

New Course Request

Indiana University

Indianapolis _____ Campus

Check Appropriate Boxes: Undergraduate credit Graduate credit Professional credit

1. School/Division Informatics 2. Academic Subject Code NEWM-N
3. Course Number 221 (must be cleared with University Enrollment Services) 4. Instructor Prof. Polly Baker
5. Course Title ActionScript I

Recommended Abbreviation (Optional) _____
(Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Fall 2010

7. Credit Hours: Fixed at 3 or Variable from _____ to _____

8. Is this course to be graded S-F (only)? Yes _____ No

9. Is variable title approval being requested? Yes No

10. Course description (not to exceed 50 words) for Bulletin publication: P: N101. Introduces skills for designing and developing interactive multimedia applications for the Web, mobile devices, and the desktop. Students develop in ActionScript the scripting language that powers Adobe FlashPlayer applications. Using Adobe Flex, Flash, and ActionScript, students build applications that emphasize graphics, animation, and interactivity.

11. Lecture Contact Hours: Fixed at 3 or Variable from _____ to _____

12. Non-Lecture Contact Hours: Fixed at 0 or Variable from _____ to _____

13. Estimated enrollment: 25 of which 0 percent are expected to be graduate students.

14. Frequency of scheduling: F/S Will this course be required for majors? _____

15. Justification for new course: Redesign of New Media Curriculum

16. Are the necessary reading materials currently available in the appropriate library? Yes

17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials.

18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant.

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by:

Approved by:

M. Pauline Behr

[Signature]

Date 6/30/2009

Date 1 July 2009

Department Chairman/Division Director

Dean

Date _____

Date _____

Dean of Graduate School (when required)

Chancellor/Vice-President

Date _____

University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

Course Outline

Course Number: N221

Course Title: ActionScript I

Credits: 3 hours

Instructor: Prof. Polly Baker, and others

Office Address: IT 400

Office Phone: 278-8150

Office Hours: TBA

Email Address: baker@iupui.edu

Course Description: Introduces skills for designing and developing interactive multimedia applications for the Web, mobile devices, and the desktop. Students develop in ActionScript, the scripting language that powers Adobe FlashPlayer applications. Using Adobe Flex, Flash, and ActionScript, students build applications that emphasize graphics, animation, and interactivity.

Prerequisites: N101 or equivalent

Course Outcomes: After completing this course, you should be able to:

- Design and build a user interface using MXML tags
- Design, implement, and debug application logic in ActionScript 3.0
- Design and build interactive and time-based applications
- Use modular design concepts and techniques, build and use MXML components
- Read and interpret documentation
- Explain the relationship among the ActionScript family of products and compare ActionScript to other programming languages

IUPUI PULs: This course incorporates the IUPUI Principles of Undergraduate Learning. The course emphasizes Critical Thinking. Building applications depends on analyzing requirements, evaluating alternative designs, and applying knowledge to create a good result, all elements of critical thinking. The course also involves Core Communication and Quantitative Skills, in that you will discuss your designs with other class participants.

Recommended Texts:

Author: Alaric Cole

Title: Learning Flex 3: Getting up to Speed with Rich Internet Applications

Publisher: OReilly

ISBN: 978-0-596-51732-8

Author: Rich Shupe

Title: Learning ActionScript 3.0

Publisher: O'Reilly
ISBN: 978-0-596-52787-7

Software: This course uses Adobe FlashBuilder, Adobe Flash, and Adobe ActionScript, available in the Lab. Adobe Flash is available to students at <http://iuware.iu.edu>. Adobe also makes FlashBuilder available to students at no cost. We will discuss how to acquire and install these packages on your laptop or home computer.

Topic, by Week (tentative schedule)

1. Using FlashBuilder
2. MXML Widgets
3. MXML Containers
4. Scripting in ActionScript: Variables, Types, Objects
5. Scripting in ActionScript: Functions
6. Scripting in ActionScript: Conditions
7. Scripting in ActionScript: Arrays, Loops
8. Event-driven Applications
9. Modular design: MXML Components
10. Drag-and-Drop, Intersection Testing
11. Bouncing and Throwing
12. Sounds and Sound Effects
13. Time-based Applications, Tweening engines
14. ActionScript Display List, Graphics, Classes
15. Integrating Flex and Flash
16. Comparing these tools with other approaches

Equipment: You will need some form of portable storage, such as a USB thumb drive, for saving your work.

Communication: All class documents, including the syllabus and assignments, will be posted on OnCourse. Feel free to email me at any time with questions or concerns.

Class Format: Our time in the classroom will combine lecture, demonstration, discussion, and hands-on lab exercises.

Reading Assignments: The textbook is a good resource for additional explanation of many of the concepts covered in class. Additional class materials will be available through OnCourse.

Homework: All assignments will be discussed during class and posted on OnCourse. In some cases, we will use classroom time to get started on an assignment, but you will also need to work on your own outside of class time to complete some assignments.

Workload: Becoming proficient in anything requires an investment of time and effort. This class will include a number of homework assignments, designed to let you practice and experiment with the concepts we are learning. As you budget your time for the semester, you should anticipate spending several additional hours per week on this course.

Due Dates: Assignments are due at the beginning of class, unless specified otherwise. Late assignments will be accepted only in a 24-hour window past the assignment date, and only for half-credit. There are no exceptions.

Grading: Your performance in the course is measured by the points you accumulate on homework assignments, lab exercises and presentations, and quizzes, with weights as follows:

| | |
|-----------------------|-----|
| Lab activities: | 40% |
| Homework assignments: | 30% |
| Quizzes: | 30% |

Grades are based on points according to the following:

90 to 100 → A, 80 to 89 → B, 70 to 79 → C, 60 to 69 → D, 0 to 59 → F

Attendance: Attendance in class has been shown to contribute to academic success. At IUPUI, attendance in class is mandatory.

Class Courtesy: Come to class on time and be prepared. Turn off your cell phone and other noisy devices. Don't do homework, answer email, or engage in conversation during class. Listen to your classmates when they are asking questions or presenting their work. Do not bring children with you to class.

Plagiarism:

Plagiarism is the use of the work of others without properly crediting the actual source of the ideas, words, sentences, paragraphs, articles, music, or pictures. Using other students' work (with or without their permission) is plagiarism if you don't indicate who did the work. Plagiarism is cheating. It is a serious offense and will be punished.

All students should read the IUPUI Code of Student Rights, Responsibilities, available at <http://www.iupui.edu/code>. This document describes your rights and responsibilities as an IUPUI student.