ENDICOTT COLLEGE
376 Hale Street
Beverly, Massachusetts 01915

Van Loan School of Graduate and Professional Studies

Course Number:

Course Title
Developing A Mobile Applications Curriculum
A Teachers Course For Creating and Implementing a Mobile Devices Curriculum

Faculty: Daniel Downs
Course Credits:3 Graduate Credits
Course Meeting Dates:M,T,W,T,F
Specific Meeting Times:8:00-5:30

Course Description

This course covers the design of curriculum and implementation of tools for developing mobile applications in the classroom.The course in developing mobile applications using flash utilizes several tools to help students/teachers design, develop and implement their own mobile applications for the Android,Iphone,Ipad device market.

Students will be working in collaborative groups to learn skills using the Flash CS5.5 program. Students also are allotted time to work on their individual skills on lessons and tutorials. Students will perfect mastery over several tutorials in Flash in order to complete the design of their first application. Students both individually and in groups will need to choose what the design, layout and specific technologies required for their design.

The conclusion of the course will include strategies for implementing group learning theories and Project based Learning approaches with an app development course. Students will develop a lesson plan which integrates mobile applications or tablet technology within an exisiting curriculum.

Software Used For Course:(30 Day Trials Available)
Minimum Requirements to Run Flash CS5.5
http://kb2.adobe.com/cps/888/cpsid_88854.html#main_Minimum system requirements
Minimum Requirements to Run Photoshop CS5.5
http://kb2.adobe.com/cps/832/cpsid_83210.html#main_Minimum system requirements
Hardware Used:
Motorala Zoom Tablets
Android Smart Phones

Course Objectives

- Have understanding of concepts of constantly changing environment of mobile technology (Android,Iphone,Ipad, Mobile Device Technology)
- Learn techniques for information acrhitecture and design for user interactions of mobile applications
- Provide Review of current technologies to bring mobile technology into your clasroom
- Learning how to use and read actionscript code and snippets to create mobile applications
- Gain understanding of ways to create Mobile Applications within the Adobe Flash CS5.5 software.
- Proper curriculum design for integrating app design into the classroom.
- Strategies for project based learning experiences and assessment
- Strategies for connecting the Massachusetts Technology Standards to your projects.
- Survey of available tools for app development in the classroom
- Portfolio of app creation upon leaving course showcasing learned skills
- Knowledge of current trending mobile software,hardware,devices and how they can be integrated into the classroom across levels.

Main Curriculum Content/Themes

- Mobile Technology Classroom integration
- Android,Iphone and Ipad Platforms and Devices
- Flash CS5.5 software
- User Interaction Design
- API's
- Tablet/Touch Technology
- Curriculum for App Development
- Project Based Learning
- 21st Century Skills
- Actionscript 3.0,Java for Android
- Group Learning Theories
- API(GPS, pinch and zoom, touch events, scrollable fieds, accelerometer) integration.
- Integrating Massachusetts Technology Standards with Mobile technology Development.

Teaching Methodology

1. *Hands on Class Presentations*

Students will be presented example of mobile applications and tutorials created in the classroom which will help them envision how they can integrate mobile technology into their curriculum. Students will be shown Powerpoint Presentations,Videos of Student Work,Video Tutorials and have hands on experiences with tablet technology and devices.

2.*In class tutorials*

Students will create basic graphics in Photoshop for their Mobile Application Designs.
Students will work through video tutorials with the instructor which will build their applications in Flash CS5.5 software.

3.*Students will work in groups and individually in the development of their Mobile Applications.* They will be provided tools for designing,developing and testing their Mobile Applications.
4.*Example Lesson plans created in the course will be presented at the end of the course which will reflect knowledge gained in the course.*
5. *Students will be presented with opportunities to test and play with tablet technology during the course.*

Assessment

Assignment 1:Designing the Mobile Experience
Developing an Information Architecture(Lecture and planning activities)
Design Considerations for Buttons,Graphics and Layout(Lecture and Planning Activities)

Assignment 2:Creating your first basic application
Classroom App(Idea development and layout design for personal app)
Creating Pages Tutorial(Video Tutorial,2 hours in total work time)
Packaging and Exporting the APK(Lecture,tutorial and lesson activity)
Installing On A Device(Lecture,tutorial and Lesson Activity)

Assignment 3:Learning API Technology
Introductory Lecture followed by 3 tutorials(1 hour each)

Assignment 4:Exploring App Creation Tools
Lecture and Group Discussion
Curriculum Development

Assignment 5:Curriculum Strategies with Mobile Applications
Lesson Plan
Classroom Plan for Group Learning/Project Based Approaches

Objective/Learning Outcome	***Means of Assessment***	***Evidence of Student Learning based on the criteria established***
Have understanding of concepts of constantly changing environment of mobile technology (Android,Iphone,Ipad, Mobile Device Technology)	**Articles,Presentations,Group Discussions,**	**Applications of Skills in Class Projects**
Learn techniques for information acrhitecture and design for user interactions of mobile applications	**Group Activities,Presentations**	**Planning Sheets,Integration into class projects**

Provide Review of current technologies to bring mobile technology into your clasroom	**Group Discussions,Hardware Presentations,Review of curriculum**	**Lesson Plan integration, Completion of In class Tutorials using hardware and software**
Learning how to use and read actionscript code and snippets to create mobile applications	**Class Tutorials,Videos, Presentations,Hands on Activities**	**Integration of code into class projects**
Gain understanding of ways to create Mobile Applications within the Adobe Flash CS5.5 software.	**Class Tutorials,Videos, Presentations,Hands on Activities**	**Completed Applications, Tutorials,Presentations,Hands on activities**
Proper curriculum design for integrating app design into the classroom.	**Presentations,Videos,Group Activities,Course Readings**	**Final Lesson Design Participation,Presentation**
Strategies for project based learning experiences and assessment	**Presentations,Videos,Group Activities,Course Readings**	**Final Lesson Design Participation,Presentation**
Strategies for connecting the Massachusetts Technology Standards to your projects.	**Presentations,Videos,Group Activities,Course Readings**	**Final Lesson Design Participation,Presentation**
Survey of available tools for app development in the classroom	**Presentations,Videos,Group Activities,Course Readings,Hardware Presentations**	**Final Lesson Design Participation,Presentation**
Portfolio of app	**Presentations,Videos,Group**	**Final Lesson Design**

creation upon leaving course showcasing learned skills	**Activities,Course Readings,Hardware Presentations,Tutorials**	**Participation,Presentation,Final Application Creation,Final Lesson plan**
Knowledge of current trending mobile software,hardware,devices and how they can be integrated into the classroom across levels.	**Presentations,Videos,Group Activities,Course Readings,Hardware Presentations,Tutorials,Lesson Planning**	**Final Lesson Plan,Creation of Final App**

Final Grading Criteria:

A : The student demonstrates all required competencies and class attendance at an exemplary level at the times specified by the instructor. A (93-100)% A- (90-92)%

B : The student demonstrates all required competencies and class attendance at expected Graduate level standards. B+(87-89)% B (83-86)% B-(80-82)%

C . The student demonstrates required competencies and attendance at satisfactory level. Below 80% C A grade below C is considered a failing grade (C- or below).

Outside of Classroom Group Meeting Hours Documentation Requirement

Each student is in class for 24 hours for each course. Each student is required to document (on the attached log) the remaining 24 hours (at least) of outside of classroom work. This documentation shall be signed by each student and submitted to the professor at the last session of the course. The professor is required to submit these documentations with the grade sheet to the Van Loan Graduate School. Please note that the Outside of Classroom Group Meeting Hours Documentation is required for course completion.

Attendance Policy:

Class attendance is essential for success in this course. Please be prompt to class, as we have a very tight schedule. If an emergency arises please call me as soon as possible. You are responsible for what is missed in class. Please keep in mind that missing even 1 class is a substantial amount of the course. Your grade will reflect your attendance, your class participation and your hard work on the assignments.

Here are the criteria utilized:

Attendance and class participation--**Full and on-time attendance** is expected. Endicott College defines excused absences as those situations of illness, crisis or situations entirely beyond the student's control. Make-up assignments will be provided for students who need to make up missed class time, and in the case of excused absences, a full grade for participation will be possible upon their completion.

Full, focused, respectful and active participation in all large and small group activities and discussions, including being an actively responsive audience member during and after video screenings

and class performances/presentations. Assigned readings will be reviewed in small and/or large group discussions.

ADA Policy:
If you as a student qualify as a person with a disability, as defined in Chapter 504 of the Rehabilitation Act of 1973, you may wish to discuss the need for reasonable accommodations with your instructor. You should make this contact at the beginning of the course.

Academic Honesty:
A university is a community of individuals who voluntarily join together for the purpose of learning. At the heart of this sense of academic community is the idea that the behavior of its members is guided by a shared commitment to the highest standards of academic integrity. Any form of cheating, plagiarism or assisting others in acts of dishonesty is a violation of such standards. As a student in this course, it is assumed that you pledge that you will neither receive nor give unauthorized assistance during the completion of all my work in this course. You will not engage in plagiarism. (The definition of plagiarism is the deliberate presentation, oral or written, of words, facts, or ideas belonging to another source without proper acknowledgment.)

Please be aware of Endicott College's academic honesty policy. Cheating/Plagiarism (to include the cutting and pasting of unmodified code from the internet) is grounds for failure in the class, and possibly academic dismissal.

LEARNING RESOURCES:

Android Applications Class Winchester High School Winchester,Massachusetts
http://www.androidapplicationsclass.com

Background Knowledge & Theory. (2010). *Redirection to Equivalent @ Cengage*. Retrieved March 5, 2010, from http://college.cengage.com/education/pbl/background.html

21st Century Skills | Project Based Learning. (2010). *Buck Institute for Education | Project Based Learning*. Retrieved May 17, 2010, from http://www.bie.org/about/21st_century_skills

FAQ: 21st Century skills initiative | Benton Foundation. (2009). *Benton Foundation | The Benton Foundation works to ensure that media and telecommunications serve the public interest and enhance our democracy.* Retrieved May 17, 2010, from http://www.benton.org/initiatives/skillsfaq

Getting Started With Project Based Learning. (2002). *www.iste.org*. Retrieved May 5, 2010, from

www.iste.org/YourLearningJourney/ProjectBasedLearning/getting-started-with-PBL.pdf

What is Project-Based Learning?. (2008). *Project Based Learning*. Retrieved June 13, 2010, from

http://pbl-online.org/About/whatisPBL.htm

Final Grading Criteria

Class participation 50%

Completion of In class Assignments(Classroom Mobile Application,Tutorials,Lesson Plan,Group Activities,Design Lesson) 50%

Outside of Class Work

Students will be asked to download software outside of classtime.

Students will also be asked to make up any missed components of lessons outside of the set classtime as each day of class will be important to staying on schedule with projects.