CIS 2610
Business Mobile Programming
Spring 2017

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General Website: http://docrea.org/
Class Google site: https://2610.docrea.org/
eLearning: https://elearning.wmich.edu/
Ryver: https://ryver.docrea.org/
Facebook: https://www.facebook.com/docrea/
Google+: http://google.docrea.org/
Twitter: https://twitter.com/docrea/
Code Repo (intranet): http://code.docrea.org/

BBA Learning Goals and Objectives

CIS 2610 is directly related to your ability to meet four (4) of the seven (7) goals for undergraduate students receiving a degree from the Haworth College of Business:

1. **Students will be effective communicators**
2. Students will have effective team skills
3. Students will acquire global business understanding
4. **Students will understand information technology systems**
5. **Students will understand ethical business practices**
6. **Students will be critical thinkers**
7. Students will have common business knowledge

Course Theme

Development of mobile business applications using various development techniques and object-oriented programming technologies.

Prerequisites

CIS 1020/1100 (or equivalent), BCM 1420/ENGL 1050 (or equivalent), and instructor's permission for BBA degree candidates other than CIS, TIM, EBM majors, or eBizD minors.

Course Description

CIS 2610 introduces the fundamental concepts and implementations of a modern visual programming language in a mobile business environment. Major topics include general programming tools for business applications, fundamentals of business programming such as data types, expressions, and operators, etc., and basic programming structures of business applications. All of these topics will be covered within the context of the Android environment.

Course Approach

The Android programming environment (Java and XML) used in this class will introduce students to the basic concepts and functionality of a robust object-oriented programming language. The course will also help students master the basic knowledge and skills needed to implement mobile solutions expected for architectures and standards in the business environment.

About one-half of the class time will be spent in lecture and discussion. All remaining time will be spent in the Computer Classroom devoted to the "hands-on" application of programming labs and exercises designed to explore various approaches, concepts, and techniques.

Course Objectives

After taking this course, students will be able to:

1. Understand programming logic and design.
2. Understand the basics of object-oriented programming, such as variable naming, data types, control structures, scope, and program flow.
3. Understand how to design, create, implement, and maintain Android business applications.

Required Materials

1. **Hoisington (2016). Android Boot Camp, 3rd Edition**
   https://www.vitalsource.com/products/android-boot-camp-for-developers-using-java-a-corinne-hoisington-v9781337027670
   (Print ISBN: 9781305857995)
2. **https://2610.docrea.org/** (Must be signed in via WMU Google Account)
3. A form of media storage (e.g., USB Flash Drive)
4. Access to your WMU Google Apps Drive and Sites
5. Access your SAMBA/Shared drive in the WMU labs
6. Access to a computer with Internet access
7. Access to newest versions of Chrome, Firefox, and IE
8. Access to approved development tools and environment (in CIS lab and free to download)
   a. **Java:** http://www.oracle.com/technetwork/java/javase/downloads/index.html
   b. **Android Studio:** https://developer.android.com/studio/index.html
   c. **Install Guide:** https://sites.google.com/a/wmich.edu/cis2610/videos
9. Access to eLearning https://elearning.wmich.edu/ for various items, such as discussions, points, lab assignments, forays, and exams.
10. Supplemental Materials, such as Websites and Free/Open Source software (available on the course resource page)

Google Apps

WMU has implemented Google Apps for Education across the university. Everyone will have access to docs, Hangouts, and many other services except for email: http://www.wmich.edu/google/availableapps/

We will use as many of the apps that are relevant for the course such as presentations, docs, Hangouts, as well as various other Web apps that provide Google OAuth for access.

We will discuss this in more detail during the course, but for now realize that Google Apps will be used for various exercises, labs, and other assignments. **Most importantly, all lecture slides and sample videos will require you to log in via your WMU Google Apps for Education account.**

Make sure to check out WMU Google Apps for Education site as it include apps, FAQs, etc.: http://www.wmich.edu/google/

Course Endeavors

A Little about the Course

Smartphone and tablet sales have skyrocketed. Most industry analysts have noted at least a 30% increase in adoptions with factors such as falling acquisition costs fueled by Android devices. In addition, retailers and other businesses routinely use mobile commerce strategies from pervasive Quick Response (QR) codes, to price check apps, to location-aware targeted marketing, and near field communication (NFC) for payments.

The mobile marketplace for app developers is keeping pace as well with consumers and businesses looking for means to utilize powerful personalized smartphones for entertainment, shopping, and various forms of information management (e.g., address book) and information access (e.g., news and sports).

Many compare the mobile transformation to the influx of the Internet. No longer are people limited to a tethered computer; instead all information in available right within their pocket. Consider the paradigm shift that will happen as more people begin to implement and use the Internet of Things (https://cloud.google.com/solutions/iot/).

In this course, we will focus on meeting information and business needs with the Android programming environment. Using XML and Java we can create applications to meet the ever-growing demands of both business and personal mobile computing.

In this course we will also spend a good deal of time studying programming logic, structures, and concepts. You'll find that this information applies to any programming challenge no matter what the language.

Labs (500 points)

We will complete **five (5)** programming labs throughout the semester. Lab assignments and due dates will be posted in eLearning.

Exams (400 points)

There will be two (2) exams: A midterm and a final.

The final exam will be comprehensive.

We will discuss the exams in greater detail in class.

Knowledge Forays and Exercises (100 points)

Throughout the semester, brief unplanned knowledge forays and exercises will be planned to measure your skill and knowledge base. You must be present to partake of them.

These cannot be made up in any case (even a pre-excused absence), but more than the allotted number will be given so you can make the 100 points. **If you are present and do well on all of them, any amount over the 100 points will be considered extra credit.**

Extra Credit

Please see the Knowledge Forays and Exercises section.

General Information

Assignments

Unless otherwise noted, all work needs to be your own. This is not to say you cannot ask questions, discuss concepts, etc. with one another in person and on the discussion board (in fact it's encouraged), but the final product must be your own work.

Students are also expected to have read the assigned materials before the class meeting.

Due Dates

Labs

Due dates are firm. All labs are due on the due date and time. This allows for fair grading and equal treatment for all students in the course.

Because life itself is an uncertain proposition, you might have some difficulty during the semester. Therefore, you will be allowed **ONE** (1) late lab. This lab can be turned in 3 days after the due date. (Some restrictions apply.)

You do not need to use the "late," but no additional points are awarded for "no lates."

This offer will be available to you only **ONE (1) time** during the semester and I encourage you to save it for an emergency situation. System failure, no backup disk, computer viruses, being too busy, and other such excuses are not acceptable. As in the real world, you are responsible to make sure you are prepared. Please inform me **via email that you have taken your ONE within 24 hours AFTER the due date and time.**

Knowledge Forays and Exercises

Knowledge forays and exercises cannot be made up in any situation (even pre-excused absences), but more than the allotted number of points will be offered during the semester. (See above under Course Endeavors)

Exams

You are required to take the exams on the assigned days and times. Please check the course calendar on eLearning for this information.

Missed exams may only be handled with a documented excuse. A documented excuse consists of letterhead from a medical doctor. This letter must include the statement "I have advised the student to stay home on the following dates: [DATES], for medical reasons." Other documentation will not be considered. Documentation not on letterhead will not be considered. Documentation that does not contain the statement above will not be considered.

If you must miss an exam due to university-sponsored event or legal mandate, documentation to this effect must be presented IN ADVANCE of the exam date. Anyone who has not received a WRITTEN (email) notice from me concerning missing an exam in advance will not be allowed to receive credit for that exam.

Scheduled Work

This class requires you to work on numerous labs and other assignments throughout the semester. To be successful, it is important for you to keep up with the schedule and check it frequently. While the instructor reserves the right to make changes as the semester progresses, we will always discuss and agree to major changes in the schedule.

Amount of Work

This class will place great demands on your time **OUTSIDE OF CLASS**. You will need to be able to access a computer system and have time in your schedule for labs and completing other assignments. This is all in addition to completing the readings and making sure that you understand and can apply concepts and theories. For example, depending on the lab and your skill level, some labs might take up to 25 total hours to complete.

The teaching assistant has set hours and I encourage you to use them. He is also available on Ryver and may hold special sessions to help with particularly difficult labs.

Turning in Work

Electronic nature of our work: All of our class work is digital in nature. Resisting the temptation to "change one last item" after a deadline has passed will be paramount to your success. If you change an item (no matter how small) after the due date and time AND before you receive your evaluation, it's considered late.

DO YOUR OWN WORK. Do not work on an entire assignment step-by-step with other students (unless directed by the instructor). Identical errors or copying in any work will result in a grade of zero for all involved parties.

DO NOT COPY CODE. Anyone found copying code will receive an automatic zero for the work no matter how small the copying instance. Continued copying will result in harsher penalties. (See Academic Integrity.)

Finally, all students are treated equally and fairly. **There will be no make-up work or extra projects for any individual student.**

Attendance

Sessions are premised on your presence. Class sessions include information far beyond that found in the texts. Therefore, I expect you to: 1) attend class, 2) read the assignments prior to each class session, 3) prepare for knowledge forays, and 4) complete all required work. Missing any of these items will have an impact on your learning and ultimately your grade.

To ensure a positive learning experience and your productivity in this course, you are expected to show up on time at each class meeting throughout the entire semester. **No matter whether your excuses are legitimate or not, the maximum absences permitted in the semester is four (4).**

If you have **more than four (4) absences** (based on the collected data) in this class, **your grade will automatically be an "E."** Except emergencies, any class absence due to critical reasons must be pre-approved by the instructor at least 24 hours in advance. Such approval may be easily obtained by sending an email to the instructor. If necessary, you will need to prove the legitimacy of your absence.

In addition, if you come to class ten (10) or more minutes after the class start time, you will be considered "late," and if you leave the class ten (10) or more minutes before the class ending time (or dismissal), you will be considered "truant." **Two counts of tardy/truant will be treated as one "absence."**

Remember, if you miss a class you are still responsible for any material and class work that you miss. I encourage each of you to form class contacts to learn of items missed. Please do not e-mail me or come to office hours expecting to learn of everything we covered in a class you missed.

Ultimately, the class needs you here, and you need to be here. There is no way to duplicate class instruction and discussion. Missing classes can result in serious problems that show up in your assignments. Finally, although there are no guarantees, we will have fun every once in a while (believe it or not).

Participation

To participate, you must be present and pay attention to the class task or discussion. Class comments are assessed on quality, not quantity, to a point.

Communication Devices

In today's wired world, most of us are connected to information and communication systems on a 24/7 basis. In class, we need to disconnect in order to focus on our work. Because of this, all phones and other communication devices should be either muted (e.g., set on vibrate) or turned off. Under no circumstances should you answer a device--**this includes text messages**--in the classroom or computer lab while class is in session.

If your mobile phone does ring, I reserve the right to answer it.

Images and Video

During lectures, discussions, and other class activities, there will be times when you are welcome to take photos of code with your mobile device or computer. I will always inform the class when this practice is permitted and when it is not ***(e.g., lecture examples [almost always permitted] versus lab code [never permitted])***.

In most cases, I will also minimize the instructor screen window so you can simultaneously follow examples, take screenshots, and make notes on your computer as well.

As long as everyone follows the guidelines this practice will be permitted. Infractions will result in this privilege being discontinued for the semester.

No videos are permitted in the classroom.

Professional Written and Oral Communication Standards Guideline

Effective communication skills are critical to Haworth College of Business students' personal and professional success. In accordance with the College's learning goal that students must be effective communicators, business students must practice professional standards in written and oral communications. Students' assignments, therefore, must meet minimum standards to be acceptable. Standards for written work address errors in form including spelling, punctuation, format, and basic grammar, as well as technical English errors. Standards for oral work include professionalism in demeanor and dress, presentation delivery skills, quality of graphic support, and the above standards for written work. If these standards are not adhered to, the student's grade may be adjusted accordingly. Students are encouraged to seek assistance through the Haworth College of Business Communication Center.

Respect and Intellectual Freedom

Many opportunities for debate and discussion abound in this course. You also will have many opportunities to work with classmates who espouse different views and opinions. While we can always discuss ideas and issues openly, we must also respect one another as human beings.

Responsibility

You are responsible for your individual work in this class. This includes doing the work and maintaining standards of academic integrity.

Academic Integrity

You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate Catalog http://catalog.wmich.edu/ that pertain to Academic Integrity.

These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct http://www.wmich.edu/conduct/. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing.

You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

In particular for this class, please note the University's policy on computer misuse http://www.wmich.edu/it/policies/: "Computer misuse is disruptive or illegal use of computer resources." **The instructor may pursue any evidence of computer misuse.**

Other Important Policies

- **Civility:** http://wmich.edu/sites/default/files/attachments/u370/2016/Civility%20Stmt.7-27-16_0.pdf
- **Diversity:** http://wmich.edu/diversity
- **Religious Observance:** http://www.wmich.edu/policies/religious-observances-policy
- **Sexual Assault and Misconduct Policy:** http://www.wmich.edu/sexualmisconduct/
- **Student Disabilities:** http://www.wmich.edu/disabilityservices/

Communication

eLearning and eMail

You are responsible for reading the postings and announcements on eLearning and on your WMU email account. You should also check eLearning for resources, schedule updates, special instructions on assignments, etc. Keeping up to date with that material is almost as important as attending class.

I will also post all announcements to eLearning.

eLearning Discussion Board

Use the discussion board to ask questions concerning the course work, pose ideas about technology, share useful Websites, etc.

I will check the board on a daily basis and answer questions.

Ryver (ryver.docrea.org)

This semester I am using Ryver, an open source alternative to Slack. Ryver allows real-time communication, file sharing, etc. either as an individual or as a group.

You can use Ryver via a web browser, desktop client, or mobile app.

I will send an invitation to your WMU email and add you to the class forum, as well as the general 2610 discussion area.

Please use these two areas to ask general class and code questions. You can also message me, the teaching assistant, and other students for more in-depth code and class questions. **Do send code via Ryver. Screenshots are fine.**

I and the Teaching Assistant will almost always be logged into Ryver this semester.

Email

If you leave email, in most cases you will have a response within 24 hours after I receive the email. Sometimes this response may be to simply set up an appointment if it's something better discussed in person.

Use the subject line to help me identify an email coming from this course. Putting **CIS 2610** at the beginning will help me sort my numerous daily emails and address yours. For example, you might use the following Subject line:

Subject: [CIS 2610] What's a Widget?

Use your WMU email for individual course correspondence other than the discussion board. **I guarantee replies to @wmich.edu**

When sending programming questions make sure to include code in a complete file and screen shots when applicable. Specific questions referencing code lines and programming structures will help me assist you to the fullest.

eLearning Pager and Chat

I am on eLearning messaging at various points throughout the day. Please feel free to contact me if I am available for chat. The system only indicates if a user is online or offline for its status. If I do not immediately reply and am marked as "online," I am most likely away from my system or meeting with someone in my office. Do leave a message as the eLearning system will store them and I will reply when I have a chance.

Facebook and Google Chat

If I am on Facebook or Google chat, please feel free to contact me. Unlike eLearning chat, these systems do allow users to set a status. Please respect status postings (e.g., "busy").

Google Hangouts

I am available for Google hangouts when it is deemed necessary. **Please contact me via chat before requesting a hangout.**

Late night sessions are not an option, but almost any other time is fine for individual and team meetings **via your Google Apps for Education account.**

Voice Mail

If you leave a voice mail message, please provide enough information so that it is easy to understand the purpose of your call. If you wish your call returned, leave your number and the times you can be reached. Voice mail "turn-around" time is not guaranteed, but voice mail will be returned.

Problems

If you find yourself having trouble in this class, you are responsible for talking about the nature of your difficulty while there is still time left to do something about it.

Questions

If you have any questions about this syllabus or other class matters, please feel free to discuss these issues at some mutually agreeable time, or email, or call.

Assignments and Evaluations

You are responsible for keeping track of your assignments and progress in this course. Save all your graded assignments (including email) so that you will have a complete record of your scores. All assignment evaluations will be uploaded into eLearning.

Your grades will be periodically posted on eLearning. You are responsible for checking your grades and **reporting (and proving) any errors in your record within one week of the posting**. You'll be notified via eLearning when points are posted.

You are responsible for knowing what happened in class, including changes in assignments or due dates, regardless of whether you attend.

You are responsible for reading the textbook and Web readings, and for asking questions about material that you don't understand.

Grading

You will be evaluated based on various assignments and exams created throughout the semester to demonstrate not only your understanding of various programming concepts and techniques but also your programming and design proficiency.

Assignments	
Labs	500 points
Forays and Exercises	100 points
MidTerm Exam	150 points
Final Exam	250 points
Total Points	1000 points

Final Grade

Final grades will be based on accumulated points:

Final Point Scale			
A	**940-1000**	**C**	700-759
BA	**880-939**	**DC**	650-699
B	**820-879**	**D**	600-649
CB	**760-819**	**E**	Below 600

Incomplete Policy

This is a temporary grade that the instructor may give to a student when **illness, necessary absence, or other reasons beyond the control of the student** prevent completion of course requirements by the end of the semester or session. This grade may not be given as a substitute for a failing grade.

A grade of "I" must be removed by the instructor who gave it or, in exceptional circumstances, by the department chairperson. If the unfinished work is not completed and the "I" grade removed within one calendar year of the assignment of the "I," the grade shall be converted to an "E" (failure). Students who receive an incomplete grade in a course must not reregister for the course in order to remove the "I."

Computer Lab Etiquette

At the start of a new semester, it's always a good idea to have a brief talk about computer lab etiquette. Below are a few rules that we're all expected to follow - especially in the CIS lab.

Entering after Class Begins

If you are late to class, please enter the computer classroom **from the back door**. Under no circumstances should you walk in the front door once the class begins. It's distracting to the instructor and your fellow students. I will remind you if you forget. Don't make late entrances a habit in any case.

Consuming Food and Beverages

Under no circumstances should food be consumed in the computer classroom. Too often we find food wrappers on the floor and crumbs in the keyboards. If you have a beverage you haven't finished before class, make sure to place it on the floor. If it can be helped, don't bring beverages to class.

Using Personal Systems

Laptops, tablets, and smart phones are more than welcome in the lab.

During lectures and class work, refrain from checking email, surfing the Web (unless it's part of a class exercise), chatting, etc. Not only do you distract yourself but also others.

If you make any of the above activities a habit, you'll be asked to not sit at a system or use a device during specific class sessions.

Using Mobile Phones and Communication Devices

If you must have your mobile phone or communication device on, place it on vibrate. Don't talk or text on a mobile phone during class time. If your mobile phone does ring, I reserve the right to answer your phone. Phone camera policy, discussed in the syllabus, applies here as well.

If you are expecting an important phone call (e.g., job offer), please take the call outside of the classroom.

Respecting the Workspace

We all share this workspace. Please respect that this is a working environment and not your own personal area. Keep feet on the floor--not on chairs--and clean up after yourself when you leave.

Partaking of Other Work

We'll have plenty to keep us busy during class. However, if you are allotted class time for course work and have finished all pending assignments (to include labs), feel free to work on other class assignments as long as they do not disturb the work of others.