

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW COURSE PROPOSAL</b> <b>Graduate Programs</b>		UGPC Approval _____ UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	<b>Department</b> Computer and Electrical Engineering and CS <b>College</b> Engineering and Computer Science (To obtain a course number, contact <a href="mailto:erudolph@fau.edu">erudolph@fau.edu</a> )		
<b>Prefix</b> COP <b>Number</b> 5675	(L = Lab Course; C = Combined Lecture/Lab; add if appropriate) <b>Lab Code</b>	<b>Type of Course</b> Lecture	<b>Course Title</b> Mobile App Development
<b>Credits</b> (Review <a href="#">Provost Memorandum</a> ) 3	<b>Grading</b> (Select One Option) <b>Regular</b> <input checked="" type="radio"/> <b>Sat/UnSat</b> <input type="radio"/>	<b>Course Description</b> (Syllabus must be attached; see <a href="#">Guidelines</a> ) This course provides study and practice of the lifecycle of a mobile app development. Class covers architecture, design and engineering issues, techniques, and methodologies for mobile application development. Students will learn a framework for mobile app development and work on a practical project where they can demonstrate their newly acquired skills.	
<b>Effective Date</b> (TERM & YEAR) Fall 2020	<b>Prerequisites</b> A college-level programming course.		<b>Corequisites</b>
		<b>Registration Controls</b> (Major, College, Level) Graduate and Senior students.	
<b>Prerequisites, Corequisites and Registration Controls are enforced for all sections of course</b>			
<b>Minimum qualifications needed to teach course:</b> Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field.)		<b>List textbook information in syllabus or here</b> Beginning Flutter: A Hands On Guide to App Development, Marco L. Napoli; ISBN-13: 978-1119550822 (Wrox, 2019) Flutter in Action, Eric Windmill; ISBN-13: 978- 1617296147 (Manning, 2020)	
<b>Faculty Contact/Email/Phone</b> Oge Marques/ <a href="mailto:omarques@fau.edu">omarques@fau.edu</a> /561-297-3857		<b>List/Attach comments from departments affected by new course</b> NA	

<b>Approved by</b> Department Chair <u>Hanqi Zhuang</u> College Curriculum Chair <u>Ramesh Teegavarapu</u> College Dean <u>Mihaela Cardel</u> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____	<small>Digitally signed by Hanqi Zhuang DN: cn=Hanqi Zhuang, o=FAU, ou=CCECS, email=zhuang@fau.edu, c=US Date: 2020.02.24 11:50:23 -0500</small> <small>Digitally signed by Ramesh Teegavarapu DN: cn=Ramesh Teegavarapu, o=Florida Atlantic University, ou=CCECS, Environmental and Geomatics Engineering, email=teegav@fau.edu, c=US Date: 2020.02.27 10:14:42 -0500</small> <small>Digitally signed by Mihaela Cardel DN: cn=Mihaela Cardel, o=Florida Atlantic University, ou=Engineering and Computer Science, email=cardel@fau.edu, c=US Date: 2020.02.27 12:48:54 -0500</small>	<b>Date</b> <u>2/24/2020</u> <u>2/27/2020</u> <u>2/27/2020</u> _____ _____ _____ _____ _____
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Email this form and syllabus to [UGPC@fau.edu](mailto:UGPC@fau.edu) one week before the UGPC meeting.

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**Department of Computer & Electrical Engineering  
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Course Syllabus**

<b>1. Course title/number, number of credit hours</b>	
Mobile App Development - CAP 5675	3 credit hours
<b>2. Course prerequisites, corequisites, and where the course fits in the program of study</b>	
Prerequisites: A college-level programming course.	
<b>3. Course logistics</b>	
Term: Fall 2020 Class dates and times: TBA Class location: TBA	
<b>4. Instructor contact information</b>	
<i>Instructor's name</i>	Dr. Oge Marques
<i>Office address</i>	EE 441 (Engineering East (96) building)
<i>Office Hours</i>	TBD
<i>Contact telephone number</i>	561-297-3857
<i>Email address</i>	<a href="mailto:omarques@fau.edu">omarques@fau.edu</a>
<b>5. TA contact information</b>	
<i>TA's name</i>	N/A
<i>Office address</i>	
<i>Office Hours</i>	
<i>Contact telephone number</i>	
<i>Email address</i>	
<b>6. Course description</b>	
This course provides study and practice of the lifecycle of a mobile app development. Class covers architecture, design and engineering issues, techniques, and methodologies for mobile application development. Students will learn a framework for mobile app development and work on a practical project where they can demonstrate their newly acquired skills.	
<b>7. Course objectives/student learning outcomes/program outcomes</b>	
<i>Course objectives</i>	By the end of the course, students should be able to: <ul style="list-style-type: none"> <li>1. Demonstrate understanding of the most important technical aspects of mobile app development.</li> <li>2. Be competent with the characterization and architecture of mobile applications.</li> <li>3. Demonstrate understanding enterprise scale requirements of mobile applications.</li> <li>4. Be competent with designing and developing mobile applications using one application development framework.</li> <li>5. Improve their ability to work independently on creative and novel projects.</li> </ul>
<b>8. Course evaluation method</b>	

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Project (Final app)                      50% 2 Online quizzes                              30% (each quiz is 15%) 2 Hands-on Assignments                      20% (each assignment is 10%)	
<b>9. Course grading scale</b>	
Grading Scale: 93 and above: "A", 90-92: "A-", 87-89: "B+", 83-86: "B", 80-82: "B-", 77-79: "C+", 73-76: "C", 70-72: "C-", 67-69: "D+", 63-66: "D", 60-62: "D-", 59 and below: "F."	
<b>10. Policy on makeup tests, late work, and incompletes</b>	
<p><i>Makeup tests</i> are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student of participating in the exam. Makeup exam should be administered and proctored by department personnel unless there are other pre-approved arrangements.</p> <p><i>Late assignments</i> will be graded with a penalty of 10% of the maximum possible grade for each day after the assignment's due date, up to a maximum of 3 days late (i.e., 30% penalty), beyond which the assignment will receive a grade o (zero).</p> <p><i>Incomplete grades</i> are given only if there is solid evidence of medical or otherwise serious emergency situation <u>and</u> the student is currently passing the class.</p>	
<b>11. Special course requirements</b>	
N/A	
<b>12. Classroom etiquette policy</b>	
Students are required to comply with all requirements specified in the student code of conduct and not in any way disrupt the class or prevent other students from benefiting from the class. Students are to speak and behave respectfully to each other and to all FAU faculty and staff.	
<b>13. Attendance policy statement</b>	
Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the	

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opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

**14. Disability policy statement**

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

**15. Counseling and Psychological Services (CAPS) Center**

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

**16. Code of Academic Integrity policy statement**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#). If your college has particular policies relating to cheating and plagiarism, state so here or provide a link to the full policy—but be sure the college policy does not conflict with the University Regulation.

**17. Required texts/reading**

Required Books:

1. **Beginning Flutter: A Hands On Guide to App Development**  
Author: Marco L. Napoli; ISBN-13: 978-1119550822 (Wrox, 2019)
2. **Flutter in Action**  
Author: Eric Windmill; ISBN-13: 978-1617296147 (Manning, 2020)

**18. Supplementary/recommended readings**

Additional reading materials will be provided during the semester.

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CAP 5675 – Mobile App Development  
Fall 2020  
Prof. Oge Marques, PhD

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**19. Course topical outline, including dates for exams/quizzes, papers, completion of reading**

Week	Plan	Assignments due
1	Introduction to course contents, goals, and methodology Mobile app development: the basics	
2	Getting started with Flutter and Dart	
3	Flutter and Dart (cont'd)	
4	Flutter and Dart (cont'd)	Online quiz 1
5	Flutter and Dart (cont'd)	Hands-on Assignment 1
6	Flutter UI	
7	Flutter UI (cont'd)	
8	Flutter Routing	Hands-on Assignment 2
9	Flutter Routing (cont'd)	
10	Flutter State Management	
11	Flutter State Management (cont'd)	
12	Async Dart and Flutter	
13	Working with Data: HTTP, Firestore, JSON	
14	Working with Data: HTTP, Firestore, JSON (cont'd)	
15	Testing Flutter Apps	Online quiz 2
16	Final Project Discussions Mobile App Development market: outlook and predictions	
17	<b>Final Project Presentations including Prototype Demo</b>	Final project, report, and PPT

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