# COURSE CHANGE FORM

**Complete 1a – 1f & 2a – 2c. Fill out the remainder of the form as applicable for items being changed.**

| | | | | | |
|---|---|---|---|---|---|
| **1.** | **General Information.** | | | | |
| **a.** | Submitted by the College of: | Education | Today's Date: | 4/27/11 | |
| **b.** | Department/Division: | Curriculum & Instruction | | | |
| **c.** | Is there a change in "ownership" of the course? | | YES ☐ | NO ☒ | |
| | If YES, what college/department will offer the course instead? | _____ | | | |
| **d.** | What type of change is being proposed? | ☒ Major | ☐ Minor[1] (place cursor here for minor change definition) | | |
| **e.** | Contact Person Name: | Joan Mazur | Email: jmazur@uky.edu | Phone: 7-4896 | |
| **f.** | Requested Effective Date: | ☒ Semester Following Approval | OR | ☐ Specific Term[2]: _____ | |
| **2.** | **Designation and Description of Proposed Course.** | | | | |
| **a.** | **Current Prefix and Number:** | EDC 609 | *Proposed Prefix & Number*: | _____ | |
| **b.** | **Full Title:** | Interactive Multimedia Research and Design | *Proposed Title*: | *Interactive Multimedia & User Design* | |
| **c.** | **Current Transcript Title** (if full title is more than 40 characters): | Interactive Multimedia R&D | | | |
| **c.** | *Proposed Transcript Title (if full title is more than 40 characters)*: | *Interactive Med/User Design* | | | |
| **d.** | **Current Cross-listing:** | ☒ N/A | OR | Currently[3] Cross-listed with (Prefix & Number): _____ | |
| | *Proposed –* ☐ *ADD[3] Cross-listing (Prefix & Number):* | _____ | | | |
| | *Proposed –* ☐ *REMOVE[3, 4] Cross-listing (Prefix & Number):* | _____ | | | |
| **e.** | **Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours[5] for each meeting pattern type.** | | | | |
| Current: | X Lecture | _____ Laboratory[5] | _____ Recitation | _____ Discussion | _____ Indep. Study |
| | _____ Clinical | _____ Colloquium | _____ Practicum | _____ Research | _____ Residency |
| | X Seminar | _____ Studio | _____ Other – Please explain: | _____ | |
| *Proposed*: | _____ *Lecture* | _____ *Laboratory* | _____ *Recitation* | _____ *Discussion* | _____ *Indep. Study* |
| | _____ *Clinical* | _____ *Colloquium* | _____ *Practicum* | _____ *Research* | _____ *Residency* |
| | _____ *Seminar* | _____ *Studio* | *X Other – Please explain:* | *Distance Learning Asynchronous/Sync* | |
| **f.** | **Current Grading System:** | ☒ Letter (A, B, C, etc.) | ☐ Pass/Fail | | |
| | *Proposed Grading System:* | ☐ *Letter (A, B, C, etc.)* | ☐ *Pass/Fail* | | |
| **g.** | **Current number of credit hours:** | 3 | *Proposed number of credit hours:* | _____ | |

**Comment [OSC1]:** Excerpt from *SR 3.3.0.G.2* **Definition.** A request may be considered a minor change if it meets one of the following criteria:
a. change in number within the same hundred series*;
b. editorial change in the course title or description which does not imply change in content or emphasis;
c. a change in prerequisite(s) which does not imply change in content or emphasis, or which is made necessary by the elimination or significant alteration of the prerequisite(s); d. a cross-listing of a course under conditions set forth in *SR 3.3.0.E*;
e. correction of typographical errors.

*...for the specific purposes of the minor exception rule, the 600-799 courses are the same "hundred series," as long as the other minor change requirements are complied with. [RC 1/15/09]

[1] See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair*. If Chair deems the change as "not minor," the form will be sent to appropriate academic Council for normal processing and contact person is informed.
[2] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
[3] Signature of the chair of the cross-listing department is required on the Signature Routing Log.
[4] Removing a cross-listing does not drop the other course – it merely unlinks the two courses.
[5] Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting generally represents at least two hrs per wk for a semester for 1 credit hour. (See *SR 5.2.1.*)

## COURSE CHANGE FORM

| | | | | |
|---|---|---|---|---|
| **h.** | **Currently, is this course repeatable for additional credit?** | | YES ☒ | NO ☐ |
| | *Proposed to be repeatable for additional credit?* | | *YES* ☐ | *NO* ☐ |
| | *If YES:* | *Maximum number of credit hours:* 3 | | |
| | *If YES:* | *Will this course allow multiple registrations during the same semester?* | *YES* ☐ | *NO* ☐ |
| **i.** | **Current Course Description for Bulletin:** | The goal of this class is to examine the theoretical foundations and best practices involves in multimedia research and interface design. These investigations are anchored in user-centered design and the methodology explored in the course is research to practice in usabilty testing and iterative program design. | | |
| | *Proposed Course Description for Bulletin*: | _____ | | |
| **j.** | **Current Prerequisites, if any:** | EDC 544 | | |
| | *Proposed Prerequisites, if any:* | _____ | | |
| **k.** | Current Distance Learning(DL) Status: | ☐ N/A | ☐ Already approved for DL* | ☒ *Please Add*[6] ☐ *Please Drop* |
| | *If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box ☐) that the proposed changes do not affect DL delivery. | | | |
| **l.** | **Current Supplementary Teaching Component, if any:** | ☐ Community-Based Experience | ☐ Service Learning | ☐ Both |
| | *Proposed Supplementary Teaching Component*: | ☐ *Community-Based Experience* | ☐ *Service Learning* | ☐ *Both* |
| **3.** | **Currently, is this course taught off campus?** | | YES ☐ | NO ☒ |
| | *Proposed to be taught off campus?* | | YES ☒ | NO ☐ |
| **4.** | **Are significant changes in content/teaching objectives of the course being proposed?** | | YES ☐ | NO ☒ |
| | If YES, explain and offer brief rationale: | | | |
| | _____ | | | |
| **5.** | **Course Relationship to Program(s).** | | | |
| **a.** | **Are there other depts and/or pgms that could be affected by the proposed change?** | | YES ☐ | NO ☒ |
| | If YES, identify the depts. and/or pgms: _____ | | | |
| **b.** | **Will modifying this course result in a new requirement[7] for ANY program?** | | YES ☐ | NO ☒ |
| | If YES[7], list the program(s) here: | _____ | | |
| **6.** | **Information to be Placed on Syllabus.** | | | |
| **a.** | ☐ Check box if changed to 400G or 500. | If changed to 400G- or 500-level course you must send in a syllabus and *you must include the differentiation* between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See *SR 3.1.4.*) | | |

[6] You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.
[7] In order to change a program, a program change form must also be submitted.

# COURSE CHANGE FORM

Signature Routing Log

**General Information:**

Course Prefix and Number: EDC 609

Proposal Contact Person Name: Joan Mazur Phone: 7-4896 Email: jmazur@uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

**Internal College Approvals and Course Cross-listing Approvals:**

| Reviewing Group | Date Approved | Contact Person (name/phone/email) | Signature |
|---|---|---|---|
| C & I | 5/6/11 | Parker Fawson / 7-0767 / parker.fawson@uky.edu | |
| C & C | 9/22/11 | Doug Smith / 7-1824 / dcsmit1@uky.edu | |
| Co Ed Faculty | 10/10/11 | Robert Shapiro / 9-9795 / rshap01@uky.edu | |
| | | / / | |
| | | / / | |

**External-to-College Approvals:**

| Council | Date Approved | Signature | Approval of Revision[8] |
|---|---|---|---|
| Undergraduate Council | | | |
| Graduate Council | | Dr. Brian A. Jackson Digitally signed by Dr. Brian A. Jackson DN: cn=Dr. Brian A. Jackson, o=University of Kentucky, ou=Graduate School, email, c=US Date: 2011.11.02 13:29:21 -04'00' | |
| Health Care Colleges Council | | | |
| Senate Council Approval | | University Senate Approval | |

Comments:

[8] Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

# Distance Learning Form

This form must accompany every submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. **All fields are required!**

Introduction/Definition: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, *distance learning* is defined as a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies.

A number of specific requirements are listed for DL courses**. The *department* proposing the change in delivery method is responsible for ensuring that the requirements below are satisfied at the individual course level.** It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience for students utilizing DL (available at http://www.uky.edu/USC/New/forms.htm).

| | |
|---|---|
| Course Number and Prefix: EDC 609 | Date: 4/27/11 |
| Instructor Name: Joan Mazur | Instructor Email: jmazur@uky.edu |

Check the method below that best reflects how the majority of course of the course content will be delivered.

Internet/Web-based ☒ Interactive Video ☐ Hybrid ☐

| | ***Curriculum and Instruction*** |
|---|---|
| 1. | How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?<br><br>Yes |
| 2. | How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.<br><br>The texts, course purpose, objectives and assignments are consonant with the F2F offering of this class. The course content requires students to explore and research conversation in online communities and thus has always had significant online analyses and discussions using BlackBoard LMS tools. The Adobe Connect software essentially allows similar (virtual) F2F meetings and both sycnronous and asychnronous access to class work, groups, peers, course resources (such as articles) and the professor. |
| 3. | How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.<br><br>Quizzes and exams will be given via Blackboard and myUK, which require secure password authentication. All exams will consist of random ordering of questions in a category and random ordering of answers for questions, helping to prevent copying from one computer to another. Quizzes and exams will be open book, and timed, to assure that all students have the same opportunities for success. Written work will be read closely for evidence of plagiarism and appropriate tools will be used to check for this (e.g., SafeAssign). |
| 4. | Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?<br>No<br><br>If yes, which percentage, and which program(s)? |

Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Programs

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| | |
|---|---|
| | *As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL, the effective date of the course's DL delivery will be six months from the date of approval. |
| 5. | How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?<br><br>The syllabus meets the DL and University Senate requirements for student help, online technical information, library services and access to the instructor for any needed support services, just as these have always been available in my F2F offerings of this same course. |
| | ***Library and Learning Resources*** |
| 6. | How do course requirements ensure that students make appropriate use of learning resources?<br><br>When appropriate to course content and objectives students can and will be apprised of writing support services, technical support and/or accomodations needed. They are responsible for following up on these referrals. |
| 7. | Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.<br><br>Students will need to be responsible for access to the minimum connection requirements for the use of Adobe Connect, interactive meeting software with both sycnhronous and asynchronous options. These are attached, and include DSL speed connection, audio headset with audio-test compliant capabilities (http://ukconnect.acrobat.com/common/help/en/support/meeting_test.htm ) and webcam options, if desired. |
| | ***Student Services*** |
| 8. | How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Teaching and Academic Support Center (http://www.uky.edu/TASC/index.php) and the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?<br><br>The syllabus contains the information for students to access help and technical support services. |
| 9. | Will the course be delivered via services available through the Teaching and Academic Support Center?<br><br>Yes ☒<br><br>No ☐<br><br>If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology. |

Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Programs

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| | |
|---|---|
| 10. | Does the syllabus contain all the required components, below? ☒ Yes<br>☐ Instructor's *virtual* office hours, if any.<br>☐ The technological requirements for the course.<br>☐ Contact information for TASC (http://www.uky.edu/TASC/; 859-257-8272) and Information Technology Customer Service Center (http://www.uky.edu/UKIT/; 859-257-1300).<br>☐ Procedure for resolving technical complaints.<br>☐ Preferred method for reaching instructor, e.g. email, phone, text message.<br>☐ Maximum timeframe for responding to student communications.<br>☐ Language pertaining academic accommodations:<br>○ "If you have a documented disability that requires academic accommodations in this course, please make your request to the University Disability Resource Center. The Center will require current disability documentation. When accommodations are approved, the Center will provide me with a Letter of Accommodation which details the recommended accommodations. Contact the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."<br>☐ Information on Distance Learning Library Services (http://www.uky.edu/Libraries/DLLS)<br>○ Carla Cantagallo, DL Librarian<br>○ Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 (option #6)<br>○ Email: dllservice@email.uky.edu<br>○ DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16 |
| 11. | I, the instructor of record, have read and understood all of the university-level statements regarding DL.<br>Instructor Name: Joan M. Mazur Instructor Signature: Joan M. Mazur |

Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Programs

EDC 609 - Interactive Multimedia Research & Design
Distance Learning Course Syllabus

Dr. Joan Mazur Phone: 859-481-1413 (Cell)
E-mail: jmazur@uky.edu
Virtual Office Hours: By appointment and Wednesday evenings 4-6:30 **Skype**: joanmmazur, or by pre-arranged phone contact.

A Note About Online Communication with the Instructor: I will respond in a *reasonable* timeframe to all email and cell message requests. *Reasonable* generally means within 2 day of the send. However, if the university is off (e.g. during Holiday break in December) OR it is a 3 day weekend OR if you are emailing me at 2:15 a.m. and expect to hear from me by 6 a.m. that day, such requests are *not reasonable*. Anytime anywhere learning *does not mean* anytime anywhere communication…we're all on email, twitter, facebook and cells a LOT, but please be reasonable☺

IMPORTANT INFORMATION FOR STUDENTS

Disability Services
If you need an accommodation for a disability that limits your ability to participate fully and meet the expectations of this class, you must first go through the University of Kentucky Disability Resources Center, located at #2 Alumni Gymnasium (257-2754).

RANK II MASTERS or RANK I in Instructional Design or the ISD Computer Science Endorsement
If you are taking this course as part of the Rank II Masters or Rank I in Instructional Design or the ISD Computer Science Endorsement, please inform Dr. Mazur (jmazur@uky.edu) so that you can be notified of important informational meetings each semester. This information is key in planning your Rank or Endorsement program and for purposes of monitoring and evaluating portfolio projects and requirements so that you may achieve these professional teaching certifications.

**Academic honesty** is expected in graduate work. Plagiarism and other forms of cheating are absolutely unacceptable. You may not use a paper or project that has previously been used in another class to satisfy coursework in this class, this practice is termed "self-plagiarism" and is unacceptable. Remember: to be guilty of plagiarism, intention is not required – therefore, if you directly quote ANYONE,

you must use quotation marks AND provide the citation with page number! Should you plagiarize, no grades will be issued and your situation will be reported.

Standards

Course materials, activities and assessments address the Kentucky Teacher Technology Standard#10: "The teacher uses technology to support instruction; access and manipulate data; enhance professional growth and productivity; communicate and collaborate with colleagues, parents, and the community; and to conduct reseach/solve problems." Specficially performance indicators 1,2,3,4,5, and 7 are addressed. In addition, this course addresses National Educational Technology Standards (NETS) performance indicators for Teachers and Students developed by the International Society of Technology Educators (ISTE). ISTE has also developed the NCATE technology standards through which this College of Education, and many throughout the country, are certified.

**College Conceptual Framework**: Research, Reflection, Learning, Leading

Students in this course will demonstrate dispositions that characterize the conceptual framework of the college of education. The conceptual framework for the professional education unit at the University of Kentucky is guided by the theme, Research and Reflection for Learning and Leading. This theme is aligned closely with both the institutional vision and mission of UK and the vision and mission of the professional education unit. The theme reflects and guides how we approach preparation of professional educators within the context of a research extensive, land grant university.

**Course Description**

The course examines a variety of multimedia products, selected theory and research in interactive multimedia, human computer interaction (HCI), cognitive psychology and learning. Learning outcomes center around selected readings, class discussion, multimedia production, and collaboration as a member of a student design team in the production of a goal-oriented multimedia product. Emphasis is placed on user-centered design, involving end users throughout the design, development, and evaluation of multimedia programs as well as the integration of research findings into design and formative evaluation (usability testing). The emphasis in this course is on new media, in particular 3-D, immersive or projected visualization applications (including those with haptics).

**Purpose/Goal:** The goal of this class is to examine the theoretical foundations and best practices involves in multimedia research and interface design. These investigations are

anchored in user-centered design and the methodology explored in the course is research to practice in usabilty testing and iterative program design.

| **Learning Outcomes** | **Evaluation/Assessment (See full descriptions in narrative below)** |
|---|---|
| • To learn and apply software design techniques, primarily user-centered design, to multimedia design process and product development. | Class Participation (in-class attend. & Discuss.&BlackBoard Discussion of readings and Groupwork)<br><br>20% |
| • To identify, understand and apply interface design principles to multimedia projects. | Multimedia Individual Project (SketchUp/Flash etc) 20% |
| • To read, analyze and interpret multimedia research studies and apply to design products | Research Article Critiques 20% |
| • Identify and evaluate interactive mult application as they relate to end-user or learning outcomes. | Homework (various application reviews) 15% |
| • To design and carry out a formative (beta) usability test with the product designed and developed in class. | Final Client Group Project & User Test 25% |

**Course Texts:**

Required:

Mayer, R.E. (2009). Multimedia Learning. New York: Cambridge University Press.

Tidwell, J. (2006) Designing Interfaces: Patterns for Effective Interaction Design. Sebastol, CA: O'Reilly Media

Course Packet of Readings: Available as Online Reserves from the Distance Learning Library. See contact information for the UK Distance Learning Library system below.

**Descriptions of Evaluation/Assessment of Learning Outcomes:**

Multimedia Individual Project:
The software application for this class will be those used to create 3-D interactive multimedia applications: Sketch-up, Alice and other freeware/open source software. You will be asked to complete several instructional applications. The pedagogical approach to learning these application skills will be incremental; project work should have direct application to your work, in other words, strive to develop a usable product – it is time consuming work and thus the end-product should be useful.

Homework: Occasionally, in the course of class work, it will be apparent that more practice or work on a skill is needed…*spontaneous* (but reasonable!) homework may be assigned to keep on track for achieving coursework objectives.

Research Article Critiques:

Written summaries of **5** research article assigned will be required. Use the Research Article Critique form as a guide. As students become proficient at this analytic procedure, each student will be asked to lead a class discussion of the article, focusing on key findings, their validity and application to design. The articles are available either as pdf files on the class Blackboard site OR using the UK online library DL Reserves.

Actual Client/ Group Project & User Test
As a member of a sub-group of the class design team, you will create/modify an interactive, multimedia product. The project will focus on multimedia content, organization/navigation and usability. Included in the project will be documentation describing the rationale for the project, role and outcomes for users, design process description/timeline, legal issues, detailed description/screen shots, user testing, and user documentation (how to use the program, etc.) Treat this project documentation as a research paper, with references where appropriate.

**Participation**
The success of this class will depend on a great deal of student participation. Attendance will be taken at each class and unexcused absences will result in a grade penalty. Specifically, after the first absence, the participation grade will be reduced by 10 points. If there is a second absence, the participation grade will be

reduced to 0. This means that the highest grade you could get with 2 absences would be a 90% and the highest grade you could get with 3 absences would be an 85%. If you were to miss more than 3 times, you will receive an additional letter grade deduction for each additional absence.

**DISTANCE LEARNING TECHNICAL REQUIREMENTS AND INFORMATION REGARDING ONLINE LIBRARY SERVICES/RESERVES ETC>**

**1. GENERAL TECHNICAL REQUIREMENTS FOR ALL DL COURSES:**
**Please check your connections and online access capabilities (speed, special plug-ins for reading online files, hardware and software). If you need HELP, email me or use UK HELP (see contact information below).**

**http://www.uky.edu/DistanceLearning/online/technical.php**

**2. The TEACHING & ACADEMIC SUPPORT SERVICES (TASC)**

**http://www.uky.edu/TASC/**

**3. DISTANCE LEARNING LIBRARY SERVICES**
**We have excellent library support and online reserve services. Please review these at**
**http://www.uky.edu/DistanceLearning/online/library.php**

**Ms. Carla Cantagallo is the DL librarian and is very helpful. Links to online reserves will provided as part of the course information in the Adobe Connect Meeting Room. Her phone contact is 800-828-0439 – Option #6.**

**4. ADOBE CONNECT MEETING ROOM – OUR ONLINE CLASSROOM**

**Class will meet virtually, each week using Adobe Connect. The class link is connect.uky.edu/EDC709/ -- Paste the link into your browser.**

**Check your Adobe Connect connection using this website:**

**http://ukconnect.acrobat.com/common/help/en/support/meeting_test.htm ) and webcam options, if desired.**

**Research** Readings Sample Bibliography – Select 5 for Critique

Bradshaw, A., Johari, A. (2002). Effects of white space in learning via the web. Journal of Educational Computing Research, 26(2), pp. 191-201.

Brinkerhoff, J., Klein, J., Koroghlanian (2001). Effects of overviews and computer experience on learning from hypertext. Journal of Educational Computing Research, 25(4), pp. 427-440.

Cates, W. (2002). Calculating production ratios fro computer-based multimedia instruction: Descriptive analysis of production data of experienced developers. Journal of Educational Computing Research, 26(2), pp. 109-131.

Gibbon, A.; Robertson, D.; Duffin, J.; Thompson, B. (2001). Effects of administering feedback following extended problem solving. Journal of Educational Computing Research, 25(4), pp. 417-426.

Herrington, J. and Oliver, R. (2000). An instructional design framework for authentic learning environments. Educational Technology Research and Development, 48(3), pp. 23-48.

Hoyles, C., Noss, R., Adamson, R. (2002). Rethinking the microworld idea. Journal of Educational Computing Research, 27(1&2), pp. 29-53.

Jonassen, D. and Hernandez-Serrano, J. (2002). Case-based reasoning and instructional design: Using stories to support problem solving. Educational Technology Research and Development, 50(2), pp. 65-77.

Jones, T. and Richey, R. (2000). Rapid prototyping methodology in action: A developmental study. Educational Technology Research and Development, 48(2), pp. 63-80.

Land, S. (2000). Cognitive requirements for learning with open-ended learning environments. Educational Technology Research and Development, 48(3), pp. 61-78.

Lin, X., Hmelo, C., Kinzer, C., Secules, T. (1999). Designing technology to support reflection. Educational Technology Research and Development, 47(3), pp. 43-62.

Locatis, C. and Al-Nuaim, H. (1999). Interactive technology and authoring tools: A historical review and analysis. Educational Technology Research and Development, 47(3), pp. 63-75.

Minogue, J. and Jones, M.B. (2006). Haptics in Education: exploring and untapped sensory modality. *Review of Education Research, 76*(3), 317-348.

Plass, J. and Salisbury, M. (2002). A living-system design model for web-based knowledge management systems. Educational Technology Research and Development, 50(1), pp. 35-57.

Reed, S.K. and Jazo, L. (2002). Using multiple representations to improve conceptions of average speed. Journal of Educational Computing Research, 27(1&2), pp. 147-166.

Saye, J.W. and Brush, T. (2002). Scaffolding critical reasoning about history and social issues in multimedia supported learning environments. Educational Technology Research and Development, 50(3), pp. 77-96.

Song, S., and Keller, J. (2001). Effectiveness of motivationally adaptive computer-assisted instruction on the dynamic aspects of motivation. Educational Technology Research and Development, 49(2), pp. 5-12.

Stevenson, I. (2002). Microworlds and direct manipulation environments: The case of Newtonian physics. Journal of Educational Computing Research, 27(1&2), pp. 167-183

Schedule (NOTE: this schedule is subject to change as progress on class work proceeds and timing may need to be adjusted to meet goals.)

**All classes, held each Thursday at 4:30-6:30 'LIVE' or asynchronously will be available in Adobe Connect: Classroom: http://connect.uky.edu/EDC609/ Password provided for first class via Blackboard email.**

EDC 609 – Course Content Schedule

| Date | Topic | Assignment/Readings (DUE the date listed by class time: 4 on Thursdays) |
|---|---|---|
| Week 1 | ○ | ▪ **Assignment Due**:<br>○ Bring in Poorly Designed Obje<br>▪ **In Class**<br>○ Learning in Complex Environme (lecture/discussion)<br>○ Activity Theory Perspectives (lecture/discussion)<br>○ Design Teams – Deciding on Pr<br>○ Selecting a Client for our Des |
| Week 2 | ▪ **In Class**<br>▪ Begin Sketch Up Draft of Poorly Designed Object<br>▪ Working with Open Source "Sketch-UP" - | ▪ **Assignment Due**: Readings Critique #1- |
| Week 3 | • Sketch Up usability | • **Assignment Due:**<br>• Google Sketch-up – In Class |
| Week 4 | • **In Class: Meet with Project Client – Develop project plan and assignments and client contact schedule collaboratively**<br>**Design Team Brainstorming –** | • **Assignment Due:** Multimedia Learning Section 2 |
| Week 5 | | • **Assignment Due:** Tidwell Chapters 1&2 |

| | |
|---|---|
| Week 6 | • **Assignment Due:** Tidwell<br>• **Formative Midterm Exam (on readings/coursework M/C)** |
| Week 7 | • **Assignment Due:** Readings Critique #2, Tidwell Chapter 3 |
| 03/14-19/11 | **SPRING BREAK FOR UK** |
| Week 9 | • **Assignment Due:** Tidwell Chapter 4 &5 Readings Critique #3<br>• **Design Project Team Work** |
| Week 10 | • **Assignment Due:** Readings Critique #4, "Jigsaw" for Tidwell Chapters 6, 7, & 8 |
| Week 11 | • **Design Team Work Day**<br>• **Assignment Due:** Readings Critique # 5 |
| Week 12 | • **Class Podcast and Discussion Topic on Blackboard** |
| Week 13 | • **In Class: Usability Testing** |
| Week 14 | • **In Class: Design Debriefing/Testing Modifications** |
| Week 15 | • **Assignment Due: Final Course Project Paper** |

EDC 609 - Interactive Multimedia Research & Design
Course Schedule - Spring, 2011

Dr. Joan Mazur
Office Hours: Thursday. 2-4 p.m. or by appointment
Phone: 859-257-4896 or 859-481-1413 (cell)
E-mail: jmazur@uky.edu (preferred method of communication!)

IMPORTANT INFORMATION FOR STUDENTS

Disability Services
If you need an accommodation for a disability that limits your ability to participate fully and meet the expectations of this class, you must first go through the University of Kentucky Disability Resources Center, located at #2 Alumni Gymnasium (257-2754).

RANK II MASTERS or RANK I in Instructional Design or the ISD Computer Science Endorsement
If you are taking this course as part of the Rank II Masters or Rank I in Instructional Design or the ISD Computer Science Endorsement, please inform Dr. Mazur (jmazur@uky.edu) so that you can be notified of important informational meetings each semester. This information is key in planning your Rank or Endorsement program and for purposes of monitoring and evaluating portfolio projects and requirements so that you may achieve these professional teaching certifications.

**Academic honesty** is expected in graduate work. Plagiarism and other forms of cheating are absolutely unacceptable. You may not use a paper or project that has previously been used in another class to satisfy coursework in this class, this practice is termed "self-plagiarism" and is unacceptable. Remember: to be guilty of plagiarism, intention is not required – therefore, if you directly quote ANYONE, you must use quotation marks AND provide the citation with page number! Should you plagiarize, no grades will be issued and your situation will be reported.

Standards

Course materials, activities and assessments address the Kentucky Teacher Technology Standard#10: "The teacher uses technology to support instruction; access and manipulate data; enhance professional growth and productivity; communicate and collaborate with colleagues, parents, and the community; and to conduct reseach/solve problems." Specficially performance indicators 1,2,3,4,5, and

7 are addressed. In addition, this course addresses National Educational Technology Standards (NETS) performance indicators for Teachers and Students developed by the International Society of Technology Educators (ISTE). ISTE has also developed the NCATE technology standards through which this College of Education, and many throughout the country, are certified.

**College Conceptual Framework**: Research, Reflection, Learning, Leading

Students in this course will demonstrate dispositions that characterize the conceptual framework of the college of education. The conceptual framework for the professional education unit at the University of Kentucky is guided by the theme, Research and Reflection for Learning and Leading. This theme is aligned closely with both the institutional vision and mission of UK and the vision and mission of the professional education unit. The theme reflects and guides how we approach preparation of professional educators within the context of a research extensive, land grant university.

Course Description

The course examines a variety of multimedia products, selected theory and research in interactive multimedia, human computer interaction (HCI), cognitive psychology and learning. Learning outcomes center around selected readings, class discussion, multimedia production, and collaboration as a member of a student design team in the production of a goal-oriented multimedia product. Emphasis is placed on user-centered design, involving end users throughout the design, development, and evaluation of multimedia programs as well as the integration of research findings into design and formative evaluation (usability testing). The emphasis in this course is on new media, in particular 3-D, immersive or projected visualization applications (including those with haptics).

Goal: To Examine the conceptual foundations and best practice of multimedia and interface design

Objectives:

- To learn and apply software design techniques, primarily user-centered design, to multimedia design process and product development.
- To identify, understand and apply interface design principles to multimedia projects.

- To read, analyze and interpret multimedia research studies and apply to design products .
- Identify and evaluate interactive multimedia application as they relate to end-user performance or learning outcomes.

- To design and carry out a formative (beta) usability test with the product designed and developed in class.

Course Texts:

Required:

Mayer, R.E. (2009). Multimedia Learning. New York: Cambridge University Press.

Tidwell, J. (2006) Designing Interfaces: Patterns for Effective Interaction Design. Sebastol, CA: O'Reilly Media

Evaluation:

| | |
|---|---|
| Multimedia Individual Project (SketchUp) | 20% |
| Homework (various interim skills assignments) | 15% |
| Research Article Critiques | 20% |
| Final Client Group Project & User Test | 25% |
| Class Participation (in-class attend. & Discuss.&BlackBoard Discussion and Groupwork) | 20% |

Multimedia Individual Project:
The software application for this class will be those used to create 3-D interactive multimedia applications: Sketch-up, Alice and other freeware/open source software. You will be asked to complete several instructional applications. The pedagogical approach to learning these application skills will be incremental; project work should have direct application to your work, in other words, strive to develop a usable product – it is time consuming work and thus the end-product should be useful.

Homework: Occasionally, in the course of class work, it will be apparent that more practice or work on a skill is needed…*spontaneous* (but reasonable!) homework may be assigned to keep on track for achieving coursework objectives.

Research Article Critiques:

Written summaries of **5** research article assigned will be required. Use the Research Article Critique form as a guide. As students become proficient at this analytic procedure, each student will be asked to lead a class discussion of the article, focusing on key findings, their validity and application to design. The articles are available either as pdf files on the class Blackboard site OR using the UK online library holdings

Actual Client/ Group Project & User Test

As a member of a sub-group of the class design team, you will create/modify an interactive, multimedia product. The project will focus on multimedia content, organization/navigation and usability. Included in the project will be documentation describing the rationale for the project, role and outcomes for users, design process description/timeline, legal issues, detailed description/screen shots, user testing, and user documentation (how to use the program, etc.) Treat this project documentation as a research paper, with references where appropriate.

Participation

The success of this class will depend on a great deal of student participation. Attendance will be taken at each class and unexcused absences will result in a grade penalty. Specifically, after the first absence, the participation grade will be reduced by 10 points. If there is a second absence, the participation grade will be reduced to 0. This means that the highest grade you could get with 2 absences would be a 90% and the highest grade you could get with 3 absences would be an 85%. If you were to miss more than 3 times, you will receive an additional letter grade deduction for each additional absence.

SNOW POLICY

If UK cancels evening classes, I will post an assignment on the BlackBoard web site by Tuesday at 5:00pm for you to complete before the next class session. In other words, we will have a 'virtual' class when we can't meet in person!

**Research** Readings Bibliography – Select 5 for Critique
EDC 609 – Spring 2010
Dr. Mazur

Bradshaw, A., Johari, A. (2002). Effects of white space in learning via the web. Journal of Educational Computing Research, 26(2), pp. 191-201.

Brinkerhoff, J., Klein, J., Koroghlanian (2001). Effects of overviews and computer experience on learning from hypertext. Journal of Educational Computing Research, 25(4), pp. 427-440.

Cates, W. (2002). Calculating production ratios fro computer-based multimedia instruction: Descriptive analysis of production data of experienced developers. Journal of Educational Computing Research, 26(2), pp. 109-131.

Gibbon, A.; Robertson, D.; Duffin, J.; Thompson, B. (2001). Effects of administering feedback following extended problem solving. Journal of Educational Computing Research, 25(4), pp. 417-426.

Herrington, J. and Oliver, R. (2000). An instructional design framework for authentic learning environments. Educational Technology Research and Development, 48(3), pp. 23-48.

Hoyles, C., Noss, R., Adamson, R. (2002). Rethinking the microworld idea. Journal of Educational Computing Research, 27(1&2), pp. 29-53.

Jonassen, D. and Hernandez-Serrano, J. (2002). Case-based reasoning and instructional design: Using stories to support problem solving. Educational Technology Research and Development, 50(2), pp. 65-77.

Jones, T. and Richey, R. (2000). Rapid prototyping methodology in action: A developmental study. Educational Technology Research and Development, 48(2), pp. 63-80.

Land, S. (2000). Cognitive requirements for learning with open-ended learning environments. Educational Technology Research and Development, 48(3), pp. 61-78.

Lin, X., Hmelo, C., Kinzer, C., Secules, T. (1999). Designing technology to support reflection. Educational Technology Research and Development, 47(3), pp. 43-62.

Locatis, C. and Al-Nuaim, H. (1999). Interactive technology and authoring tools: A historical review and analysis. Educational Technology Research and Development, 47(3), pp. 63-75.

Minogue, J. and Jones, M.B. (2006). Haptics in Education: exploring and untapped sensory modality. *Review of Education Research, 76*(3), 317-348.

Plass, J. and Salisbury, M. (2002). A living-system design model for web-based knowledge management systems. Educational Technology Research and Development, 50(1), pp. 35-57.

Reed, S.K. and Jazo, L. (2002). Using multiple representations to improve conceptions of average speed. Journal of Educational Computing Research, 27(1&2), pp. 147-166.

Saye, J.W. and Brush, T. (2002). Scaffolding critical reasoning about history and social issues in multimedia supported learning environments. Educational Technology Research and Development, 50(3), pp. 77-96.

Song, S., and Keller, J. (2001). Effectiveness of motivationally adaptive computer-assisted instruction on the dynamic aspects of motivation. Educational Technology Research and Development, 49(2), pp. 5-12.

Stevenson, I. (2002). Microworlds and direct manipulation environments: The case of Newtonian physics. Journal of Educational Computing Research, 27(1&2), pp. 167-183

Schedule (NOTE: this schedule is subject to change as progress on class work proceeds and timing may need to be adjusted to meet goals.)

EDC 609 – Course Content Schedule

| Date | Topic | Assignment/Readings (DUE the date listed by class time: 4 on Thursdays) |
|---|---|---|
| 01/27/11 | ○ | ▪ **Assignment Due**:<br>○ Bring in Poorly Designed Obje<br>▪ **In Class**<br>○ Learning in Complex Environme (lecture/discussion)<br>○ Activity Theory Perspectives (lecture/discussion)<br>○ Design Teams – Deciding on Pr<br>○ Selecting a Client for our Des |
| 02/ 03/11 | ▪ **In Class**<br>▪ Begin Sketch Up Draft of Poorly Designed Object<br>▪ Working with Open Source "Sketch-UP" - | ▪ **Assignment Due**: Readings Critique #1- |
| 02/10/11 | | • **Assignment Due:**<br>• Google Sketch-up – In Class |
| 02/17/11 | • **In Class: Meet with Project Client – Develop project plan and assignments and client contact schedule collaboratively**<br>**Design Team Brainstorming** – | • **Assignment Due:** Multimedia Learning Section 2 |
| 02/24/11 | | • **Assignment Due:** Tidwell Chapters 1&2 |
| 03/03/11 | | • **Assignment Due:** Tidwell<br>• **Formative Midterm Exam (on readings/coursework M/C)** |
| 03/10/11 | | • **Assignment Due:** Readings Critique #2, Tidwell Chapter 3 |

| | |
|---|---|
| 03/14-19/11 | **SPRING BREAK FOR UK** |
| 03/24/11 | • **Assignment Due:** Tidwell Chapter 4 &5 Readings Critique #3<br>• **Design Project Team Work** |
| 03/31/11 | • **Assignment Due:** Readings Critique #4, "Jigsaw" for Tidwell Chapters 6, 7, & 8 |
| 04/07/11 | • **Design Team Work Day**<br>• **Assignment Due:** Readings Critique # 5 |
| 04/14/11 | • **Class Podcast and Discussion Topic on Blackboard**<br>• **No F2F class today (Mazur at AERA)** |
| 04/21/11 | • **In Class: Usability Testing** |
| 04/28/11 | • **In Class: Design Debriefing/Testing Modifications** |
| 05/02/11 | • **Assignment Due: Final Course Project Paper** |