Disclaimer Reserving Right to Change Syllabus:
The instructor reserves the right to amend this syllabus as necessary.

Course and Section Number:
IMED-1391-81701: Advanced iOS App Development
(Cross-listed with ITSE-2310-81701, IMED-1345-81701, IMED-2345-81701)

Semester:
Fall 2019 Thursday Evening Flex Term Classes: September 5, 2019 – December 12, 2019

Credit Hours:
3 credit hours

Class Meeting Days and Times:
Class meets the entire time listed here.
Thursdays
5:40PM - 9:30PM

Room:
Room T255

Instructor Information:
Instructor's name: Ron Bernaldo
E-mail address: RBernaldo@dcccd.edu
Richland phone: 972-238-6140 (ACCESS Office) - leave message
Office and Mail Box Location: A110 - ACCESS Office

Prerequisite:
Suggested Prerequisite: ITSE-2310 - IOS App Programming, plus Objective-C, C++, or other object-oriented programming language

Official WECM Course Description (cannot be altered in any way):
Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

THE COURSE DESCRIPTION FOR IMED 1391 – Advanced iOS App Development is:
Advanced app development for Apple iOS mobile device market using the new Swift programming language

Official WECM End-of-Course Outcomes (cannot be altered in any way):
Learning outcomes/objectives are determined by local occupational need and business and industry trends.

THE END-OF-COURSE OUTCOMES FOR IMED 1391 - Advanced iOS App Development are:
Design advanced interfaces for iOS applications. Produce complex concept documentation. Create iOS in native SDK. Execute deployment procedures for various iOS devices.

**Official SCANS Skills:**
The Secretary’s Commission on Achieving Necessary Skills (SCANS) was appointed by the Secretary of Labor to determine the skills people need to succeed in the world of work. Richland College is determined to prepare you with the knowledge and skills you need to succeed in today’s dynamic work environment. Towards this goal, these workplace competencies and foundation skills have been designed into the curriculum for this course:

- Material and Facilities - *Acquires, stores, allocates, and uses materials or space efficiently*
- Monitors and Corrects Performance - *distinguishes trends, predicts impacts on system operations, diagnose systems performance and corrects malfunctions*
- Creative Thinking - *generates new ideas*
- Visualize (Seeing Things in the Mind’s Eye) - *organizes, and processes symbols, pictures, graphs, objects, and other information*

**Required Lab Hours:**
This course contains lecture and lab components, both held during the posted class times. Students may need to put in additional time in the Multimedia Learning Center to complete assignments.

Students are required to spend at least 2 extra hour(s) per week outside of class working on student projects.

**Multimedia Learning Center Lab Information and Hours of Operation:**
The Multimedia Learning Center (972-238-6001) is located in Thunderduck Hall, T246 and is for all currently enrolled Multimedia and Game students to use for Multimedia and Game class work and projects.

Lab assistants and faculty are usually in the lab to answer questions, however *multimedia tutoring is not available in the lab.*

**LAB HOURS**
Mon-Thurs, 9 a.m.-9:45 p.m.; Fri, 9 a.m.-4:45 p.m.;
Sat (Spring & Fall), 12 p.m.-4:45 p.m.; Sat (Summer), closed;
Sun: closed

Lab is closed for the same Holidays as the College.
The Lab may close between semesters.
The Lab may be used as a Classroom at various times during the year and will not be available to drop-in students.

The other campus computer lab for credit student use is Del Rio, D229, which has longer lab hours.

*All Multimedia (credit and continuing education) students must show a Student ID Card to use the lab and check out any equipment. IDs are available at the Office of Student Life in El Paso Hall, E040.*

**Textbooks:**
No textbook is required for this class.
None; we will use the Apple documentation.

**Supplies:**

**Required Supplies for all Courses:** headphones and some kind of external storage: jump drives, external hard drives, blank CD-Rs/DVDs or cloud storage like Dropbox.

**Other Supplies:**
Computer: Intel-based Macintosh running OS X 10.11.4 El Capitan or later.¹

Software:
- Xcode IDE 8.2.1 or later (requires an active Apple iOS Developer account).¹
- iOS SDK 9.0 or later (requires an active Apple iOS Developer account).¹

Target Device: iPhone, iPad or iPod Touch running iOS 9.0 or later.²

¹ Required computers and software will be provided by the school in class.
² Will not be required for course assignments. We'll use the simulator instead.

Course Outline:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: About Swift</td>
<td></td>
</tr>
<tr>
<td>2: Basic Operators</td>
<td>Operators</td>
</tr>
<tr>
<td>3: Strings &amp; Characters</td>
<td></td>
</tr>
<tr>
<td>4: Collection Types</td>
<td></td>
</tr>
<tr>
<td>5: Control Flow</td>
<td>Flow Control</td>
</tr>
<tr>
<td>6: Functions</td>
<td></td>
</tr>
<tr>
<td>7: Closures</td>
<td></td>
</tr>
<tr>
<td>8: Enumerations, Classes &amp; Structures</td>
<td>Classes</td>
</tr>
<tr>
<td>9: Properties</td>
<td></td>
</tr>
<tr>
<td>10: Methods</td>
<td>Methods</td>
</tr>
<tr>
<td>11: Subscripts &amp; Inheritance</td>
<td></td>
</tr>
<tr>
<td>12: Initialization &amp; De-initialization</td>
<td>Initialization</td>
</tr>
<tr>
<td>13: Automatic Reference Counting</td>
<td></td>
</tr>
<tr>
<td>Final Project</td>
<td></td>
</tr>
</tbody>
</table>

Grading Procedure:

<table>
<thead>
<tr>
<th>Grading Legend</th>
<th>Points Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 90 – 100 points</td>
<td>Participation/Attendance - 20 points</td>
</tr>
<tr>
<td>B = 80 – 89 points</td>
<td>Assignments - 40 points</td>
</tr>
<tr>
<td>C = 70 – 79 points</td>
<td>Final Project - 40 points</td>
</tr>
<tr>
<td>D = 60 – 69 points</td>
<td>TOTAL - 100 points</td>
</tr>
<tr>
<td>F = 0 – 59 points</td>
<td></td>
</tr>
</tbody>
</table>

Grade Reports:
Final grade reports are not mailed to students. You may view your final grades via eConnect. From the Current Credit Student menu, select “My Grades” under “My Personal Information.” If you are not already logged in, you will be prompted to do so. Select the grade type you wish to review. Press the submit button, and all grades for the selected grade type will be shown.

Academic Calendar:

2019 Fall Thursday Evening Flex Term Classes Multimedia/Photography Calendar

September 5, 2019 – December 12, 2019
Wednesday Evening Flex Term only. Regular classes, Saturday only courses and Online Flex Term courses have different calendars.

<table>
<thead>
<tr>
<th>CALENDAR DATE</th>
<th>CALENDAR DATE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2 (M)</td>
<td>Labor Day Holiday - campus closed, including lab.</td>
</tr>
<tr>
<td>September 5 (R)</td>
<td>Thursday Evening Flex Term courses begin</td>
</tr>
</tbody>
</table>
CALENDAR DATE          CALENDAR DATE DESCRIPTION
September 17 (T)       12th Class Day / Census Day for Thursday Evening Flex Term classes. Last day to drop a course without receiving a "W" grade on transcript.
November 18 (M)        Final Withdraw Date: Last day for Thursday Evening Flex Term classes to withdraw with a grade of "W".
November 28 – December 1 (R-Su) Thanksgiving Holiday: College buildings & offices (including the lab) will be closed for the holiday.
December 12 (R)        Final Exam Day for Thursday Evening Flex Term classes
December 12 (R)        Semester Ends. Last day lab is open for the semester.

Drop Date:
September 17 (T) is the last day to drop from this course without receiving an automatic "W" and without the course reflecting on your transcript.

Withdrawal Date:
November 18 (M) is the last day to withdraw from this course with an automatic "W".

Institutional Policies:
Available at: Syllabus Institutional Policy Statements

Classroom Policies:
Please read the following classroom policies listed below.

Attendance Policy:
In order to be successful, students must attend and participate in enrolled courses.

While Richland College does not have a formal attendance policy, students are expected to attend class regularly. If you know you will be missing classes this semester, please speak to your instructor about days you will be missing so you can receive information on the missed lessons and assignments.

If you are unable to attend class, please email the instructor or leave a message for the instructor at the ACCESS Office at (972) 238-6140 BEFORE THE CLASS BEGINS.

It is imperative students arrive to class on time and remain in class the entire session each week.

Food and Drink Policy:
Except where otherwise determined by a faculty member, no eating or drinking is allowed in the classroom.

Web Server Posting Policy:
The Richland Student Web Server is open to all users of the World Wide Web. Any information students or instructors place in their files is readable by any user of the World Wide Web.

Computer/Internet Use Policy:
Currently enrolled Richland College Multimedia, Game, and Photography students have access to the Multimedia Lab and classroom computers for Multimedia/Game/Photography educational and instructional purposes only.

Please use the Del Rio Computer Lab (D229) for other school-related assignments and non-Multimedia/Game/Photography activities.

Students using their own laptops must use the wireless connection in the Thunderduck Hall building and cannot use the Multimedia lab and classroom computer data lines to access the Internet.
You are required to show your Richland Student ID when requested by lab personnel. You are expected to follow lab policies as well as the Student Code of Conduct specified in the catalog. If the link does not work for you (ie: you have a hard copy of the syllabus), copy/type this url into your browser window:
http://www.richlandcollege.edu/conduct/

Safety Policy:
Students should participate in this class in a safe, appropriate manner. We occasionally have to step over cords for the multimedia cart and/or computer equipment. We also need to watch out for boxes and paper, students' backpacks, etc. Students should begin to build good computing habits, designed to prevent eyestrain, carpal tunnel syndrome, etc.

Handheld Devices Policy:
Please turn OFF all electronic devices during class.

Participation Policy:
Course participation is required. Ask questions and be involved with the lesson.

Students should not surf the Net, play games, send emails or work on unrelated homework/projects during class. Students should not disturb your neighbors during lectures and demos.

End of Each Class Policy (for face-to-face classes):
When you leave class for the day, please...

1. Delete all your files from your workstation and empty the trash.
2. Shut down your computer using Windows Shut Down.
3. Turn off your monitor after computer has COMPLETELY shut down.
4. Pick up and throw away any trash around your seat.

Attention Continuing Education Students:
To receive a certificate for this course, you must make a grade of "C" or higher as a final grade. A grade average of 69% or lower is failing.

Continuing Education will not mail your certificate to you. If you do not receive your certificate the last day of class you will have to pick up your certificate at the Continuing Education Front Desk, T160.

The Multimedia Learning Center Department’s Web Sites:
Multimedia
Photography
Game

The Multimedia Learning Center is part of the Richland College School of Engineering and Technology. Office: Wichita Hall, WH-101 • Phone: 972-238-6210.

Student Acknowledgement:
Please download, read and sign this Student Acknowledgement and turn it in to your instructor.