program in the first class meeting.</li> <li>• Xcode which can be downloaded (free of charge) <a href="#">from the Mac App Store</a></li> <li>• Project files for the course: link will be provided on Canvas EagleOnline (See Module 1)</li> </ul>
<b>Recommended (Optional) Materials</b>	“ <a href="#">Swift Programming Language Guide</a> ” by Apple Education. Available (free of charge) online.

<b>Topics Covered</b>	<b>Module</b>	<b>Topic</b>	<b>Reading</b>
	1	Introduction to Computers, Computer Programming, macOS, and Xcode	
	2	Swift Basics— Introduction to Swift and Playgrounds, Constants, Variable, Data Types, and Operators.	APDev 1.1 1.2-1.3
	3	Control Flow--Conditionals	APDev 1.4
	4	Application Development in XCode	APDev 1.5-1.8
	5	Functions	APDev 2.2
	6	Arrays and Dictionaries	APDev 2.5
	7	Control Flow—Repetitions (loops)	APDev 2.6
	8	2 <sup>nd</sup> iOS App/Strings, Structures, and Inheritance	APDev 2.1, 2.3-2.4
	<i>APDev: App Development with Swift</i> <i>Lab/class activities will be provided from APDev and "Intro to App Development with Swift"</i>		

### Instructor Grading Criteria, Guidelines, and Policies

<b>Grading Criteria</b>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr style="background-color: #76b82a; color: white;"> <th>Category</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td><b>End-of-module quizzes</b></td> <td style="text-align: center;">10 %</td> </tr> <tr> <td><b>Labs/in-class activities</b></td> <td style="text-align: center;">10 %</td> </tr> <tr> <td><b>Programming assignments</b></td> <td style="text-align: center;">10%</td> </tr> <tr> <td><b>Discussions/Class participation</b></td> <td style="text-align: center;">5 %</td> </tr> <tr> <td><b>2 Tests</b></td> <td style="text-align: center;">20 % each</td> </tr> <tr> <td><b>Final Exam</b></td> <td style="text-align: center;">25 %</td> </tr> </tbody> </table>	Category	Weight	<b>End-of-module quizzes</b>	10 %	<b>Labs/in-class activities</b>	10 %	<b>Programming assignments</b>	10%	<b>Discussions/Class participation</b>	5 %	<b>2 Tests</b>	20 % each	<b>Final Exam</b>	25 %
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<p>Final course grades are determined using the average score computed with the weights above based on the HCC standard Grading scale</p>															

<b>HCC Grading Scale</b>	<p>The HCC grading scale is:</p> <p>A = 100 – 90;.....4 points per semester hour</p> <p>B = 89 – 80: .....3 points per semester hour</p> <p>C = 79 – 70: .....2 points per semester hour</p> <p>D = 69 – 60: .....1 point per semester hour</p> <p>59 and below = F.....0 points per semester hour</p> <p>IP (In Progress) .....0 points per semester hour</p> <p>W(Withdrawn).....0 points per semester hour</p>
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	<p>I (Incomplete).....0 points per semester hour                  AUD (Audit) .....0 points per semester hour</p> <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>
<p><b>Course Requirements and Expectations</b></p>	<p><b>Exams:</b> All exams (2 tests and a final exam) will be conducted in class, are closed book closed notes, and are to be completed individually unless specifically stated otherwise by your instructor.</p> <p><b>End of Module Quizzes:</b> Quizzes are short assessments administered online each covering material in one learning module. Quizzes are to be completed individually.</p> <p><b>Lab exercises/In-class activities:</b> Lab exercises will be conducted in class, in groups of two. Lab exercises are to be started in class and usually completed outside class. To make the best use of lab class time, make sure to read related material and lab/activity instructions ahead of time. All lab exercises must be demoed in class by their due dates.</p> <p><b>Programming assignments:</b> to be completed individually and independently.</p> <p><b>IMPORTANT NOTE:</b> 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 reading material. <i>Therefore, you should expect programming to occupy a significant amount of your time during the semester, so plan accordingly.</i> Specifically, plan to spend at least 6 hours per week (in addition to class time).on this course, mostly on reading, working on lab exercises, and completing programming assignments.</p>
<p><b>Make-up Policy for Exams and Assignments</b></p>	<ul style="list-style-type: none"> <li>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 except in cases of extenuating circumstances. Extenuating circumstances are <b>unexpected and unavoidable</b> situations such as hospitalization or auto accident. They don't include forgetting about the assignment, busy work schedule, etc. Extenuating circumstances will be evaluated by your instructor on case by case basis.</li> </ul>

	<ul style="list-style-type: none"> <li>• Make-up exams will be given <i>only</i> in cases of extenuating circumstances. It is your responsibility to contact your instructor with documentation of your situation as soon as possible, schedule a makeup exam, and submit the proper documentation to the department. All missed grades will be recorded as zeros</li> </ul>
<b>Grade Dispute Policy</b>	You may dispute your assigned grade/score on any assessment or assignment activity by contacting your instructor via e-mail. Your instructor may request further information and/or explanation of reasons for the dispute before taking any action. Grades must be disputed <b>no later than one week</b> from the time the grade/score is posted on Canvas EOL.
<b>Communication with Instructor</b>	<ul style="list-style-type: none"> <li>• The best way to contact me is through Canvas Inbox. In case Canvas is not accessible, use HCC e-mail address <a href="mailto:ali.berrached@hccs.edu">ali.berrached@hccs.edu</a></li> <li>• All class announcements will be posted on Canvas EagleOnline.</li> </ul>
<b>HCC Resources</b>	Link to COSC tutoring lab schedules will be posted on Canvas EagleOnline once it becomes available
<b>Technical Issues</b>	<p>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 <b><u>incident number</u></b> to your instructor for a technical issue.</p> <p>Technical issues with <b><u>EagleOnline</u></b> should be reported to HCC Online Technical Support. They are available 24/7 and their contact information can be found at: <a href="http://www.hccs.edu/online/technical-support/">http://www.hccs.edu/online/technical-support/</a></p>
<h3><b>HCC System Policies</b></h3> <p>Student Services Policies web site: <a href="http://www.hccs.edu/media/houston-community-college/distance-education/student-services/HCC-Online-Student-Handbook.pdf">http://www.hccs.edu/media/houston-community-college/distance-education/student-services/HCC-Online-Student-Handbook.pdf</a></p>	
<b>HCC Policy on Class Attendance Policy</b>	Students are expected to attend class meetings on a regular basis and to participate in class and 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. You are responsible for materials covered during your absences. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences. Attendance will be taken at the beginning of each class period.
<b>HCC Policy on Course Withdrawal</b>	If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of <b>April 3, 2018 (check HCCS Academic Calendar for any updates)</b> . Students must withdraw by the withdrawal deadline

	<p>in order to receive a “W” on a transcript. Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online Academic Calendar, any HCC Registration Office, or any HCC advisor to determine class withdrawal deadlines.</p> <p>Be certain you understand HCC policies about dropping a course and consult with a counselor/advisor to determine if withdrawing is in your best interest. It is your responsibility to withdraw officially from a class and prevent an “F” from appearing on your transcript. Senate Bill 1231 and limits the number of W’s a student can have to 6 classes over the course of their entire academic career. This policy is effective for students entering higher education for the first time in fall 2007 and subsequent terms. Withdrawals accumulated at any other Texas public higher education institution count toward the 6 course total. Withdrawals for certain circumstances beyond the students control may not be counted toward the 6-drop limit.</p> <p>In addition, withdrawing from a course may impact your financial aid award or eligibility. Contact the Financial Aid Office or website to learn more about the impact of withdrawing on financial aid. For complete information on HCC Course Withdrawal policy including the three-peat rule refer to the <a href="#">HCC Student Handbook</a>.</p>
<p><b>HCC Policy Statement-- Academic Honesty</b></p>	<p>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 <a href="#">HCC Student Handbook</a>.</p>
<p><b>HCC Policy Statement-- Accommodations Due to a Qualified Disability</b></p>	<p>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</p>

	<p>environments consistent with federal and state law. For more information, please go to <a href="http://www.hccs.edu/support-services/disability-services/">http://www.hccs.edu/support-services/disability-services/</a></p>
<p><b>HCC Policy Statement--Title IX</b></p>	<p>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:</p> <p style="text-align: center;"><i>David Cross</i>  <i>Director EEO/Compliance</i>  <i>Office of Institutional Equity &amp; Diversity</i>  <i>3100 Main</i>  <i>(713) 718-8271</i>  <i>Houston, TX 77266-7517 or <a href="mailto:Institutional.Equity@hccs.edu">Institutional.Equity@hccs.edu</a></i></p>
<p><b>HCC Policy Statement—Campus Carry</b></p>	<p>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 <a href="http://www.hccs.edu/district/departments/police/campus-carry/">http://www.hccs.edu/district/departments/police/campus-carry/</a>.”</p>
<p><b>HCC Policy on vaccination against bacterial meningitis</b></p>	<p>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 22 are required to present a physician-signed certificate showing they have been vaccinated against bacterial meningitis. For more information and the list of exemptions, please visit the HCC page at: <a href="http://www.hccs.edu/district/students/apply/meningitis/">http://www.hccs.edu/district/students/apply/meningitis/</a></p>
<p><b>EGLS3 -- Evaluation for Greater Learning Student Survey System</b></p>	<p>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>

**COSC 1436 – Programming Fundamentals I (Swift) – Spring 2018**  
**Tentative Course Schedule**

*Last updated 01/02/2018*

*Note: This is a tentative calendar. See Canvas Calendar for updates.*

Week	Date	Course Topic	Items Due This Week	Due Date
1		Course Orientation Module 1: Intro to computers, computer programming		
2		Module 1: Introduction to computers, computer programming, macOS, and Xcode	Assign 1 Quiz 1 Discussion 1	Jan 25 Jan 26 Jan 27
3		Module 2: Swift Basics Lessons 1, 2, 3, and 4	Lab/Class activities	Feb 06
4		Module 2 cont. Lessons 8, 9	Assign 2 Discussion 2 Quiz 2	Feb 08 Feb 09 Feb 10
5		Module 3: Making Decisions	Lab/Class activities	Feb 20
6		Module 3 cont.	Assign 3 Discussion 3 Quiz 3	Feb 22 Feb 23 Feb 24
7		Module 4: App Development in XCode (1 <sup>st</sup> iApp)	Lab/Class activities	March 01
8		Module 4 cont. APDev Guided Project	Discussion 4 Prog Assign 4	March 03 March 06
		Exam 1	<b>Exam 1 (Module 1-4)</b>	<b>March 08</b>
9	<b>SPRING BREAK</b>			
10		Module 5: Functions	Lab/Class activities	March 27
11		Module 5 Cont.	Prog.Assign 5 Quiz 5	March 29 March 31
12		Module 6: Arrays & Dictionaries	Lab/Class activities	April 10
13		Module 6 cont.	Prog.Assign 6 Quiz 6	April 12 April 14
14		Module 7: Control Flow—Repetitions (loops)	Lab/Class activities	April 24
15		Module 7 cont.	Prog.Assign 7 Quiz 7	April 26 April 28
		Exam 2	<b>Exam2 (Chapters 5-7)</b>	<b>April 17</b>
16		Module 8	Lab/Class activities Prog.Assign 8	May 03
<b>Final Exam -- (Comprehensive)</b> <b>8:00 AM May 10, 2018 in classroom</b>				