

Course Syllabus

Jump to Today



ISMG 4200: Building Business Applications

Fall 2015

Instructor: Dr. Dawn Gregg

Office Location: 1475 Lawrence Street - Office 6000D

Office Phone: (303) 315-8000

Office Hours: 4:45 PM - 5:15 PM Tues - Thurs. BUSB 2501

Email: dawn.gregg@ucdenver.edu

Home Page: http://dawngregg.com (http://dawngregg.com)

Course Description

Examines how business technologies are designed and implemented. Usability, logic, and platform selection issues are highlighted through the development of simple business systems. Includes mobile interface design; storing, retrieving, and manipulating information; real time decision making; task automation through iteration; platform selection (mobile, desktop or web); and web programming.

This hands-on programming course uses open source software (Apache, PHP, Java and MySQL) to provide the student with a fundamental programming background. Students will develop the skills necessary to create interactive, database-driven web sites and Android mobile apps.

Course Objectives

Objectives of this course are to:

- Learn the basic structure and syntax of the PHP language
- · Use PHP to build interactive Web sites
- · Interface with MySQL databases
- · Handle user input via form processing and URL tokens
- Understand the structure and use of Java for programming for mobile apps
- Understand how to work in the Android Studio environment
- Use Android mobile development tools to create mobile apps
- Create Graphic Resources such as Splash Screens and Icons
- Gain the knowledge necessary for continued, independent development of programming skills

Prerequisites

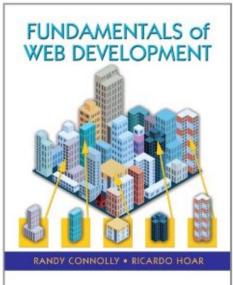
This course requires prior programming and database experience:

ISMG 2800 and 3500 (or equivalent)

Recommended Texts (for those that like a textbook)

Fundamentals of Web Development

Randy Connolly, Ricardo Hoar

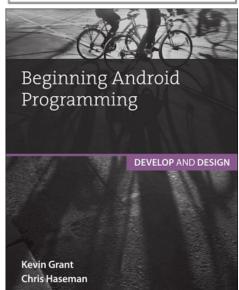


ISBN-10: 0133407152

ISBN-13: 978-0133407150

Addison-Wesley; 1 edition

© 2015



Beginning Android Programming: Develop and Design

Chris Haseman, Kevin Grant

ISBN-13: 978-0321956569

Peachpit Press

© 2014

- PHP Documentation: http://www.php.net/manual/en/langref.php) (http://www.php.net/manual/en/langref.php)
- Android Developer Resources (http://developer.android.com (http://developer.android.com)
- Android Tutorial (http://www.vogella.com/tutorials/Android/article.html)
- In addition, there are lecture notes and videos available on the course module pages.

Development Tools

- XAMPP (http://www.apachefriends.org/en/xampp.html) a bundle includes bundle of Apache, MySQL and PHP.
- Eclipse Integrated Development Environment (IDE), with PHP development tools
 (http://www.eclipse.org/pdt/downloads (http://www.eclipse.org/pdt/downloads)
- Android Studio Mobile Development Environment (http://developer.android.com/sdk/)

Computer Lab

• You can use tools in the computer lab in BUSB 2403.

Course Policies

Work Completion Policy

You should expect to spend between 8-12 hours per week on this course. This is an average time which includes the time you will need to complete the readings, videos, exercises, homework, quizzes and discussions that week. Do not expect to succeed in this course if you do not allocate minimum of 8-12 hours a week for this class!

I do not accept Assignments or tutorials late. There may be group/class discussions or solutions posted regarding the assignments immediately after they are due and thus it is imperative that work be complete ON TIME. You will lose 1% of the available points on an assignment or a tutorial for every minute it is late. Any assignment more than 1 hour and 40 minutes late will receive 0 points. It is your responsibility to have a working internet connection at the time of assignment submission.

Note: I do drop your lowest tutorial and and your lowest assignment grade at the end of the term.

Academic Honesty

All tutorials, assignments, and tests are to be done individually unless otherwise specified. All work submitted should include citations or other indications when others' work is included with your own. *Academic Dishonesty is not tolerated* and will result in minimum of a zero on the assignment / a one letter grade reduction in the course and reporting of the incident to the Business School's Internal Affairs Committee. The following are considered Academic Dishonesty:

- Copying the work of current or past ISMG 4200 students.
- Plagiarism of material found in books, magazines or on the Web.
- · Work purchased from "paper mills" or a code writing service.
- Allowing anyone else to log into the course using your log in credentials and access materials on your behalf.
- · Working collaboratively on individual assignments except to provide debugging/editing assistance.
- Providing assignment solutions (total or partial) to any other ISMG 4200 student.

Cheating on an exam will result in an automatic *F* for the course! The penalty for subsequent academic dishonesty incidents can involve removal from the IS program and/or from CU Denver.

The instructor may make use of anti-cheating services to ensure that submitted work is original.

Finally, cheating diminishes the value of your learning. If you find yourself struggling in this course, please contact the instructor!

Contacting Me

My office hours are posted at the top of this Syllabus. I am also available on other days and times either in my office, phone or online all you need to do is contact me and find a time we can meet.

My courses can be difficult and often students get to places in their assignments where they do not know what to do next. I encourage you to ask questions in class, office hours and via email. Always include the course number (ISMG 4200) and your name in the email.

When asking a question via email please do the following:

- Clearly give me a specific guestion.
- If you have an error message(s) you do not understand put a copy of the error message(s) in the email and attach your code so I can see where it occurs.
- If your code compiles but runs strangely describe the behavior and attach your code (e.g. I input the id and then nothing happens)
- If you do not understand what is expected explain what parts of the assignment you do not understand.
- If you are having difficulty deciding how to approach a problem describe to me what you think you should be doing and I will let you know what you have right & where you might be wrong.
- DO NOT email me and say here is what I have so far what do I do next.

As a general policy, I will respond to phone calls and emails within 24 hours. Typically, I can respond to emails

within one to two hours during regular business hours and 4 to 5 hours during off hours. Face-to-face meetings can be scheduled by calling or emailing.

Course Design

Flipped Classroom

This semester, we are going to be learning in a "Flipped Classroom" model.

In the flipped classroom, I have recorded my lectures on video or found lectures recorded by other faculty that cover the weekly course topics and posted them in canvas.

- **Before Tuesday's class:** You will need to *watch all the video lectures* for the week, take notes and complete the *weekly quiz*. This will take you up to an hour and a half for each week's lecture. (although the videos are usually broken up into shorter segments).
- **Before Thursday's class**: You will need to complete any tutorials for the week (either from the book or available online). These will have a hard due date in Canvas
- · In class:
 - I will answer questions and we will begin the programming tasks together.
 - We will plan to get most of the programs set up during class, and then you can finish them.
 - Also, in class, I will work through the prior week's assignment (as needed) and answer questions on issues that came up.
- Assignments will be due by noon Monday the following week or in two weeks (depending on the assignment).
- If you are having difficulty understanding a topic, I have provided extra materials at the bottom of many topics that you can review to help you understand the concepts before moving on.

Assignments & Exams

Learning to develop websites and write programs that run on the web involves doing. Students cannot just listen to a lecture and know how to create a website. The course includes numerous short exercises and longer assignments that give students practice solving realistic business problems. These are graded and returned as soon as possible so students know how they are doing in my class.

- Quizzes: Following my lectures and the readings students should complete the online quiz. This will give them
 the opportunity to assess the skills discussed in the lectures and readings. The quizzes may be taken as many
 times as you want but must be completed before Tuesday's class.
- *Tutorials*: Following my lectures and the readings most weeks will have a tutorial. This will give them the opportunity to use the skills discussed that week.
- In Class Exercises: We will have in-class exercises during many class sessions. These exercises will be impromptu and will only be able to be completed in class.
- Note: There is a maximum number of points a student can earn for the quizzes, tutorials and in class exercises
 (200). The total number of points available to earn on these activities will exceed the possible number of points so it will be possible to miss multiple quizzes, tutorials and in class assignments and still get all of the available
 points. The highest 25 scores will be kept (25*8=200).
- Assignments: You will complete a short homework assignment most weeks. Some weeks you will have larger
 assignment (worth more points) that you will have 2 -3 weeks to complete. These assignments are largely coding
 assignments which allow students to be comfortable with creating and debugging PHP and Java Android code. It
 is important for students to try and hand in every homework assignment even if it does not work 100% correctly!
 - Compliance: Assignments will be evaluated to determine whether the submission meets all of the
 requirements set forth in the assignment. That is did the student implement a program that provides all of
 the information (or design elements) it needs to incorporate?
 - Quality: Consists of several factors including:
 - Format: For Web programming courses format includes the layout and design of the visible Web page as well as the lay-out and formatting of the hidden HTML and embedded code (include comments!).

- Modularity in Design: Avoid accomplishing too many tasks in one function/on one Web page.
- Design Quality: The design chosen should be clear and concise. Is the solution chosen excellent, better than average, average or worse than other ways of approaching the given problem?
- Performance: A good Web program needs to run and produce the correct output. A design that does not run
 will receive a zero for program performance.
- Note: I will drop your lowest (40 point) assignment grade at the end of the term; however, as most
 assignments build on each other it will be important to do each weeks assignment so that you have the
 foundation to do the assignment for the next week.
- *Exams*: There will be one midterm exam and one final exam. The exams will be given only on the scheduled dates. Question Formats may include: multiple choice and multiple answer.
- Failure to complete your exam during the scheduled time will result in a zero for the examination. In cases of extremely extenuating circumstances (i.e. documented circumstances clearly beyond the student's control) a make-up exam may be given. However, the student must request the make-up exam in writing within 24 hours of the original exam date.

If you know in advance that you will not be able to attend an exam because of extenuating circumstances beyond your control you may request a make-up exam. Requests for make-up exams must be made in writing at least 1 full week prior to the class section in which the exam is scheduled to be given. If the request for a make-up exam is approved, a make-up exam will then be scheduled.

24 hours prior to a scheduled make-up exam, it is the student's responsibility to confirm via email that they still plan on attending the make-up exam at the given date and time. If the student no longer needs to take a make-up exam - the student must cancel the make-up exam via email 24 hours in advance of the scheduled make-up exam time. Failure to attend a make-up exam will result in a 0 for the exam.

Assignment Submission

Unless otherwise stated, students will be required to turn in tutorials and assignments using the Assignment link in Canvas. Each assignment will need to be submitted under the correct assignment link for the assignment being submitted. You also need to include your name inside every file. This will be considered your signature for originality of work turned-in for grading.

Assessment Design

We will use multiple grading measures to give you opportunities to do well in the course. Final Grades for this class will be based on your performance on weekly tutorials, homework assignments, two midterms and a final exam. Weightings will be applied as follows:

| A: Tutorials/In Class Exercises | 20% |
|---------------------------------|-----|
| B: Assignments | 40% |
| C: Fxams | 40% |

Students can view their current grade inside side the course gradebook (see menu above).

Letter Grades are typically assigned as follows:

| Α | (4.0) | 93% - 100% | superior/excellent |
|----|-------|---------------|--------------------------|
| A- | (3.7) | 90% - 92.999% | |
| B+ | (3.3) | 87% - 89.999% | |
| В | (3.0) | 83% - 86.999% | good/better than average |
| B- | (2.7) | 80% - 82.999% | |
| C+ | (2.3) | 77% - 79.999% | |

| С | (2.0) | 73% - 76.999% | competent/average |
|----|-------|---------------|-------------------|
| C- | (1.7) | 70% - 72.999% | |
| D+ | (1.3) | 67% - 69.999% | |
| D | (1.0) | 63% - 66.999% | minimum passing |
| D- | (0.7) | 60% - 62.999% | |
| F | (0.0) | 0% - 59.999% | failing |

Note: Grading policies of the CU Denver Business School state that the average GPA across all students in an undergraduate class should generally fall within the following range: 2.3 (C+) to 3.0 (B) on a 4.0 scale. Therefore, if necessary, the ranges above will be modified so the average GPA across all students in the class falls with in the recommended range.

Student Success

Be Prepared: It is assumed that you will read the assigned chapters each week and you should allow plenty of time for experimenting and practicing web design.

Email: My courses can be difficult and often students get to places in their assignments where they need assistance. I encourage you to ask questions in class, office hours and via email. Always include the course number (ISMG 4200) and your name in the email. When asking a question via email please give me a specific question and attach your html code so I can see your problems for myself.

Student Conduct Code

As members of the University community, students are expected to uphold university standards, which include abiding by state civil and criminal laws and all University policies and standards of conduct. Every student should review the Student Code of Conduct (http://www.ucdenver.edu/life/services/standards/Documents/CUDenver-Code of Conduct.pdf).

Students with Disabilities

"The University of Colorado Denver is committed to providing reasonable accommodation and access to programs and services to persons with disabilities. Students with disabilities who want academic accommodations must register with Disability Resources and Services (DRS), North Classroom 2514, phone: 303 556-3450, TTY: 303 556-4766. I will be happy to provide approved accommodations, once you provide me with a copy of DRS's letter."

[DRS requires students to provide current and adequate documentation of their disabilities. Once a student has registered with DRS, DRS will review the documentation and assess the student's request for academic accommodations in light of the documentation. DRS will then provide the student with a letter indicating which academic accommodations have been approved.]

Course Schedule

| Date | Details | |
|------------------|--|---------|
| Thu Aug 20, 2015 | In Class Exercise 1 (https://ucdenver.instructure.com/courses/323461/assignments/208158) | 5pm |
| Fri Aug 21, 2015 | Self Check 1 (https://ucdenver.instructure.com/courses/323461/assignments/208137) | 11:59pm |

| Tue Aug 25, 2015 | Introducing PHP: Tutorial (Code Academy) (https://ucdenver.instructure.com/courses/323461/assignments/208149) | |
|------------------|--|---------|
| | Self Check 2 (https://ucdenver.instructure.com/courses/323461/assignments/208131) | 3:29pm |
| | In Class Exercise 2 (https://ucdenver.instructure.com/courses/323461/assignments/208159) | 5pm |
| Thu Aug 27, 2015 | Conditional Statements, Loops and Functions: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208150) | 3:29pm |
| Mon Aug 31, 2015 | Introducing PHP: Assignment (https://ucdenver.instructure.com/courses/323461/assignments/208151) | 11:59pm |
| Tue Sep 1, 2015 | Self Check 3 (https://ucdenver.instructure.com/courses/323461/assignments/208134) | 3:29pm |
| | In Class Exercise 3 (https://ucdenver.instructure.com/courses/323461/assignments/208160) | 4:59pm |
| Thu Sep 3, 2015 | Arrays & Foreach: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208156) | 3:29pm |
| Mon Sep 7, 2015 | Files & Arrays: Assignment (https://ucdenver.instructure.com/courses/323461/assignments/208152) | 11:59pm |
| Tue Sep 8, 2015 | Self Check 4 (https://ucdenver.instructure.com/courses/323461/assignments/208141) | 3:29pm |
| | In Class Exercise 4 (https://ucdenver.instructure.com/courses/323461/assignments/208161) | 4:59pm |
| Thu Sep 10, 2015 | OOP: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208157) | 3:29pm |
| Mon Sep 14, 2015 | <u>Database Driven Web Sites: Assignment Part A</u> (https://ucdenver.instructure.com/courses/323461/assignments/208153) | 11:59pm |
| Tue Sep 15, 2015 | Self Check 5 (https://ucdenver.instructure.com/courses/323461/assignments/208136) | 3:29pm |
| | In Class Exercise 5 (https://ucdenver.instructure.com/courses/323461/assignments/208162) | 5pm |
| Mon Sep 21, 2015 | <u>Database Driven Websites: Assignment Part B</u> (https://ucdenver.instructure.com/courses/323461/assignments/208154) | 11:59pm |
| Tue Sep 22, 2015 | Self Check 6 (https://ucdenver.instructure.com/courses/323461/assignments/208135) | 3:29pm |
| | In Class Exercise 6 (https://ucdenver.instructure.com/courses/323461/assignments/208163) | 5pm |
| Mon Sep 28, 2015 | Database Driven Websites: Assignment Part C (https://ucdenver.instructure.com/courses/323461/assignments/208182) | 11:59pm |

| Tue Sep 29, 2015 | Self Check 7 (https://ucdenver.instructure.com/courses/323461/assignments/208138) | 3:29pm |
|------------------|---|---------|
| | In Class Exercise 7 (https://ucdenver.instructure.com/courses/323461/assignments/208169) | 3:30pm |
| Tue Oct 6, 2015 | Midterm Exam (https://ucdenver.instructure.com/courses/323461/assignments/208142) | 5pm |
| Mon Oct 12, 2015 | Sessions & JSON: Assignment (https://ucdenver.instructure.com/courses/323461/assignments/208155) | 11:59pm |
| Tue Oct 13, 2015 | Self Check 9 (https://ucdenver.instructure.com/courses/323461/assignments/208132) | 3:29pm |
| | In Class Exercise 9 (https://ucdenver.instructure.com/courses/323461/assignments/208164) | 5pm |
| Thu Oct 15, 2015 | <u>Understanding Java: Tutorial</u> (https://ucdenver.instructure.com/courses/323461/assignments/208173) | 3:39pm |
| Mon Oct 19, 2015 | Understanding Java: Assignment (https://ucdenver.instructure.com/courses/323461/assignments/208179) | 11:59pm |
| Tuo Oct 20, 2045 | Self Check 10 (https://ucdenver.instructure.com/courses/323461/assignments/208144) | 3:29pm |
| Tue Oct 20, 2015 | In Class Exercise 10 (https://ucdenver.instructure.com/courses/323461/assignments/208166) | 5pm |
| Thu Oct 22, 2015 | Creating your First App: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208180) | 3:29pm |
| Mon Oct 26, 2015 | Mobile Development/Design: Assignment (https://ucdenver.instructure.com/courses/323461/assignments/208147) | 11:59pm |
| Tue Oct 27, 2015 | Self Check 11 (https://ucdenver.instructure.com/courses/323461/assignments/208145) | 3:29pm |
| | In Class Exercise 11 (https://ucdenver.instructure.com/courses/323461/assignments/208165) | 5pm |
| Thu Oct 29, 2015 | Simple UI: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208172) | 3:29pm |
| Mon Nov 2, 2015 | Building Your UI: Assignment Part A (https://ucdenver.instructure.com/courses/323461/assignments/208174) | 11:59pm |
| Tue Nov 3, 2015 | Self Check 12 (https://ucdenver.instructure.com/courses/323461/assignments/208143) | 3:29pm |
| | In Class Exercise 12 (https://ucdenver.instructure.com/courses/323461/assignments/208167) | 5pm |
| Thu Nov 5, 2015 | Intents: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208171) | 3:29pm |

| Mon Nov 9, 2015 | Building Your UI: Assignment Part B (https://ucdenver.instructure.com/courses/323461/assignments/208181) | 11:59pm |
|------------------|---|---------|
| Tue Nov 10, 2015 | Self Check 13 (https://ucdenver.instructure.com/courses/323461/assignments/208146) | 3:29pm |
| | In Class Exercise 13 (https://ucdenver.instructure.com/courses/323461/assignments/208177) | 5pm |
| Thu Nov 12, 2015 | Connecting to the Network: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208148) | 3:29pm |
| Mon Nov 16, 2015 | Building your Data Driven App: Assignment Part A (https://ucdenver.instructure.com/courses/323461/assignments/208175) | 11:59pm |
| Tue Nov 17, 2015 | Self Check 14 (https://ucdenver.instructure.com/courses/323461/assignments/208139) | 3:29pm |
| | In Class Exercise 14 (https://ucdenver.instructure.com/courses/323461/assignments/208168) | 5pm |
| Thu Nov 19, 2015 | ContentProvider: Tutorial (https://ucdenver.instructure.com/courses/323461/assignments/208176) | 3:29pm |
| Tue Dec 1, 2015 | Self Check 15 (https://ucdenver.instructure.com/courses/323461/assignments/208133) | 3:29pm |
| | In Class Exercise 15 (https://ucdenver.instructure.com/courses/323461/assignments/208170) | 5pm |
| Fri Dec 4, 2015 | Building your Data Driven App: Assignment Part B (https://ucdenver.instructure.com/courses/323461/assignments/208178) | 11:59pm |
| Thu Dec 10, 2015 | Final Exam (https://ucdenver.instructure.com/courses/323461/assignments/208140) | 4:59pm |