ITMD 453 SYLLABUS

ITMD 453 Enterprise Intelligent Device Applications

Hours: 3 credit hours / 45 contact hours

Instructor: Martin Schray

Textbook, title, author, and year: *Windows Store App Development: C# and XAML,* Pete Brown, 2014.

Specific course information

a. Catalog description: Intelligent device application development is covered with proprietary enterprise and open-source technologies on media device, mobile and robotic platforms. Utilizing contemporary toolkits, the student considers design and development on simulated and real "smart" devices including smart phones, tablets, sensors, actuators, drones, and robots. Numerous exercises reinforce concepts gained throughout the course. A term project will integrate course topics into a comprehensive intelligent device application.
b. Prerequisites: ITMD 311
c. Required.

Specific goals for the course

a. **Course Outcomes:** Engage students in learning about Mobile Application development. This course will focus on mobile applications for the Windows Store (e.g. Windows RT Apps) and Windows Phone stores via Universal Apps. Students will learn how to successfully build apps and have their apps accepted for the |Windows/Windows Phone Store. Students complete this course with practical ideas and skills letting you build cool, edgy and useful apps that will be successful in the Windows/Windows Phone Stores.
b. **Course Student Outcomes:**
Upon successful completion of the course the student should be able to do the following:
   - Create robust Windows apps formatted for submission to the Windows App Store
     - create apps using external libraries, control libraries, and third-party controls
     - create multiple page apps with appropriate page navigation
     - employ touch friendly design idea and controls
     - manipulate and employ images in apps
   - Submit apps completed as assignments to the Windows App Store
     - have 75% or more of apps submitted accepted into the store
     - achieve 100 plus downloads of accepted apps

Topics to be covered

a. XAML development, Windows 8 dev methods
b. Event handlers, constructing single page apps
c. Windows store accounts, stacking panels and control composition, third-party controls
d. Build app UI through "control composition", more third party controls, basic use/UI building with infragistics controls
e. Using MVVM & a modelview, implementing a modelview
f. Async, Azure mobile services, addressing slow app/system processes
g. Applications reuse between Windows 8 and Windows Phone enhance visual appeal of apps via animations and transforms
h. Modify standard templates to change look & feel
i. Using multiple pages, page navigation, manipulate application state application suspend and resume in multi-page apps
j. Employ touch friendly design idea and controls
k. Manipulate and employ images in apps
l. Using calls to native code to add functionality
m. Final Project work

Each ITM Departmental Syllabus *represents a recent offering of the course. The instructor, textbook(s), course outcomes, and course student outcomes/learning objectives may vary in future semesters.*

June 27, 2020