CMPS 312 – Mobile Application Development

Syllabus and Course Admin

Dr. Abdelkarim Erradi

Department of Computer Science & Engineering

Qatar University


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Outline for Today

- Course introduction
- Grading
- Policies

About the Instructor

- **Dr. Abdelkarim Erradi**
  - **Office:** Office 132 Female Engineering Building
  - **Phone:** 4403 4254

Office hours:

- **Sunday 12:15pm to 1:15pm for Female** at my office C07-132
- **Sunday 12:15pm to 1:15pm for Male** at CSE Meeting room
- You can talk to me **after** class if you have issues/questions
- **Best way to contact me is by Email** erradi@qu.edu.qa

Course Goals (1 of 2)

1. Introduce the principles and the technologies to design and develop mobile applications
2. Provide students with the opportunity to design, build and test mobile applications on Android platform
3. Employ state-of-the art application frameworks and development tools to build mobile applications

Course Goals (2 of 2)

- Gain practical hands on experience with mobile technologies
  - Often, the best way to understand something is to build it yourself
  - Labs Activities/Assignments
  - Project: Substantial implementation project to design and implement a mobile Application

  => Put what you learned into use!

=> This course equips you with the **skills** and **best practices** needed to design and develop mobile applications with the required quality attributes

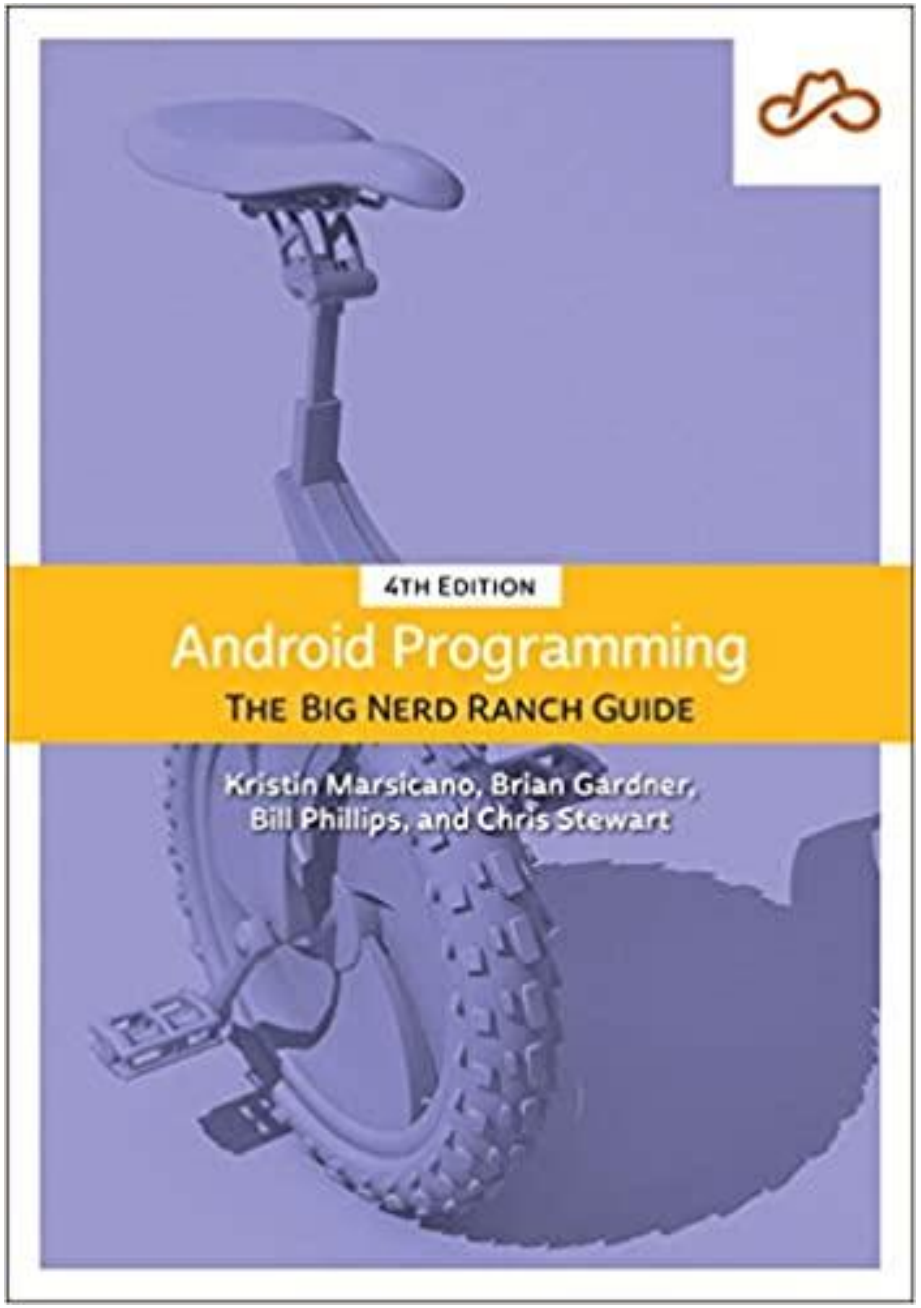
Schedule

Topics	Weeks	Chapters
Kotlin programming language	2	Online readings
UI components & layout design	2	1, 6, 9 & 10
Activity and fragment lifecycle	1	3 & 8
App Navigation	1	12 & 14
Asycnrounous progamming	1.5	Online readings
Data management	1.5	11
Accessing Web API	1	24
Backround services and Notifications	1	27
Permissions and intents	1	15 & 23
Sensors, location and maps	1	Online readings
Review & Exams	1	

Recommended Textbook

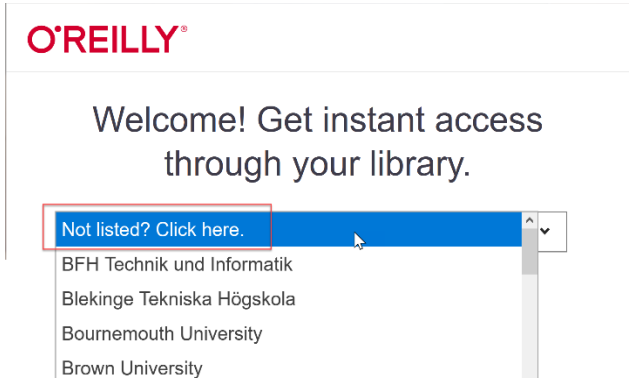
Bill Phillips, Chris Stewart and Kristin Marsicano; **Android Programming: The Big Nerd Ranch Guide**, 4th Edition, 2019

Plenty of online resources will be providing



How to get the textbook online

- Visit https://www.oreilly.com/library/view/temporary-access
- Select ‘Not listed, click here’



- Enter your QU email address to gain access
- Search for the textbook ‘**Android Programming: The Big Nerd Ranch Guide**’
- You will also get an email to set a password for your account

Your Grade is Based on:

Lab assignments	30%	Individual Lab activities/ assignments (5 out of 6)
Project	30%	2 Phases (group of 3 students)
Midterm exam	20%	Theory (10%) & Lab Practical (10%)* After the mid-spring break
Final exam	20%	Theory (10%) - Consult University exam timetable Lab Practical - during the last Lab (10%)*

***Students who get less then 50 marks out of 100 in the Practical Midterm/Final we get their project's grade reduced to half of the group grade**

How to succeed in this course….

- Do your weekly assigned readings
- **Read the slides before you come to the class**
- **Exercise a lot – study as many examples as possible**

  - Understand and enhance the examples I provide as well as the ones in the textbook and the ones in the provided resources
- **Attend and participate in class**
  - **Many of the exam questions are from the class explanation**
- Do all the assignments and project **yourself.** Actively contribute to your project.
- Seek help when needed and ask questions (and do it EARLY): During Lectures/Labs & Come to office hours

We learn swimming by swimming and we learn design and programming by practicing it!

Software we will use

- Android Studio
  https://developer.android.com/studio
- GitHub

- For modeling we will use **Visual Paradigm**

https://ap.visual-paradigm.com/qatar-university/license.jsp

- Other tools will be communicated to you as we go

GitHub will be used to deliver content, assignments an projects

Check https://github.com/cmps312f20/cmps312-content

regularly!

Lecture slides, Demos and Assignments are there!

Communications will be by email

Important Notes

- Attendance… QU attendance policies will be enforced
  - Do not miss classes/labs
- **Start your assignments and project early!!!**
- Students are expected to learn independently as much as needed in order to complete the course requirements
  - Do not expect me to find/fix your code bugs
  - Do not expect me to find and fix your technical issues
  - I can only give you high level suggestions and guidance

No ‘Free Riding’ allowed

- ‘free riders’ (who do not contribute much) => not acceptable and not fair for hardworking students
  - You must actively contribute to your project and do your ultimate best to deliver the best possible results
  - Otherwise you will be asked to do the project alone

Plagiarism / Cheating

- “Getting an unfair academic advantage"
  - Using other people's work as your own
  - Not doing your assignments yourself
- All the code you submit has to be your own
    - Only exception: Code I have provided or explicitly authorized
    - **NO** code you have found on the web. **NO** sharing with others.
- **Do your homework and project yourself**
  - Do NOT copy from each other or from the Internet - **I will know it!**
  - You can be picked-up randomly to explain your implementation
  - Cheating will be treated very seriously
- Penalties START with a zero on the assignment, failing the course! and other disciplinary actions as per QU policy

Communication

- Post your technical questions to Piazza

- When emailing me you must add – **CMPS 312** to the beginning of the email title

e.g., CMPS 356 – Request for a meeting

- For **guidance** on technical issues come to office hours NOT by email

To do before next class

- Form a team and setup your team's GitHub repo (see emailed instructions)
- Install the required software (see the email I have sent you)
- Register for GitHub and Piazza
- Prepare any questions you might have

I wish you a fruitful and enjoyable journey!