Course Description:
Examines the techniques used in multimedia applications to communicate with back-end data and information services, and to create applications with run-time access to data, information, and media assets.

Course Description Addendum:
This class also explores multi-screen development, mobile devices, TV’s etc. This class will be mostly a project-based class and will change often to keep up with the ever changing technologies.

Data files: Instructions will be provided for obtaining the files from Oncourse/CD

Equipment needed
- USB memory stick (4G minimum) or portable hard drive
- A personal laptop.

Software Employed
Adobe Flex 4.6, Adobe Dreamweaver, Adobe Photoshop, Adobe Illustrator, Other editors, Prototyping software.

Pre-requisite: N221 or N222 or compatible class

Course Outcomes:
By the end of the course, the students will have:
- Understand fundamental mobile design principles
- Discuss, analyze, and demonstrate effective case study uses of mobile-based interactive designs
- Design and implement a mobile application using the current industry standard tools
- Learn how to access a data service.
- Understand cross platform development.
- Learn image optimization for mobile devices
- Understand how your application functions in all environments
- Experience current frameworks that will enable you to create optimized applications.
- Discuss usability issues with Mobile devices and design applications with this practice in mind.
- Understand the importance of prototyping
- Learn how to make mockups to present to clients/class
Core Competencies: The core competencies for N322 can be found in the Principles of Undergraduate Learning (PUL). For this course, each student should be able to demonstrate learning outcomes in the following areas:

- Critical thinking
- Application of knowledge
- Intellectual depth, breadth, and adaptiveness

Student Accommodations
Students needing accommodations because of a disability will need to register with Adaptive Educational Services (AES) and complete the appropriate forms issued by AES before accommodations will be given. The AES office is located in Taylor Hall, UC 100. You can also reach the office by calling 274-3241.


Accordingly, "no qualified individual with a disability shall, by reason of such disability, be either excluded from participation in or be denied the benefits of the services, programs, or activities" of Indiana University-Purdue University Indianapolis. Please be aware, "faculty and staff are prohibited from discriminating or retaliating against any individual who has opposed any act or practice that the individual believes is discriminatory, or because the individual made a charge, testified, assisted, or participated in any manner in an OCR or EEOC investigation." Moreover, university faculty and staff shall not coerce, intimidate, threaten, or interfere with any individual in the exercise of enjoyment of the protections or rights granted by Section 504 or Title II. We thank you in advance for your compliance in this endeavor. If you have any questions, comments or concerns about this reaffirmation, please do not hesitate to contact either the Office of Equal Opportunity at 274-2306 or by e-mail at affaindy@iupui.edu or Adaptive Educational Services at 274-3241 or by e-mail at aes@iupui.edu.

Dominic Dorsey II, M.S.Ed Assistant Director of ADAAA Compliance and Services Office of Equal Opportunity/Adaptive Educational Services

Expectations/Guidelines/Policies
- Attendance: This class meets once a week. You are expected to attend every class. Attendance is required. Failure to attend class could result in a reduction or failing grade. An attendance sheet will be passed around and your signature is confirmation that you will receive credit for that day’s attendance. (10 points if you attend, 0 points if you miss).

All students are responsible for reading the Code of Student Rights, Responsibilities, and Conduct of Indiana University Purdue University Indianapolis.

The Mission of IUPUI is to provide for its constituents excellence in
- Teaching and Learning
- Research, Scholarship, and Creative Activity
- Civic Engagement

With each of these core activities characterized by
• Collaboration within and across disciplines and with the community
• A commitment to ensuring diversity, and
• Pursuit of best practices

IUPUI’s mission is derived from and aligned with the principal components – Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices – of Indiana University’s Strategic Directions Charter.

Statement of Values
IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana’s capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community; both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.

Academic Honesty
All students in New Media should aspire to high standards of academic honesty. This class encourages cooperation and the exchange of ideas. However, students are expected to do their own work.

Plagiarism (adapted from the definition by the School of Liberal Arts)
Plagiarism is the use of the work of others without properly crediting the actual source of the ideas, words, sentences, paragraphs, entire articles, music or pictures. Using other students’ work (with or without their permission) is still plagiarism if you don’t indicate who initially did the work. Plagiarism, a form of cheating, is a serious offense and will be severely punished. When an instructor suspects plagiarism, he/she will inform the student of the charge; the student has the right to respond to the allegations. Students whose work appears to be plagiarized may be asked to produce earlier drafts of the work. Students should, for this reason and as a protection in cases of lost papers, diskettes, retain rough drafts, notes and other work products for 2 or 3 weeks after the end of each semester. The penalties for plagiarism include reprimands, being failed for a particular exam, paper, project or the entire course, disciplinary probation, or dismissal. Faculty, after consulting with their chair and/or the dean must notify students in writing of their decision. Students have the right to appeal such decisions by the submitting a petition.

Liability Warning
Your student ID and password are private! Under no circumstance are you to give them out to anyone. If another person uses your ID or password you will be held personally responsible for any and all activity on your computer account. If plagiarism is involved you run the risk of being dismissed from the school. If a computer or software is damaged you are responsible for repair and replacement. Loaning out your ID or password involves too much risk.

Policies
“Children are not permitted to attend class with parents, guardians, or childcare providers. This conduct has the effect of unreasonably interfering with an individual’s work or academic performance creating an offensive learning environment.”
“A student must not violate course rules as contained in a course syllabus, which are rationally related to the content of the course or to the enhancement of the learning process in the course.” [Code of Student Rights, Responsibilities, and Conduct, page 29]

**Email Policy**
Email shall be considered an appropriate mechanism for official communication by Indiana University. The University reserves the right to send official communications to students by email with the full expectation that students will receive email and read these emails in a timely fashion. Students are expected to check their email on a frequent and consistent basis in order to stay current with university-related communications. Students must insure that there is sufficient space in their accounts to allow for email to be delivered. Students have the responsibility to recognize that certain communications may be time-critical. Students who choose to have their email forwarded to a private (unofficial) email address, outside the official university network address, do so at their own risk. The University is not responsible for any difficulties that may occur in the proper or timely transmission or access of email forwarded to any unofficial email address, and any such problems will not absolve students of their responsibility to know and comply with the content of official communications sent to students’ official IU email addresses.

**Lecture**
Attendance is required. Material covered may require advanced reading and it is up to the student to keep in touch with the project handouts for specific reading assignments. If you miss a lecture, get notes from classmates.

**Assignments**
Assignments will be presented and discussed during the lecture portion of the class. These assignments will then be executed in the laboratory portion or at home. You are expected to be present in the lab to receive credit for work completed. **Late lab assignments will not be accepted after the due date** unless prior arrangements with the instructor have been made. Assignments will be uploaded or collected by the instructor on the due date. Outside time may be required to complete some exercises and assignments. You are responsible for managing and maintaining your files from lab sessions. Make back-ups as necessary.

How to turn in assignments will be discussed in Lecture/Lab.

**Grading Information:**

**Grading scale [points]**

- 970 - 1000 = A+
- 930 - 969 = A
- 900 – 929 = A-
- 870 - 899 = B+
- 830 - 869 = B
- 800 - 829 = B-
- 770 - 799 = C+
- 730 - 769 = C
- 700 - 729 = C-
- 670 - 699 = D+
- 630 - 669 = D
- 600 - 629 = D-
- 0–599 = F
Weekly Schedule:

**Week 1:** Introduction, cover tools needed for class and discuss outcomes of class

**Week 2:** Lecture/Lab: Mobile design and implementation. Study most common designs
   Assignment: Design mock up of mobile design

**Week 3:** Lecture/Lab: Discuss and understand cross platform development, and how your application functions in all environments

**Week 4:** Lecture/Lab: Discussion on Frameworks for designing mobile apps, and how to implement them.
   Assignment: Research paper on frameworks

**Week 5:** Lecture/Lab: Discussion on Frameworks for designing mobile apps, and how to implement them.
   Assignment: Implement chosen framework

**Week 6:** Lecture/Lab: Discuss image optimization for mobile devices
   Assignment: Implement image optimization techniques

**Week 7:** Lecture/Lab: Discuss more advanced frameworks that will enable you to create optimized applications.

**Week 8:** Midterm

**Week 9:** Lecture/Lab: Learn how to access a data service.
   Assignment: Create app accessing data services and techniques used prior.

**Week 10:** Lecture/Lab: Discuss mocking up final app, and usability issues with Mobile devices.
   Assignment: Make mockup

**Week 11:** Lecture/Lab: Discuss animation performance in mobile apps.
   Assignment: Implement tweening engine into app

**Week 12:** Lecture/Lab: Present Mockups to class and work lab

**Week 13:** Lecture/Lab: work lab for final

**Week 14:** Lecture/Lab: work lab for final

**Week 15:** Lecture/Lab: Present final application

**Week 16:** Final Exam