COSC 3352.001 Mobile Programming
School of Engineering and Computer Science
Spring 2017

A. COURSE INFORMATION
   Course number/section: COSC 3352.001
   Class meeting time: TR 3:30 - 4:45 PM
   Class location: IH-162
   Course Website: http://faculty.tamucc.edu/~akatangur/sp17/COSC3352

B. INSTRUCTOR INFORMATION
   Instructor: Dr. Ajay K Katangur
   Office location: CI 340
   Office hours: TR 1:15 PM -3:15 PM, W 10:00 AM - 11:00 AM
   Telephone: 361-825-2478
   e-mail: ajay dot katangur at tamucc dot edu
   Appointments: By e-mail

C. COURSE DESCRIPTION
   Catalog Course Description
   This course introduces software development for mobile platforms. Students will learn skills
   for creating and deploying mobile applications. Includes software engineering topics as
   related to mobile programming, primarily in how software design differs on mobile
   platforms.

   Extended Course Description
   None

D. PREREQUISITES AND COREQUISITES
   Prerequisites
   COSC 2437 (Data Structures). If you do not have the prerequisites (or equivalents from
   another university) shown on your TAMUCC records, you may be dropped from class at any
   time.

   Corequisites
   None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES
   Required Textbook(s)
   Android 6 for Programmers: An App-Driven Approach (3rd Edition) by Paul Deitel, Harvey
Optional Textbook(s) or Other References
None

Supplies
None

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT
Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to:
1. Create and maintain a high-quality mobile software product using Android
2. Evaluate and analyze existing Android apps.
3. Gain a breadth of knowledge in developing applications with the Android SDK
4. Gain a depth of knowledge in select areas of the Android SDK
5. Gain experience working as a member of a team to meet project milestones
6. Demonstrate their ability in understanding the software process
7. Effectively communicate about mobile application development
8. Develop high quality android mobile apps working in groups by applying their Android development skills.

Assessment of objectives will be conducted through exams, quizzes, homework assignments, and projects.

G. INSTRUCTIONAL METHODS AND ACTIVITIES
Lectures using online electronic documents and slides.

H. MAJOR COURSE REQUIREMENTS AND GRADING
This is a difficult course that demands all students attend all classes! Regular completion of all reading, homework, and other outside assignments, are absolutely essential for success in this course.

Your course grade will be decided on your performance in the homework assignments, quizzes, projects, and two exams. The distribution of points is as follows:
<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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</thead>
<tbody>
<tr>
<td>Exams</td>
<td>30</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>40</td>
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<tr>
<td>Final Group Project</td>
<td>20</td>
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</tbody>
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**Grading scale:** A: 100-90, B: 89-80, C: 79-70, D: 69-60, and F: 59-0.

**Homework Assignments and Quizzes:** Approximately 6-7 homework assignments will be given. Partial credit will be given for incomplete assignments.

**Quizzes:** There will be several announced and unannounced quizzes during the semester.

**Group Project:** There will be a semester long programming project to develop a mobile application of the student's choosing. Projects will be in teams of one to three. The idea for the project must be approved by the instructor. Additional details on the project will be available on the class website.

**Exams:** The first exam will be given on March 9, 2016, and the second exam will be given on April 27, 2016. The final exam time will be used for final project presentations.

**I. COURSE CONTENT/SCHEDULE**

<table>
<thead>
<tr>
<th>Week 1:</th>
<th>Syllabus, Introduction</th>
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<tbody>
<tr>
<td>Week 2:</td>
<td>Android App Basics, Hw1</td>
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<td>Week 3:</td>
<td>Android Market and App Business Issues</td>
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<td>Week 4:</td>
<td>User Interface, Hw2</td>
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<tr>
<td>Week 5:</td>
<td>Building Android App with Java, Hw3</td>
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<td>Week 6:</td>
<td>Shared Preferences, Buttons, Nested Layouts, Intents, AlertDialogs, Inflating XML Layouts and the Manifest File</td>
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<tr>
<td>Week 7:</td>
<td>Shared Preferences, Buttons, Nested Layouts, Intents, AlertDialogs, Inflating XML Layouts and the Manifest File, Hw4</td>
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<td>Week 8:</td>
<td>Assets, Asset Manager, Tween Animations, Handler, Menus, Error Logs, Exam 1</td>
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<td>Week 9:</td>
<td>Spring Break</td>
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<td>Week 10:</td>
<td>Touches and Gestures, Frame-By-Frame Animation, Graphics, Sound, Threading, SurfaceView and SurfaceHolder, Hw5</td>
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<td>Week 11:</td>
<td>Property Animation, ViewPropertyAnimator, AnimatorListener, Thread-Safe Collections, Default SharedPreferences for an Activity</td>
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<td>Week 12:</td>
<td>Two-Dimensional Graphics, SensorManager, Multitouch Events and Toasts, Hw6</td>
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<tr>
<td>Week 13:</td>
<td>ListActivity, AdapterViews, Adapters, Multiple Activities, SQLite, GUI Styles, Menu Resources and MenuInflater</td>
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</table>
Week 14: Google Maps API, GPS, LocationManager, MapActivity, MapView and Overlay, Hw7

Week 15: Web Services, JSON, Fragments, ActionBar, App Widgets, Broadcast Intents and BroadcastReceiver, Exam 2

Week 16: Final Projects Demo

Final Projects Demo on Thursday, May 4, 2016 from 4:30 – 7:00 PM

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

Course Syllabus: We will meet for lecture on Tuesdays and Thursdays, when new material will be presented. We will follow the text generally, but non-text material may also be included in the lectures. The assignments and exams will be given during the class hours. You are responsible for all the material presented during the lecture.

Exams: Exams will cover all lecture and reading material discussed in the class. Exams must be taken on the hour they are scheduled.

Missed Exam: In the event, if you cannot attend the class to take the exam due to some emergency or some unavoidable situation (such as serious illness, death in the family, participation in university sports, religious observations, and so on) you must notify me as soon as possible before the exam and also you must validate your absence by providing me a document (e.g., with a letter from your doctor). Once your cause is validated a make-up exam will be given.

Homework Assignments & Projects: They will significantly be based on the material from the lectures and other material considered essential for the successful completion of this course. They will be posted on the course web page or hard copies are handed out in the class during the lecture sessions. The submission details will be provided to you along with the assignment. All the homework assignments and projects are due at the beginning of the class on the due date. If the student is absent on the due date, it is the student's responsibility to see to it that the assignment is submitted on the designated date. No late homework assignments will be accepted. Late projects will be accepted. There is a penalty for late submissions. A project that is turned in after the class on the due date is considered one day late. There is a penalty for late submissions. 25% penalty for 1 day late, 50% penalty for 2 days late, 75% penalty for 3-4 days late and 100% penalty (i.e. no credit) if submitted after 4 days. If you have not completed your assignment by the due date, you should submit the work you have done for partial credit. No work will be accepted once the graded work has been returned or the solution has been disclosed to the class, except for unusual circumstances which the instructor feels reasonable. Note that any kind of hardware or software failure or machine
unavailability in the lab does not merit an extension on the assignment. Diskettes upon which major examinations, assignments, projects or papers submitted may be retained by the instructor as a permanent record of the student's work.

**Grading Error:** All questions concerning a test score or grading of a returned test or assignment must be resolved within one week. It is always a good idea to keep all of your work until the end of the semester. In case of any recording errors or doubts, you may produce them for correction or verification.

**Extra Credit:** There is no EXTRA CREDIT

**Academic Honesty Policy:** You are expected to avoid all forms of academic dishonesty as defined in Catalog. In addition, students are expected to behave in an ethical manner in all class activities. If you feel uncertain about a particular activity, please speak to me BEFORE problems arise. Ethical behavior is a requirement for passing this course. All work submitted for grading must be the student's own work. Plagiarism will result in a score of 0 (zero) for the work or dismissal from the course and the Dean of Students office will be notified. No copying from another student's work, of any class, is allowed. It is the student's duty to allow no one to copy his or her work. Anyone found cheating and/or copying, in the exams or assignments, in the instructor's opinion, will receive an automatic F for the course.

**Collaboration:** There is no collaboration allowed on homework assignments.

**Attendance:** You must attend all classes. While in class attendance will not directly affect the grade, you are responsible for any materials covered or handed out or announcements made for the tests and assignments in your absence. Records of your attendance will be maintained and reported to the university. Students found missing classes without the instructor's permission will be automatically withdrawn from the course.

**Absence from class:** Students are responsible for all materials covered in class and assigned. Should a student be absent from class, it is his/her responsibility to get the notes, etc. for that missed class. More important, should there be assignments, it is the student responsibility to obtain such assignments. No excuse will be accepted for assignments not turned in because the student was absent when it was due.

**Cell Phone Use:** Cell phones and pagers must be turned off during class. First violation receives a warning. All succeeding violations result in a ten points deduction on the last exam. Any violation during a quiz or exam results in a ten percent deduction off the corresponding paper. No warnings for quizzes or exams.

**Laptop Use:** Laptops, Tablets cannot be used in the class.

**Food in Class:** No food in the class or labs.

**Student Security Statement:** Please read the [Student Security Statement](#).
K. COLLEGE AND UNIVERSITY POLICIES

• Academic Integrity (University)
  University students are expected to conduct themselves in accordance with the
  highest standards of academic honesty. Academic misconduct for which a student is
  subject to penalty includes all forms of cheating, such as illicit possession of
  examinations or examination materials, falsification, forgery, complicity or
  plagiarism. (Plagiarism is the presentation of the work of another as one’s own
  work.) In this class, academic misconduct or complicity in an act of academic
  misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each
  individual respect the needs of others to study and learn in a peaceful atmosphere. Under
  Article III of the Student Code of Conduct, classroom behavior that interferes with either
  (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit
  from the instructional program may be considered a breach of the peace and is subject to
  disciplinary sanction outlined in article VII of the Student Code of Conduct. Students
  engaging in unacceptable behavior may be instructed to leave the classroom. This
  prohibition applies to all instructional forums, including classrooms, electronic
  classrooms, labs, discussion groups, field trips, etc.

• Statement of Civility
  Texas A&M University-Corpus Christi has a diverse student population that represents
  the population of the state. Our goal is to provide you with a high quality educational
  experience that is free from repression. You are responsible for following the rules of the
  University, city, state and federal government. We expect that you will behave in a
  manner that is dignified, respectful and courteous to all people, regardless of sex,
  ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that
  infringe on the rights of another individual will not be tolerated.

• Deadline for Dropping a Course with a Grade of W (University)
  The grade of W will be assigned to any student officially dropping a course. Please
  consult with the instructor before you decide to drop to be sure it is the best thing to
  do. Just stopping attendance and participation WILL NOT automatically result in
  your being dropped from the class. Should dropping the course be the best course of
  action, visit the Office of the University Registrar for the Course Drop Form that
  must submitted. No student is eligible to receive a W without completing the official
  drop process by this deadline. Please consult the Academic Calendar
  (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

• Grade Appeals (College of Science and Engineering)
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a
  student who believes that he or she has not been held to appropriate academic standards
as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

  If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

  http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**L. OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the
department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

GENERAL DISCLAIMER
I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.