

644 - Learning Computer Programming by Building Android Apps (2 credits)

Course Description:

Students will learn programming and fundamentals of app development by building a series of Android apps during this course. The class will be project based, and will employ a "learning by doing" approach. Students will work on apps using the App Inventor visual programming platform originally developed by Google and now hosted and maintained by MIT Media Labs. Class projects will include development of apps based on the embedded TinyDB database, and location sensitive apps based on GPS inputs. The class will culminate in group projects involving the development of apps of local relevance.

Course Contents:

Introduction to App Inventor: The architecture of a smartphone app. Event handlers and event driven programming.

Animation and creating smart phone games: Programming with canvases, sprites and timers. Making use of location sensors. Responding to SMS and scanning barcodes.

Creating apps with data and forms : Storing and retrieving persistent data in an app.

Main Reading:

1. App Inventor: Create Your Own Android Apps, by David Wolber