ECI 722: Theory and Research in Distance Education

In Workflow

1. 13ECI Grad Head (jklee@ncsu.edu)
2. CED CC Coordinator GR (mmmartin@ncsu.edu)
3. CED CC Meeting GR (mmmartin@ncsu.edu)
4. CED CC Chair GR (aclark@ncsu.edu)
5. CED Final Review GR (mmmartin@ncsu.edu)
6. CED Dean GR (ellen_vasu@ncsu.edu)
7. kmoliver (kevin_oliver@ncsu.edu)
8. ABGS Coordinator (mlnosbis@ncsu.edu)
9. kmoliver (kevin_oliver@ncsu.edu)
10. ABGS Meeting (mlnosbis@ncsu.edu)
11. ABGS Chair (mlnosbis@ncsu.edu)
12. Grad Final Review (mlnosbis@ncsu.edu)
13. PeopleSoft (none)

Approval Path

1. Sat, 18 Mar 2017 15:41:35 GMT
   John Lee (jklee): Approved for 13ECI Grad Head
2. Tue, 21 Mar 2017 18:32:35 GMT
   Mary Morris (mmmartin): Approved for CED CC Coordinator GR
3. Wed, 22 Mar 2017 13:08:01 GMT
   Mary Morris (mmmartin): Approved for CED CC Meeting GR
   Aaron Clark (aclark): Approved for CED CC Chair GR
5. Wed, 22 Mar 2017 14:05:13 GMT
   Mary Morris (mmmartin): Approved for CED Final Review GR
   Ellen Vasu (ellen_vasu): Approved for CED Dean GR
7. Sat, 08 Apr 2017 14:36:13 GMT
   Kevin Oliver (kevin_oliver): Approved for kmoliver
8. Mon, 10 Apr 2017 13:51:15 GMT
   Melissa Nosbisch (mlnosbis): Approved for ABGS Coordinator
9. Tue, 18 Apr 2017 16:37:31 GMT
   Kevin Oliver (kevin_oliver): Approved for kmoliver
10. Thu, 20 Apr 2017 12:41:22 GMT
    Melissa Nosbisch (mlnosbis): Approved for ABGS Meeting

New Course Proposal

Date Submitted: Sat, 18 Mar 2017 15:09:30 GMT

Viewing: ECI 722 : Theory and Research in Distance Education

Changes proposed by: kmoliver

Change Type

Major

Course Prefix

ECI (Curriculum and Instruction)
Course Number
722

Cross-listed Course
No

Title
Theory and Research in Distance Education

Abbreviated Title
Theory & Rsrch in Dist Ed

College
College of Education

Academic Org Code
Curriculum, Instruction & Counselor (13ECI)

CIP Discipline Specialty Number
13.0301

CIP Discipline Specialty Title
Curriculum and Instruction.

Term Offering
Spring Only

Year Offering
Offered Every Year

Effective Date
Spring 2017

Previously taught as Special Topics?
Yes

Number of Offerings within the past 5 years
2

<table>
<thead>
<tr>
<th>Course Prefix/Number</th>
<th>Semester/Term Offered</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECI 719-602</td>
<td>Spring 2017</td>
<td>10</td>
</tr>
<tr>
<td>ECI 719-601</td>
<td>Spring 2015</td>
<td>7</td>
</tr>
</tbody>
</table>

Course Delivery
Distance Education (DELTA)
Online (Internet)

Grading Method
Graded/Audit

Credit Hours
Course Length
16 weeks

Contact Hours (Per Week)

<table>
<thead>
<tr>
<th>Component Type</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
</tr>
</tbody>
</table>

Course Is Repeatable for Credit
No

Instructor Name
Kevin Oliver

Instructor Title
Associate Professor

Grad Faculty Status
Full

DELTA/Online Enrollment:
Open when course_delivery = distance OR course_delivery = online OR course_delivery = remote

<table>
<thead>
<tr>
<th>Delivery Format</th>
<th>Per Semester</th>
<th>Per Section</th>
<th>Multiple Sections?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLB</td>
<td>15</td>
<td>15</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Course is expected to draw students from Department of Teacher Education and Learning Sciences doctoral programs, specifically the program area of study in Learning Design and Technology.

Course Prerequisites, Corequisites, and Restrictive Statement
None

Is the course required or an elective for a Curriculum?
Yes

Which Curricula are Affected?

<table>
<thead>
<tr>
<th>SIS Program Code</th>
<th>Program Title</th>
<th>Required or Elective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>13TELSLDT</td>
<td>Learning Design and Technology</td>
<td>Elective</td>
</tr>
</tbody>
</table>

Catalog Description
Introduction to distance education foundations, models, and underlying theories. Analysis of distance education research findings, research and evaluation methods, and management in varied settings--virtual schools, higher education, continuing education, and corporate e-learning. Application of distance education standards and research-based findings to the design of original course plans and materials prototypes, including appropriate recommendations for online teaching and community building, online student support, and online student assessment.

Justification for new course:
Faculty teaching in the new doctoral program area of study (PAS) in Learning Design and Technology are designing new doctoral-level courses to support the PAS. Previously, ECI 716 (instructional design) was the only doctoral-level course for this PAS, thus the need to develop new doctoral-
level courses to attract quality candidates is pressing. One of the specialty areas we are hoping to develop new courses for is in the area of distance education. The College of Education at large needs more courses in this expanding area of education that crosses all sectors. Many of our doctoral students are choosing to conduct research in distance education (virtual schools, MOOCs, e-learning for industry), and they will benefit from a course that examines existing theory and research in DE, research methods employed to study DE, and best practices in designing effective DE.

**Does this course have a fee?**
No

**Consultation**

<table>
<thead>
<tr>
<th>College(s)</th>
<th>Contact Name</th>
<th>Statement Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Education</td>
<td>Aaron Clark</td>
<td>It was suggested we consult with Aaron Clark in Tech Ed, who indicated, “Kevin, I do not see a conflict with this proposed course, our TED 534 is intended for those that teach technical and engineering education.”</td>
</tr>
</tbody>
</table>

**Instructional Resources Statement**

Dr. Oliver will be teaching this course as part of his regular 2-2 course load, every spring. Three new faculty have been added to the digital learning/learning design technology program area in the past three years, allowing Dr. Oliver to give some of his prior 500-level courses to new faculty, and develop these new courses that have been needed by the program for some time.

**Course Objectives/Goals**

Doctoral students will have an opportunity to discuss DE theory and research, as well as appropriate methods for researching DE.

Doctoral students will practice the design and peer critique of DE materials with emerging Web 2.0 tools and the campus Moodle LMS platform.

**Student Learning Outcomes**

- The student will present a rationale for DE, citing reasons why educators are using the mode, as well as advantages and potential disadvantages.
- The student will describe different audiences served by DE.
- Students will define distance education, give examples, and differentiate between the related terms of DE, online learning, e-learning, and virtual schooling.
- Students will describe the different historical eras or "waves" of distance education, often driven by the available technology of a given time period, as well as predict future trends in DE, given emerging technologies.
- Students will discuss theoretical positions that have informed DE over the past several decades (e.g., constructivism, connectivism, community of inquiry) and outline the implications of those theories on instructional design and setting up effective online learning experiences.
- Students will take a theoretical position and describe how it informs the design of an original distance lesson developed for this course.
- Students will identify sources of research on DE, including DE associations, conferences, and journals.
- Students will describe key areas of research previously conducted on DE, as well as future areas of research need.
- Students will read, analyze, and discuss meta-analyses summarizing the considerable, existing body of research on DE, extracting best practices and identifying future research directions and questions.
- Students will apply research-based, best practice recommendations to online course plans and materials prototypes.
- Students will describe common instructional design procedures undertaken by designers and instructors of DE courses (e.g., analyzing learners, providing objectives, providing opportunities for content and peer interaction, providing opportunities for feedback), and reflect on appropriate design procedures for developing their own DE lesson.
• Students will examine existing DE materials to identify examples of good and poor visual design that can impact on cognitive processing, and original materials designed for their own lesson will exhibit good principles of design.

• Students will describe common pitfalls to avoid around intellectual property and copyright law in DE design.

• Students will describe past, existing, and emerging technologies applied to DE, and make recommendations for appropriate technologies to meet specified instructional challenges for their own and peers’ lessons.

• Students will identify best practices in online teaching drawing from standards and recommendations for building online communities, using asynchronous and synchronous communication platforms appropriately, creating effective interactions, and building meaningful assessment and feedback into an online course.

• Students will describe strategies for assessing student readiness for online learning.

• Students will describe strategies for supporting the success of students in DE environments in different categories of support, including: administrative/logistical, informational/technical, metacognitive, and personal.

• Students will describe types of assessments commonly employed in DE (e.g., formative self-assessments, summative projects of an authentic nature, group projects or discussions, peer assessments), and design appropriate original assessments for their own lesson using emerging technology tools.

• Students will describe emerging technology systems and tools that DE instructors can use for assessment.

• Students will describe different models of evaluation (e.g., Fitzpatrick, Guskey, Scriven) that can help to inform appropriate things to look for in an evaluation (e.g., reactions, learning, value).

• Students will describe different types of evaluations that can be conducted on DE courses and programs (e.g., input, process, output, and impact), indicating appropriate data sources or writing appropriate questions to inform each type of evaluation.

• Students will describe quality factors that accrediting organizations look for in effective distance programs (e.g., teacher-student interaction, innovative uses of technology, student support).

• Students will describe some of the many management challenges faced by leaders of distance learning organizations, including: developing a content strategy, supporting faculty development, managing change and innovation, ensuring accountability and quality, and managing costs and funding.

• Students will contrast traditional research methods employed to study DE learning environments and learning (e.g., survey, discourse analysis, case study, focus group), with emerging research methods (e.g., learning analytics, social network analysis), and discuss methods appropriate to the study of their own DE activities.

• Students will review and make recommendations for improving content, interactions, and formative assessments in sample DE units.

• Students will reflect on lessons learned in the course, insights/growth, and challenges/successes.

---

**Student Evaluation Methods**

<table>
<thead>
<tr>
<th>Evaluation Method</th>
<th>Weighting/Points for Each</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discussion</strong></td>
<td>16 course points</td>
<td>16 weekly asynchronous FlipGrid discussions with peer commenting provide an opportunity to analyze and discuss meta-analyses of DE research</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td>5 course points</td>
<td>Content participation is based on Moodle analytics that indicate whether or not students logged into the course LMS frequently, participated in assigned activities, and accessed course materials.</td>
</tr>
</tbody>
</table>
Quiz  
5 course points  
12 self-check quizzes in Moodle provide students with an opportunity to self-assess their understanding of assigned course texts.

Project  
64 course points  
6 projects provide students with an opportunity to develop DE materials using recommended tools, and a capstone project provides students with an opportunity to structure a DE lesson within the Moodle LMS complete with content, interactions, and assessments.

Other  
10 course points  
Students will peer review one another’s capstone projects, providing an opportunity to practice evaluation techniques and learn from one another’s DE designs.

**Topical Outline/Course Schedule**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Time Devoted to Each Topic</th>
<th>Activity</th>
</tr>
</thead>
</table>
| (Session 1) Course Introduction, DE Rationale | 1 week | Read: Simonson (Ch. 1)  
Take: Quiz 1  
Participate: FlipGrid 1 |
| (Session 2) DE Definitions and Historical Eras/Waves | 1 week | Read: Simonson (pp. 31-40, 52-57), Waves, Aoki (pp. 182-185), Moore  
Take: Quiz 2  
Participate: FlipGrid 2  
Capstone Design Doc: Unit Description, Objectives |
| (Session 3) DE Research: What We Know and Need to Know | 1 week | Read: Simonson (Ch. 3), Oncu, Zawacki, and Simonson articles  
Take: Quiz 3  
Project 1: Research Infographic  
Capstone Design Doc: Research Informing Your Unit |
| (Session 4) Theories of DE | 1 week | Read: Simonson (pp. 40-52), Ally, Anderson  
Take: Quiz 4  
Participate: FlipGrid 3  
Capstone Design Doc: Theoretical Implications |
| (Session 5) Instructional Design for DE | 1 week | Read: Simonson (Ch. 5), Ascough, Caplan, Grady, SOU  
Take: Quiz 5  
Participate: FlipGrid 5  
Project 2: Content Curation  
Capstone Design Doc: ID Applied |
| (Session 6) Planning DE Materials, Intellectual Property | 1 week | Read: Simonson (Ch. 8, 10), APS, COL (pp. 101-148), Kalyuga, Mayer  
Take: Quiz 6  
Participate: FlipGrid 6  
Project 3: Whiteboard Lesson Development  
Capstone Design Doc: Created/Selected Materials |
| (Session 7) DE Technologies, Modes | 1 week | Read: Simonson (Ch. 4), Conole, Burns, Velestianos  
Take: Quiz 7  
Participate: FlipGrid 7  
Capstone Design Doc: Technologies |
| (Session 8) DE Teaching | 1 week | Read: Simonson (Ch. 6), Bernard, Dunlap, Murphy, Roberts  
Take: Quiz 8  
Participate: FlipGrid 8  
Project 4: Screencast Lesson Development |
(Session 9) DE Community Building 1 week
Read: Burns, Rovai, Ryman
Take: Quiz 9
Participate: FlipGrid 9
Capstone Design Doc: Community Building

(Session 10) DE Student Characteristics and Support 1 week
Read: Simonson (Ch. 7), Baxter, Brindley, Burns, Stoter
Take: Quiz 9
Participate: FlipGrid 10
Capstone Design Doc: Student Support

(Session 11) Assessment in DE 1 week
Read: Simonson (Ch. 9), Burns, Eddy, Kim, Prineas
Take: Quiz 11
Participate: FlipGrid 11
Project 5: Formative Assessment Project
Capstone Design Doc: Assessment Strategies

(Session 12) Evaluation and Quality Monitoring of DE 1 week
Read: Simonson (Ch. 12), Burns, Lockee, McGorry, Parker, Rovai
Take Quiz 12
Participate: FlipGrid 12
Capstone Design Doc: Assessment Strategies

(Session 13) Managing DE Organizations 1 week
Read: Simonson (Ch. 11), Beaudoin, Burns, Hicks, Nworie, Richardson
Take: Quiz 13
Participate: FlipGrid 13
Capstone LMS: Build Out Your Unit Content

(Session 14) DE Research: Methods for Studying DE 1 week
Read: Gunawardena, Jeong, Saba, Shea, Ziegler
Take: Quiz 14
Participate: FlipGrid 14
Project 6: Social Network Analysis
Capstone LMS: Build Out Your Unit Content
Interactions and Student-Student Interactions

(Session 15) Peer Reviews 1 week
Participate: FlipGrid 15
Capstone: Peer Reviews

(Session 16) Wrap-Up 1 week
Participate: FlipGrid 16
Capstone Design Doc: Revision Statement

Syllabus
ECI_722.docx

Additional Documentation

Additional Comments

mionsbis 3/22/2017: No overlapping courses, no consultation required.
1) Are there too many component types listed? It seems appropriate to list Lecture only in the “Contact Hours” field. Note also that this should be contact hours for week, so the numbers listed seem too high for a 3 credit course.
2) I edited prerequisites to “None” because 700-level courses are already restricted to graduate standing only.
3) Include price of textbooks on the syllabus.
4) Evaluation methods on the CIM form should match the projects/assessments listed on the syllabus.

pjharrie - 4/3/17 - given that the previous enrollment is considerably lower than what is projected, why is there the sense that the TELS students will now enroll in this course when they haven't previously? The outcomes are a bit strangely stated - they should be phrased a bit more conditionally as there no guarantee that every student will obtain all of the them...

ABGS Reviewer Comments:
- The course will be offered exclusively online, but states that it will attract doctoral students. Is the TELS doctoral program available online? At least in our department/College, PhD students have residency requirements and are generally discouraged from taking online courses.

Course Reviewer Comments
jklee (Mon, 16 Jan 2017 12:45:04 GMT): Please review the syllabus, specifically the link on the Academic Integrity statement. I believe the correct link to include in the syllabus is https://policies.ncsu.edu/policy/pol-11-35-01 Also please check the contact hours. I see that the hours add to nine, which makes sense, but is the distribution of hours correct. Will students have 6 hours of lecture, lab and discussion per week?

mmmartin (Tue, 17 Jan 2017 20:05:05 GMT): Rollback: Edits to be reviewed with DGP Jessica DeCuir-Gunby

kmoliver (Sat, 08 Apr 2017 14:34:16 GMT): Per comments from minosbis, I updated the following: 1) listed "lecture" as the only component type and reduced the number of contact hours; 2) no change necessary; 3) added the textbook price to the syllabus; 4) verified that the projects/assignments listed on syllabus do match the evaluation methods listed on the CIM form. Per comments from pjarrie, 1) reduced anticipated number of students from 20 to 15--expect this course to attract enrollees once it is moved out of "special topics" and advertised more broadly across college as distance ed is a popular research topic in education, we are only offering the course once per year, and we've never advertised it outside of our department; 2) Not sure what is meant by rephrasing objectives to be "conditional" as this mastery-oriented course with opportunities to revise and resubmit work per syllabus indicates students "will discuss, describe, define, identify, etc..." and isn't that appropriate? Were there specific objectives that stood out as needing to be "conditional," as these seem appropriate to me?

kmoliver (Tue, 18 Apr 2017 16:37:28 GMT): Responding to ABGS reviewer comment: The TELS doctoral program in Learning Design and Technology is not online, however we do anticipate some of the students in our fully online master's program by the same name will be interested in taking this course, so online is the preferred format to allow these remote students to take this course as well. Regarding residency, I'm not aware of any problems with our doc students taking online courses and having that effect their residency. I believe residency is just a matter of continuous enrollment over a certain number of semesters, regardless of online versus face-to-face status.

Key: 13350