Mobile App Development
Mr. Tra – Room 17

Introduction

Welcome to Mobile App Development! This is a course in mobile computing with a strong emphasis on application development for the Android operating system. The intent is to develop proficiency in Android programming, from basic to advanced.

Here's a rough estimate of topics we may cover this semester

- The Android Development Environment
    - SDK, Debugging, Emulation and Deployment
- Fundamental Components of Android Programs
    - activities, layouts, widgets, listeners, menu commands, intents, multiple views, built-in animations, simple persistence.
- Understanding the activity lifecycle, performing correctly under suspend/resume.
- Interactivity, Cloud Data, Authentication, and Basic Signal Processing

Resource Site / Book:

Codepath Android Cliffnotes https://guides.codepath.com/android
Bill Phillips and Brian Hardy, *Android Programming: The Big Nerd Ranch Guide*, Big Nerd Ranch, 2013

Daily Procedures and Expectations

In General…
- Disrespectful behavior is *NOT* allowed. Respect yourself and others
- Be in seat *before* class starts with materials out and ready for class
- Participate: class time is for class activities.
- Maintain an active Blackboard and email account, checked regularly.

Attendance

Regular attendance is required for success in any course. Tardiness will NOT be tolerated. Absences, excused and unexcused, inherently contribute to falling behind and lower grades. 8th Period Make-ups are strongly encouraged for missed class.

Group Work

Lab work is expected to be individual work unless explicitly stated otherwise. Nonetheless, I view my classroom as a team of scholars. As a scholarly team, we are here to learn, be academically successful and communicate high level ideas with our peers. Conversation stimulates the brain.

Independent Work and Academic Integrity
The TJ Honor Code Pledge is: "**I will uphold academic and personal integrity in the TJ community."**

Thomas Jefferson High School for Science and Technology prides itself on being a school community striving for the highest standards of integrity. We believe that our entire school community should always behave in a way that is consistent with the TJHSST Honor Code. As a commitment to that belief, all students will write and sign the Honor Code Pledge on each assessment that they take while a TJ student.

Students are encouraged report integrity violations. Grades are earned through hard work and the development of knowledge in this class. A grade that is unjustly inflated dilutes the accomplishments of the collective, and will not be tolerated.

The differences between copying code and collaboration (implicitly or explicitly) must also be understood. If you have any question as to whether or not what you are doing is considered copying, **you must ask me**. Code can be tricky at first until you get the hang of it; for example there are essential skeletal base structures in web and mobile code, or at times there may be only a singular way to solve a task – either of which may be expressed completely in an example or web resource. The example code (and similarly any collaborative efforts with your peers), however, should only represent only singular solutions within the greater context of your own authentic work AND any example code used must be highlighted. Failure to do so will be considered a breach of the honor code.

In short, collaboration implies that you will discuss the material to develop a better understanding so that you can proceed with the assignment. Collaboration does NOT mean copying another person's work. If there are any questions, ask.

A grade of zero will be enforced for all in violation of the Honor Code.

Personal Electronic Devices
This is a computer programming course and as such you are permitted to work on your own laptop; this will ease the load of school computer usage. Nonetheless, electronic responsibility is in effect. It is assumed that:
- All computer use, whether on your computer or the school computer, will be course related
- Class time will not be used to install software on your personal computer, unless specifically instructed by Mr. Tra
- Being sneaky on the computer breeds a culture of subversion and mistrust – and sends the message that the class time is not work time
- You will use your personal devices responsibly. We have Android phones for programming in the room, however you are permitted to code on your personal Android device. You are **not** permitted to engage in non-course related material on your phone in this time. Use common sense.

Personal Electronic Devices
Each person is responsible for their own mess. No student will be allowed to leave the room until all materials are put away. Lab activities will cease at least 2 minutes prior to the end of the period to ensure that your phone is returned to the locker.

General Rules:

Laboratory, Group & Independent Work, Class work and Homework.
1. Use common sense when brining food into the room. If you cannot handle eating, I reserve the right to revoke food privileges
2. Class time is Android time, not time to work on materials for any other subject.
3. Independent work – within the class you *MAY* collaborate with your peers to <u>discuss</u> problem solving, difficulties with material, etc. You *MAY NOT* copy any student's work – any form of this is considered plagiarism or cheating, and will not be tolerated. A grade of zero will be enforced for all involved so be careful that someone else isn't trying to copy your hard work. Collaboration is encouraged; communication helps you learn and reinforce concepts – but be aware that the fertile fields of collaboration give way to the perilous cliffs of cheating. Do not collaborate blindly.
4. During class – all students will participate and be respectful of their peers comments, questions, lab work, etc.

Grading Policies

Grades for the class will be based upon a point system. Each item is worth a certain amount of points and your average is based upon the total points you received relative to the total possible points. The letter grade you receive is based upon the Fairfax County Public Schools grading scale (**A ≥ 92.500**, NOT 92.499, etc.).

A = 100 to 93	B- = 82 to 80	D+ = 69 to 67
A- = 92 to 90	C+ = 79 to 77	D = 66 to 64
B+ = 89 to 87	C = 76 to 73	F < 64
B = 86 to 83	C- = 72 to 70	

This class is primarily project oriented and grades will be based upon submission of various items. Points will be explained for specific assignments. Roughly speaking, the primary grades for the course will be a sequence of labs. Each lab will be worth around 20 points, and will have a 1-2 week period for completion. Additionally, there will be roughly 10 point quizzes that assess the major topics from the labs. There is no final exam; however there will be a final project.

Late Assignments

The labs in this course are set at a pace that is reflective of the advanced nature of the course. These deadlines allow the course to move forward and deeper into the cumulative subject matter. With this in mind, late labs are accepted but will be deducted at the schedule of 20%, 20% and 10% per school day, whether or not the course meets. The maximum grade for a lab turned in 3 days late (or more) will be 50%. Late work not submitted by the end of the quarter will receive a score of 0 points. It is the **student's** responsibility to speak to me about any problems *before* the due date if problems arise. Patterns of late work will be reported to parents and counselors, and may result in the use of 8th period stickies to ensure completion.

Student Advocacy

Assignments in this course will be labs and occasionally quizzes. Due dates for labs will be given a week in advance. Quizzes will be identified one to two classes in advance. If you have an academic conflict with a lab due date, I am willing to discuss modifications if you come to speak with me at least two days in advance. I am less willing to modify quiz dates as they are a formative reflection of the work we are doing in class. If you have personal conflicts with dates though, please come talk to me. I understand that there is a lot on your plate, and reasonable requests are generally honored.

Classroom Management:

Please arrive to class on time. There are no bells at TJ so it the student's responsibility to get to class within the 10 minutes allotted between classes.

Class time is work time, you are expected to be on task and maximize the time and resources; you have surprisingly limited class time to complete your labs – maximize your productivity while in class. While there is no explicit requirement of homework you are encouraged to complete work at home, however patterns of inactivity in the class coupled with work completed outside the class will be subject to the highest levels of scrutiny.

As young adult students are expected act appropriately in the classroom (as well as outside the classroom). Please be mindful to use appropriate language, and appropriate behavior, and most certainly be respectful to other classmates.

Contact Information:

Email	DLTra@fcps.edu
Blackboard	http://fcps.blackboard.com
Phone	703-750-8300