CS4613: Mobile Application Development

Spring 2020 – CRN 12128
MWF 11:00 pm – 11:50 pm
CSM 203

ARKANSAS STATE UNIVERSITY

INSTRUCTOR: Dr. Jake A. Qualls
OFFICE: ABI 205
OFFICE HOURS: MW 10:00 am – 11:00 am, TR 09:00 am – 10:00 am, others by appointment
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STUDENT LEARNING OUTCOMES:

Course-Level Outcomes:

After completion of *CS4143: Java Application Development*, students will have met the following student learning outcomes:

- Students will be able to understand and use Design Patterns from creational, structural and behavioral forms.
- Students will be able to understand, describe and use good User-interface design principles.
- Students will be able to understand and use Java application design principles and tools.
- Students will be able to understand and use Java documentation standards.
- Students will be able to understand and use GUI-based applications API's in Java.
- Students will be able to understand and use advanced features in Java, such as networking and database integration.

Program-Level Outcomes

CS4143: Java Application Development is linked to the following degree-level student learning outcomes for the B.A./B.S. Computer Science degree program:

- Graduates of the B.S./B.A. Computer Science degree program attain the ability to apply knowledge of computing and mathematics appropriate to the discipline.
- Graduates of the B.S./B.A. Computer Science degree program attain the ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- Graduates of the B.S./B.A. Computer Science degree program attain the ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- Graduates of the B.S./B.A. Computer Science degree program attain the ability to function effectively on teams to accomplish a common goal.
- Graduates of the B.S./B.A. Computer Science degree program attain an understanding of professional, ethical, legal, security and social issues and responsibilities.
- Graduates of the B.S./B.A. Computer Science degree program attain the ability to communicate effectively with a range of audiences.
- Graduates of the B.S./B.A. Computer Science degree program attain the ability to analyze the local and global impact of computing on individuals, organizations, and society.
- Graduates of the B.S./B.A. Computer Science degree program attain recognition of the need for and an ability to engage in continuing professional development.
- Graduates of the B.S./B.A. Computer Science degree program attain the ability to use current techniques, skills, and tools necessary for computing practice.

RECOMMENDED MATERIAL:

- *Starting Out with Java: From Control Structures through Data Structures, 3rd ed. (ISBN: 978-0134038179), by Gaddis, Tony. Addison Wesley*
- *Android Studio, https://developer.android.com*

COURSE POLICIES:

ATTENDANCE: Adherence to the departmental attendance policy is expected. The absence policy takes into account doctor's appointments, illness and unforeseen emergencies – there are no excused absences for these reasons. University-sponsored events are excused with proper documentation. Please provide documentation at the start of the semester. If you have extenuating circumstances, please consult with me immediately. You are allowed up to six non-excused absences without penalty — **each additional absence will result in a 2.5 % deduction from your final grade (up to 10%, or one letter-grade).** At the discretion of the instructor, repeated tardiness and early departures will be recorded as an absence.

BEHAVIOR: Use common courtesy. Disruptive behavior will result in a student being asked to leave class and will count as an absence. Cell phones are not to be used during class, including texting.

STUDENTS WITH DISABILITIES:

Students who require academic adjustments in the classroom due to a disability must first register with ASU Disability Services. Please contact the instructor to discuss appropriate academic accommodations. Arrangements can then be made to ensure equal access to this course.

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IMPORTANT DATES:

- January 20 (*M*) — MLK Jr. Day (No Class)
- **February 14 (F)** — **Create@State Abstract due**
- **February 21 (F)** — **Create@State Submission due**
- February 25 (T) – March 2 (M) — Midterm exams
- March 5 (R) — Midterm grades due
- March 23 (M) – March 27 (F) — Spring Break
- April 15 (W) — Last day to drop individual courses or withdraw from the University
- **April 20-22 (M,T,W)** — **Create@State**
- May 4 (M) — Last day of classes
- May 5 (T) — Study Day
- May 6 (W) – May 12 (T) — Final Exams

GRADES:

Grading will be based on the *quality* of course work, *attendance*, and *meaningful* participation. There will be two exams and one comprehensive final exam. Additionally, homework will be assigned throughout the semester and late homework is ***not*** accepted.

Midterm Exam (Create@State)	**15 %**	90-100	A
Attendance	10 %	80-89	B
Homework	10 %	70-79	C
Project	55 %	60-69	D
Final Exam	10 %	<= 59	F

Cheating and all other forms of academic dishonesty will not be tolerated. In addition to other possible disciplinary sanctions that may be imposed through the regular institutional procedures as a result of academic misconduct, instructors have the authority to assign an "F" to the graded work or to assign an "F" for the course.

PROJECT REQUIREMENTS:

- Report, Manual, Documentation Submission
- Final Project Presentation
  - All teams are required to submit slides
- **Create@State 2020 Submission**
  - **Refer to the 2019 Create@State Program here: http://www.astate.edu/a/ortt/files/Create%20at%20State%202019.pdf**
  - **Familiarize yourself with project titles and descriptions.**
  - **Abstract Submissions due Friday, February 21, 2020 by 5:00pm.**
    - **Submit via the following link: https://astate.inforeadv4.com/#competitionDetail/1791605**
  - **Create@State Symposium is scheduled for April 20 through April 22, 2020.**

SCHEDULE:

Subject to change.

Week	Topic
1	Introduction to Mobile technologies and programming environments
2	Programming languages and tools
3	Mobile Application Design
4	Model-View-Controller and User Interfaces
5	Building Controls 1
6	Building Controls 2
7	Team Project Software Life Cycle
8	Mobile Media
9	Mobile Communication
10	Other Mobile Technologies
11	Mobile Application Deployment
12	Testing and Debugging Mobile Apps
13	Portability Issues
14	Project Presentations