

 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>COURSE CHANGE REQUEST</b> <b>Undergraduate Programs</b>	UUPC Approval <u>10-11-21</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Electrical Engineering and Comp Science College Engineering and Computer Science	
<b>Current Course Prefix and Number</b> COP 4655	<b>Current Course Title</b> Mobile App Projects	
<i>Syllabus must be attached for ANY changes to current course details. See <a href="#">Checklist</a>. Please consult and list departments that may be affected by the changes; attach documentation.</i>		
<b>Change title to:</b>  <b>Change prefix</b> From: _____ To: _____ <b>Change course number</b> From: _____ To: _____ <b>Change credits*</b> From: _____ To: _____ <b>Change grading</b> From: _____ To: _____ <b>Change WAC/Gordon Rule status**</b> Add <input type="checkbox"/> Remove <input type="checkbox"/> <b>Change General Education Requirements***</b> Add <input type="checkbox"/> Remove <input type="checkbox"/> <small>*Review <a href="#">Provost Memorandum</a></small> <small>**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See <a href="#">WAC Guidelines</a>.</small> <small>***General Education criteria must be indicated in syllabus and approval attached to this form. See <a href="#">GE Guidelines</a>.</small>	<b>Change description to:</b> See syllabus attached for new description.  <b>Change prerequisites/minimum grades to:</b> COP 3410 or COP 3530 with minimum grade of "C"  <b>Change corequisites to:</b>  <b>Change registration controls to:</b>  Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).	
<b>Effective Term/Year for Changes:</b> Spring 2022	<b>Terminate course? Effective Term/Year for Termination:</b>	
<b>Faculty Contact/Email/Phone</b> Hanqui Zhuang, zhuang@fau.edu, 561-297-3413		
<b>Approved by</b> Department Chair _____ College Curriculum Chair <u>Dan Meeroff</u> College Dean <u>Fred Bloetscher</u> UUPC Chair <u>Dan Meeroff</u> Undergraduate Studies Dean <u>Edward Pratt</u> UFS President _____ Provost _____	<b>Date</b> 9/23/2021 10-4-21 10-4-21 10-11-21 10-11-21 _____ _____	

Email this form and syllabus to [mjenning@fau.edu](mailto:mjenning@fau.edu) seven business days before the UUPC meeting.

Department of Electrical Engineering and Computer Science  
Florida Atlantic University  
Course Syllabus

<b>1. Course title/number, number of credit hours</b>		
Mobile App Projects – COP4655	3 credit hours	
<b>2. Course prerequisites, corequisites, and where the course fits in the program of study</b>		
COP 3410 or COP 3530 with minimum grade of "C"		
<b>3. Course logistics</b>		
Term: Spring 2022 Class location and time: TBD		
<b>4. Instructor contact information</b>		
Instructor's name Office address Office Hours Contact telephone number Email address		
<b>5. TA contact information</b>		
TA's name Contact telephone number Email address	Bijayita Thapa (grader) 561-506-2747 bthapa@fau.edu	Daniel Bennett (technical help) 561-907-3705 dbenne11@fau.edu
<b>6. Course description</b>		
This course is an introduction to mobile app development for common mobile platforms. Course will use frameworks and tools that are widely used in the industry. Students will learn fundamentals of app development and complete a course project.		
<b>7. Course objectives/student learning outcomes/program outcomes</b>		
Course objectives	<p>By the end of the course, students should be able to:</p> <ul style="list-style-type: none"> <li>• Design and implement interactive mobile web-based apps using contemporary tools and technologies, particularly the JavaScript programming language and selected libraries.</li> <li>• Design and implement interactive mobile apps using contemporary mobile development toolkits, languages, and technologies.</li> <li>• Demonstrate understanding of the most important technical and business aspects of mobile app development.</li> <li>• Demonstrate the ability to design, test, deploy and plan the development of a mobile app</li> <li>• Use logic and critical thinking to recognize opportunities as well as to understand and avoid threats to solve problems.</li> <li>• Demonstrate effective oral and writing communication skills necessary to be effective in a development/software engineering environment.</li> </ul>	
Student learning outcomes & relationship to ABET 1-7 outcomes	<ol style="list-style-type: none"> <li>1. An Ability to identify, formulate, and solve complex computing/engineering problems by applying principles of computing, engineering, science, and mathematics. (Problem solving)</li> <li>2. An ability to apply the computing/engineering design process to produce solutions that meet a given set of computing/engineering requirements with</li> </ol>	

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	<p>consideration for public health and safety, and global cultural, social, environmental, economic, and other factors as appropriate to the discipline. (Design)</p> <p>5. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines, creates a collaborative and inclusive environment and engages in activities appropriate to the program's discipline. (Teamwork)</p> <p>6. An ability to apply engineering/computer science theory and hardware/software development fundamentals to develop and conduct appropriate experimentation, analyze and interpret data, and use computing/engineering judgment produce engineering/computing-based solutions/conclusions. (Experimentation and/or simulation)</p>
<b>8. Course evaluation method</b>	
<p>Quizzes ..... 20 % Homework ..... 50 % Project ..... 30 % Final project will be comprised of 3 parts: 1. Project Design (20%) 2. Project Code + Github + AppStore (50%) 3. Project Writeup + Demo Video/Presentation (30%)</p>	<p><b>Quizzes</b> include multiple-choice type tests administered online using Canvas. <b>Homework</b> assignments require some exposure to programming in languages such as Java, JavaScript, HTML, CSS. <b>Project</b> takes the students through a process on how to design, develop, test, deploy a mobile app.</p>
<b>9. Course grading scale</b>	
<p>A: 100-95, A-: 94-90, B+: 89-87, B: 86-83, B-:82-80, C+: 79-77, C: 76-73, C-:72-70, D+: 69-67, D: 66-63, D-: 62-60, F:59-0</p>	
<b>10. Policy on makeup tests, late work, and incompletes</b>	
<p>Late work is not acceptable, except for special (e.g. medical) circumstances and advance notice. Incomplete grades are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation incomplete grades will not be given.</p>	
<b>11. Special course requirements</b>	
<p>Students are responsible for applying proper backup procedures to preserve their work on homework assignments and the project. Common methods involve copying files periodically and as necessary to USB flash drives, the FAU drives, Google Drive, Box, or some other online service. Also, project work will be done using github and it will be required throughout the process of the project.</p> <p>Students need to have full access to a developer level PC – minimum requirements – 2 GHz 4-Core i5 with 8 gigs RAM - running Windows, Linux, or Mac OS with internet access. Students are required to download and install: <a href="https://developer.android.com/studio">https://developer.android.com/studio</a></p> <p>Strongly Recommended using an actual Android mobile device to develop and test applications being developed in order to get the most experience in mobile development: <a href="https://www.amazon.com/gp/product/B07Z45ZP1N/ref=ppx_yo_dt_b_asin_title_006_soo?ie=UTF8&amp;psc=1">https://www.amazon.com/gp/product/B07Z45ZP1N/ref=ppx_yo_dt_b_asin_title_006_soo?ie=UTF8&amp;psc=1</a></p>	
<b>12. Classroom etiquette policy</b>	
<p>Students registered for the live section are required to attend the lectures. Remote and distance learning students are required to watch the recorded lectures. Homework, Quizzes and Final Project depend on the material presented in the lectures.</p>	

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All class material and assignments will be posted on Canvas. Students need log in several times per week to make sure they are up to date with announcements, postings, messages, assignments and due dates. Slack will be used throughout the semester for additional information and technical support

**13. Attendance policy statement**

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 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**

To reduce costs for our students, we strongly encourage you to explore the adoption of open educational resources (OER), textbooks and other materials that are freely accessible. We also encourage you to clearly state in the syllabus if course materials are available on reserve in the Library.

**Lean Mobile App Development**

By: Mike van Drongelen

- Publisher: Packt Publishing
- Print ISBN: 9781786467041, 1786467046

<https://www.vitalsource.com/educators/products/lean-mobile-app-development-mike-van-drongelen-v9781786467478>

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**18. Supplementary/recommended readings**

<https://developer.android.com/studio/releases/sdk-tools>  
<https://facebook.github.io/react-native/>  
<https://getbootstrap.com/>  
<https://www.w3.org/standards/webdesign/mobilweb>  
<https://www.nativescript.org/>  
<https://tabris.com/>  
<https://firebase.google.com/>  
<https://cordova.apache.org/docs/en/latest/>  
<https://learning.postman.com/>

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

Course outline will be posted in Canvas by first day of semester class and syllabus will be updated  
 Instructor reserves the right to adjust this syllabus as necessary.  
 The course uses Canvas for notes, assignments, announcements, and all course information (restricted to enrolled students).

**Mobile App Projects - COP-4655/COP-5675 - Spring 2021 Course Outline**

Week#	Date	Topic	Deliverable Due
1	1/11	Mobile App Development Introduction	
2	1/18	ML King Day - No Class	
3	1/25	Mobile Hybrid Apps - Cordova + Android Studio	HW0, Quiz0
4	2/1	Mobile HTML5/CSS3/Javascript	HW1
5	2/8	Mobile Hybrid Web Services - part 1 - postman, json	HW2
6	2/15	Mobile Hybrid Web Services - part 2 - weather, map, currency apis	HW3, Quiz1
7	2/22	Mobile Hybrid Web Services - part 2 - db, camera, login	
8	3/1	Android Mobile Development - My First App & Java Basics	HW4
9	3/8	Web Services, json	HW5, Quiz2
10	3/15	Android Device services (GPS, Maps, Speech)	HW6
11	3/22	Android Device services - compound app and more	HW7, Quiz3
12	3/29	Mobile Project Development - MVP Definition	HW8
13	4/5	Mobile Backend as a Service (MBaaS), Firebase, Login	Proj. Def, Quiz4
14	4/12	Mobile App Testing and Deploying to App Store	
15	4/19	Special Topics - debugging, performance, github and others	
16	4/26	Final Project Due	Final Project

Last Updated: 1/7/2021