**Course Description**

**Android** is a [mobile operating system](http://en.wikipedia.org/wiki/Mobile_operating_system) (OS) based on the [Linux kernel](http://en.wikipedia.org/wiki/Linux_kernel) and currently developed by [Google](http://en.wikipedia.org/wiki/Google). With a [user interface](http://en.wikipedia.org/wiki/User_interface) based on [direct manipulation](http://en.wikipedia.org/wiki/Direct_manipulation_interface), Android is designed primarily for [touchscreen](http://en.wikipedia.org/wiki/Touchscreen) mobile devices such as [smartphones](http://en.wikipedia.org/wiki/Smartphone) and [tablet computers](http://en.wikipedia.org/wiki/Tablet_computer), with specialized user interfaces for televisions ([Android TV](http://en.wikipedia.org/wiki/Android_TV)), cars ([Android Auto](http://en.wikipedia.org/wiki/Android_Auto)), and wrist watches ([Android Wear](http://en.wikipedia.org/wiki/Android_Wear)). The OS uses touch inputs that loosely correspond to real-world actions, like swiping, tapping, pinching, and reverse pinching to manipulate on-screen objects, and a [virtual keyboard](http://en.wikipedia.org/wiki/Virtual_keyboard). Despite being primarily designed for touchscreen input, it has also been used in [game consoles](http://en.wikipedia.org/wiki/Video_game_console), [digital cameras](http://en.wikipedia.org/wiki/Digital_camera), regular PCs, and other electronics.

As of July 2013, the [Google Play](http://en.wikipedia.org/wiki/Google_Play) store has had over one million Android applications ("apps") published, and over 50 billion applications downloaded.[[11]](http://en.wikipedia.org/wiki/Android_%28operating_system%29#cite_note-phonearena1-12) A developer survey conducted in April–May 2013 found that 71% of mobile developers develop for Android.[[12]](http://en.wikipedia.org/wiki/Android_%28operating_system%29#cite_note-visionmobile1-13) At [Google I/O](http://en.wikipedia.org/wiki/Google_I/O) 2014, the company revealed that there were over one billion active monthly Android users, up from 538 million in June 2013.[[13]](http://en.wikipedia.org/wiki/Android_%28operating_system%29#cite_note-14) As of 2015, Android has the largest [installed base](http://en.wikipedia.org/wiki/Installed_base) of all general-purpose operating systems.