**CSIT 333 *Mobile Applications Development***

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| **Instructor** | Professor Raghunath |
| **Office Location** | 2153 |
| **Phone** | - |
| **E-mail** | [raghunat@fredonia.edu](mailto:raghunat@fredonia.edu) |
| **Office Hours** | TBD |
| **Course Place** | Fenton 2164 |
| **Course Time** | MWF 2pm – 3pm |
| **Skype** | stephen.raghunath |
| **Course Files** | <https://github.com/raghunat/fall-2018> |

**1. Catalog Description:** This course introduces system development for the Android, iPhone or Windows mobile operating systems from both the practical software implementation and the theoretical software design perspectives. Topics covered include: Overview of mobile systems development, scope of mobile software, mobile development environments, user interface design, receivers/alerts and services coordination, hardware interaction, multimedia integration, and networking/location-based services utilization.

**Credits:** 3

**Frequency:** At least once every two years

2. **Prerequisite(s):**

CSIT 205 or CSIT 221

**3. Course Textbook:**

**No assigned textbook. Resources will be distributed during classes.**

<https://github.com/raghunat/fall-2018>

**4. Learning Goal(s):**

This particular course will address the following department learning goals:

B. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.

C. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.

D. An ability to function effectively on teams to accomplish a goal.

I. An ability to use current techniques, skills, and tools necessary for computing practice.

Students will meet these goals by attending lectures, through examinations, and by completing a significant term project that integrates the majority of the course content into a single app.

**5. Objectives:** After completing this course the student will be able to:

1. Utilize development appropriate mobile development environments and tools
2. Design Android/iOS/Windows applications using object-oriented modeling techniques.
3. Understand basic Mobile Programming
4. Understand basic cross platform frameworks
5. Effectively design mobile interfaces
6. Plan appropriate mobile application security
7. Produce a working mobile application

**6. Course Structure:**

* Lectures
* Discussions
* Assignments
* Term Project

**7. CCC:** This course does not satisfy any CCC requirements.

**8. Tentative Course Outline:**

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| **Week** | **Topic** |
| **Week 1** | Git & Mobile Applications |
| **Week 2** | Building Blocks for Cross Platform Apps |
| **Week 3-4** | Ionic Introductions |
| **Week 5-6** | Ionic Life Cycles |
| **Week 7** | Ionic Components |
| **Week 8-9** | Native Featurette: Basic Services |
| **Week 10-11** | Native Featurette: Media/Graphic Controls |
| **Week 12-13** | Native Featurette: Outer App Integration |
| **Week 14-15** | Topics as time permits. |

**9. Exams, Quizzes and Projects:** All exams and projects must be taken on the date scheduled or submitted by the due date. Failure to do so will result in a zero score for that exam, quiz, or project. An exam, quiz, or project missed due to absence cannot be made up unless prior arrangements with the instructor have been made 24 hours prior to the scheduled date. The arrangements should be validated with a written excuse note from the proper authority and will be required before a makeup is considered.

**10. Grading:**

The term projects will be a major programming assignment that selected from a list of unique projects. Students will have at least six weeks to complete the project. Solution must be submitted on the specified due date along with a detailed technical write-up describing the project, the approach taken to solving the project, important technical aspects of the implementation, the results of the project, and how the principles demonstrated in the project can be extended to future endeavors. Students will be able to work in groups if they choose.

There will also be minor projects, reading assignments, and short quizzes. All items are given a point value, in which is relative to the total number of points given per semester.

Incompletes will only be given on a case by case basis for exceptional circumstances (example: death of a family member or extreme illness). Students interested in incompletes should discuss the possibility with the instructor as soon as possible. In particular, incompletes will not be considered during the last two weeks of the semester unless they adhere to official policies.

**11. Class Attendance:** Attendance is highly recommended. The students are responsible for all material presented in class and in assigned reading.

If the students miss a class it is their responsibility to obtain the lecture information, including announcements, from fellow students. Make-up lectures will not be given. You are responsible for all information from each lecture whether or not the lecture was attended.

**12. Academic Honesty:** University policies for academic honesty will be applied.

**13.**[***Click here for the* *Academic Calendar of the current semester***](http://www.fredonia.edu/calendars/academic_calendar.asp)

**14. Classroom and Lab Procedures:**

1. **Textbooks** do not need to be brought to each class. Reading assignments will be clearly announced.
2. **Cell phones**: Cell phones should at least be placed on silent. If a phone distracts its owner or other members of the class, it will be collected and held until the end of class. The instructor reserves the right to implement a policy to penalize the grades of students if cell phone use becomes a class issue.

**Laptops:** Laptops should be used only for the work directly related to the course.

**Note: This syllabus is subject to change at the discretion of instructor.**