IT472 Mobile Operating Systems Development
Course Policy, Spring AY20
Coordinator: Assoc. Prof. Adina Crainiceanu, x3-6822, adina@usna.edu, MI362
Course Description: This course will teach students how to write software for mobile devices while reinforcing the principles of good object-oriented software development. To that end, this course will cover the necessary topics required for writing Android applications. We will apply the fundamentals of object-oriented programming using Java. Students will also become well versed in XML, the Android Software Development Kit, the Android Studio IDE, Android application components and features, and other topics of interest. In addition to the basics of Android programming, we will cover several specialized topics on mobile programming, including networking, using location data, streaming media, etc.
Credits: 2-2-3
Prerequisites: IC211 Object Oriented Programming with Java
Learning Objectives:

1. Apply the principles of Object Oriented programming in the development of software for mobile devices.
2. Understand how code is organized in an Android application, the purpose of each part and their relationship with each other.
3. Demonstrate an understanding of the major components of Android applications, including Views, Activities, Services, Intents and Receivers.
4. Design, develop and debug mobile applications for the Android operating system.
5. Understand the security concerns unique to mobile devices.

Textbook: Because of the speed of technology change, and the inability of traditional publishers to keep up, we do not have a required textbook. Course material will be in the form of web-based lecture notes, sample programs, and in class discussions and demonstrations. Students will occasionally be referred to online materials for additional or alternative sources of information.
Extra Instruction: Extra Instruction (EI) is available and encouraged when your own attempts to understand the subject matter are unsuccessful. It is the responsibility of the student to identify specific questions with regard to the assignment, and to have made an attempt at understanding before making any request for extra instruction. Requests for EI should be made via email to ensure proper documentation. Students may also show up at the instructor's office without appointment, however no expectation of instructor availability should be assumed. Email questions are also encouraged, though in some cases the reply will request in-person EI as the most effective solution.
Collaboration: The guidance in the Honor Concept of the Brigade of Midshipmen and the Computer Science Department Honor Policy must be followed at all times. See www.usna.edu/CS/resources/honor.php. Specific instructions for this course:

- Assignments/Projects/Exams: Unless explicitly stated in writing, collaboration on all assignments and/or projects is strictly prohibited. This includes:
    - Copying any portion of another student's programs or code, or allowing another student to copy your programs or code.
    - Viewing another student's programs or code, or allowing another student to view your programs or code.
    - Discussing your code with another student.
- Labs: During the conduct of class, collaboration is encouraged if we are simply reinforcing the day's lecture topic.

All collaboration and outside sources should always be cited. The same rules apply for giving and receiving assistance. If you are unsure whether a certain kind of assistance or collaboration is permitted, you should assume

it is not, work individually, and seek clarification from your instructor.

Classroom Conduct: The section leader will record attendance and bring the class to attention at the beginning and end of each class. If the instructor is late more than 5 minutes, the section leader will keep the class in place and report to the Computer Science department office. If the instructor is absent, the section leader will direct the class in productive work. Drinks are permitted, but they must be in reclosable containers. Food, alcohol, smoking, smokeless tobacco products, and electronic cigarettes are all prohibited. Cell phones must be silent during class.

Late Policy:

- Each assignment must be completed and submitted by the respective due date and time. Late submissions will incur an automatic 15 point grade deduction for each 24 hour period after the original due date/time, with the first period beginning one minute after the date/time due. After 72 hours a grade of 0 will be assigned.
- Each student will have two grace days which they can use to submit an assignment late without incurring a point deduction. Each grace day is equivalent to one 24-hour period. In order to use a grace day, the student must notify the instructor of his/her intention prior to the original assignment due date and time. Once all grace days are used, the normal late submission policy will be applied.

Grading:

	6 weeks	12 weeks	Final
Exams	40%	40%	25%
Assignments	60%	50%	50%
Final Project	0%	10%	25%
Total	100%	100%	100%

- Examinations: Exams will be practical application of the cumulative information covered to that point in the semester. If a student must miss class on the day of an exam due to a legitimate reason, the student shall request a make-up exam at least 1 week in advance of the scheduled exam date. This request shall be made via email to ensure proper documentation.
- Final Projects: Each student will design and implement an Android application of their choosing. The project guidelines, requirements, and milestone delivery dates will be distributed during the semester. No late projects will be accepted without prior approval from the instructor. The project grade will be assigned based on the quality of work and the instructor's estimation of the final product and demonstrated effort, as well as peer evaluations of the final presentation.
- Assignments: The majority of your grade will come from the completion of programming assignments, each covering a unique topic in mobile development. There will be multiple assignments spread out over the whole semester.

Policy Approval:

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Assoc. Prof. Adina Crainiceanu
Course Coordinator

CAPT Mike Bilzor
Computer Science Department Chair