

2013-2014 LONG SIGNATURE SHEET



UNC CHARLOTTE

Proposal Number: ITIS 12-14-13

Proposal Title: New graduate course ITIS 6011/8011 Interaction Design Studio

Originating Department: Software and Information Systems

TYPE OF PROPOSAL: UNDERGRADUATE _____ GRADUATE X UNDERGRADUATE & GRADUATE _____
 (Separate proposals sent to UCCC and Grad. Council)

DATE RECEIVED	DATE CONSIDERED	DATE FORWARDED	ACTION	SIGNATURES
10-7-13	10-14-13	^{10 MLM} 10-14-13	Approved	DEPARTMENT CHAIR <i>Mary Lou Maher</i> Dr. Mary Lou Maher
12-16-13	12-19-13	1-8-14	Approved	COLLEGE CURRICULUM COMMITTEE CHAIR <i>Mary Lou Maher</i> Dr. Srinivas Akella
1-8-14	1/10/14	1-10-14	Approved	COLLEGE FACULTY CHAIR (if applicable) <i>Kalpathi Subramanian</i> Dr. Kalpathi Subramanian
1/10/14	1/10/14	10 Jan 14	Approved	COLLEGE DEAN <i>Richard Lejk</i> Dr. Richard Lejk
			Approved	GENERAL EDUCATION (if applicable; for General Education courses) (print name here:)
			Approved	UNDERGRADUATE COURSE & CURRICULUM COMMITTEE CHAIR (for undergraduate courses only)
	2-4-14	8-20-14	Approved	GRADUATE COUNCIL CHAIR (for graduate courses only) <i>Alan R. Freitag</i> ALAN R. FREITAG
				FACULTY GOVERNANCE ASSISTANT (Faculty Council approval on Consent Calendar)
				FACULTY EXECUTIVE COMMITTEE (if decision is appealed)

NEW GRADUATE AND UNDERGRADUATE
COURSE PROPOSAL

~~ITIS 09-10-13~~

FROM: DEPARTMENT OF SOFTWARE AND INFORMATION SYSTEMS

TITLE: INTERACTION DESIGN STUDIO ITIS 6011/8011

A. PROPOSAL SUMMARY AND CATALOG COPY:

1. SUMMARY:

The Department of Software and Information Systems proposes to create new courses, ITIS 6011 Interaction Design Studio and ITIS 8011 Interaction Design Studio. The courses focus on a design studio approach to teaching interaction design.

2. PROPOSED CATALOG COPY:

ITIS 6011. Interaction Design Studio. (4) Prerequisites: Graduate standing and permission of department. This course is a studio approach to teaching topics in interaction design. Aspects of interaction design taught in the studio include: gesture-based interaction, tangible interaction, large public display interaction, tabletop interaction, multi-touch tablet interaction, and human-robot interaction. In this course students will learn how to apply a theoretical understanding of some aspect of interaction design to the study of existing designs and the development of a new design. Outcomes include writing a literature review about interaction design, executing users studies and critiques of existing designs, and developing and implementing a new interaction design for a specific purpose. This course is repeatable for credit. (*Spring*)

ITIS 8011. Interaction Design Studio. (4) Prerequisites: Graduate standing and permission of department. This course is a studio approach to teaching topics in interaction design. Aspects of interaction design taught in the studio include: gesture-based interaction, tangible interaction, large public display interaction, tabletop interaction, multi-touch tablet interaction, and human-robot interaction. In this course students will learn how to apply a theoretical understanding of some aspect of interaction design to the study of existing designs and the development of a new design. Outcomes include writing a literature review about interaction design, executing users studies and critiques of existing designs, and developing and implementing a new interaction design for a specific purpose. This course is repeatable for credit. (*Spring*)

B. JUSTIFICATION

1. Need

Interaction design is becoming increasingly important part of software systems. This course integrates knowledge of software development with human computer interaction in a comprehensive design project that starts with the conception of the project through its implementation and evaluation. Design methods for including user studies before, during and after software development are introduced and practiced.

2. Prerequisites/Corequisites:

1. Graduate standing.
2. Permission of department.

3. Course numbering:

ITIS 6011 is intended to be a Masters level course, ITIS 8011 is intended to be a PhD level course for students in Software and Information Systems and Computer Science.

4. Effect on scope, quality, and efficiency:

The proposed courses will broaden the scope of the software and information systems curriculum to include a design studio in interaction design. These crucial methods and topics are destined to be even more important for our graduates to understand. Future IT professionals must understand the importance of interaction design as an integral part of software development and interactive technologies.

C. IMPACT

1. Students served:

These courses provide graduate majors in information technology with an option for an elective course that would enhance their value to potential employers.

2. Effect on existing courses and curricula:

- a. ITIS 6011/8011 will be offered in the spring.
- b. The content/frequency of other courses will not be affected.
- c. The anticipated enrollment is 10 students for ITIS 6011 and 5 for ITIS 8011.
- d. Impact on enrollments in other elective courses will be minimal as it will be an elective course and the department offers a set number of electives each year
- e. The proposed topics have not been covered in existing courses.
- f. Other areas of catalog copy affected: The proposed courses should be listed as elective options.

D. RESOURCES REQUIRED TO SUPPORT PROPOSAL

1. Personnel

- a. Specify requirements for new faculty, part-time teaching, student assistant and/or increased load on present faculty.

No new faculty members are needed in order to teach these courses.

- b. List by name qualified faculty members interested in teaching the course(s).

In general, research faculty in human computer interaction areas are qualified to offer these courses. In particular, Mary Lou Maher, Celine Latulipe, Heather Lipford, and Khai Truong are interested in offering these courses.

2. Physical Facility

No new physical facilities are needed.

3. Equipment and Supplies

No new equipment and supplies are needed to teach the courses.

4. Computer

Specify requirements for computer usage by students and/or faculty, and include an assessment of the adequacy of computing resources by Computing Services.

Students will use the computing facilities in the InDe Lab (currently in WH 308) to complete their course projects and assignments. These facilities are adequate for the course.

5. Audio-Visual

Specify requirements for audio and/or visual equipment and media production services from Media Services.

This course requires only the use of existing presentation equipment. No additional audio/visual equipment or services are needed.

6. Other Resources

Specify and estimate cost of other new/added resources required, e.g., travel, communication, printing and binding.

This course does not require any additional resources.

7. Funding Sources

Indicate source(s) of funding for new/additional resources required to support this proposal.

This course does not require any additional resources.

E. CONSULTATION WITH THE LIBRARY AND OTHER DEPARTMENTS OR UNITS

1. Library Consultation

Library consultation was initiated on October 4, 2013 and completed on October 7, 2013.

2. Consultation with other departments or units

Consultation with the department of Computer Science was initiated on December 4, 2013 and completed on December 5, 2013.

F. INITIATION AND CONSIDERATION OF THE PROPOSAL

1. Originating Unit

Approved by the Software and Information Systems Faculty on December 19, 2013 and by the College of Computing and Informatics faculty on December 6, 2013.

2. Other Considering Units

Consultation with the Department of Computer Science was completed December 5, 2013.

G. ATTACHMENTS

- 1. ITIS 6011/8011 syllabus**
- 2. Library Consultation**
- 3. Computer Science consultation**

Consultation on Library Holdings

To: Mr. Bruce Long

From: Dr. Melanie Sorrell

Date: 10/7/2013

Subject: ITIS 4011/6011/8011 Interaction Design Studio

Summary of Librarian's Evaluation of Holdings:

Evaluator: Dr. Melanie Sorrell Date: 10/7/2013

Check One:

- 1. Holdings are superior
- 2. Holdings are adequate
- 3. Holdings are adequate only if Dept. purchases additional items.
- 4. Holdings are inadequate

Comments:

This is a proposal for a new undergraduate and graduate level course, which includes a literature review assignment and scholarly article development. Library holdings should be adequate to support student research for this course (see list of items held by subject heading below). Students will have access to relevant databases including INSPEC, Science Direct, Compendex, ACM Digital Library, IEEE Xplore Digital Library, and the Wiley Online Library.

LC Subject Heading	Total items held
Human-computer interaction	284 monographs
Software engineering	532 monographs
System design	370 monographs
Robots -- Control systems	137 monographs
ACM transactions on computer-human interaction	Journal title
Journal of field robotics	Journal title
International journal of human-computer interaction	Journal title

Sorrell

Evaluator's Signature

10/7/2013

Date

From: [Lu, Aidong](#)
To: [Long, Bruce](#)
Subject: RE: Consultation request for ITIS 6011/8011 graduate course proposal
Date: Thursday, December 05, 2013 2:07:26 PM

Hello Bruce,
The CS graduate committee supports the course proposal.
Thanks,
Aidong

From: Long, Bruce
Sent: Wednesday, December 04, 2013 1:22 PM
To: Lu, Aidong
Subject: Consultation request for ITIS 6011/8011 graduate course proposal

Hi Aidong,

SIS is proposing a graduate course in Interaction Design (see attached). We would appreciate comments from the Computer Science department as part of the consultation process.

Thanks,
Bruce

Bruce Long
Assistant Chair & Director of Undergraduate Programs
Software and Information Systems Department
College of Computing and Informatics
University of North Carolina at Charlotte
9201 University City Blvd.
Charlotte, NC 28223
[704-687-8441](tel:704-687-8441)

ITIS 6011, ITIS 8011 Interaction Design Studio

Syllabus

Course Description

This course is a studio approach to teaching topics in interaction design. Aspects of interaction design taught in the studio include: gesture-based interaction, tangible interaction, large public display interaction, tabletop interaction, multi-touch tablet interaction, and human-robot interaction. For each studio semester, a focus for interaction design will provide the theoretical and practical basis for designing a new interaction design application. In this course students will learn how to apply a theoretical understanding of some aspect of interaction design to the study of existing designs and the development of a new design. Outcomes include writing a literature review of the theoretical basis for the interaction design, executing users studies and critiques of existing designs, and developing and implementing a new interaction design for a specific purpose. This course is repeatable for credit.

Prerequisite: Graduate standing and permission of department

4 credit hours.

Topics

- Interaction design principles
- Role of gesture, touch, and grasping in the design of software applications
- Design methods for interaction design
- Cognitive studies of users with the “think aloud” method
- Frameworks and critiques for interaction design
- Design examples and development of new designs for interactivity
- User studies for ease of use and cognitive impact

Learning Objectives

- Experiences with interaction designs that respond to the particular focus, such as tangible interaction
- An understanding of how different input devices respond to gesture or touch or speech to generate input events
- Knowledge of design principles and methods for interaction design
- Experience in a variety of design methods relevant to interaction design
- Experience in developing a design prototype and programming for an interaction design for a specific input device
- Ability to write a scholarly article on interaction design

Instructional Method

The course will be taught as a design studio: 3 hours per week in a studio setting that includes demonstrations, lectures, tutorials, team design meetings, and design critique. Students are expected to meet for at least one hour per week outside scheduled classroom time to collaborate on design projects. In addition, students should anticipate spending at least 8 hours on out-of-class work per week.

Textbook

There is no textbook for this course. A set of required readings will be made available to students.

Assignments and Assessment of Final Grade

- 5% Engagement: Attendance in class/studio and questions/answers on MOODLE
- 15% User Studies Report
- 15% Design Critique Report
- 50% Preliminary and Final Design Reports
- 5% Peer Evaluation Report
- 10% Scholarly article

University and College Policies

Code of Student Responsibility: The *UNC Charlotte Code of Student Responsibility* (the Code) sets forth certain rights and responsibilities in matters of student discipline. The Code defines these responsibilities and guarantees you certain rights that ensure your protection from unjust imposition of disciplinary penalties. You should familiarize yourself with the provisions and procedures of the Code” (Introductory statement from the UNC Charlotte brochure about the Code of Student Responsibility). The entire document may be found at this Internet address: <http://legal.uncc.edu/policies/up-406>

Academic Integrity: All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Students are expected to submit their own work, either as individuals or contributors to a group assignment. Definitions and examples of plagiarism and other violations are set forth in the Code. The Code is available from the Dean of Students Office or online at: <http://www.legal.uncc.edu/policies/ps-105.html>

Course Credit Workload: This 4-credit course requires three hours of classroom or direct faculty instruction, 1 hour of student meeting time not scheduled in a classroom, and 8 hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: programming in SAS, required reading, library research, written assignments, and studying for quizzes and exams.

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/up-501>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

Diversity Statement: UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

All students are required to abide by the UNC Charlotte Sexual Harassment Policy (<http://legal.uncc.edu/policies/up-502>) and the policy on Responsible Use of University Computing and Electronic Communication Resources (<http://legal.uncc.edu/policies/up-307>). Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

ITIS 4011 Interaction Design Studio

Syllabus

Course Description

This course is a studio approach to teaching topics in interaction design. Aspects of interaction design taught in the studio include: gesture-based interaction, tangible interaction, large public display interaction, tabletop interaction, multi-touch tablet interaction, and human-robot interaction. For each studio semester, a focus for interaction design will provide the theoretical and practical basis for designing a new interaction design application. In this course students will learn how to apply a theoretical understanding of some aspect of interaction design to the study of existing designs and the development of a new design. Outcomes include writing a literature review of the theoretical basis for the interaction design, executing users studies and critiques of existing designs, and developing and implementing a new interaction design for a specific purpose. This course is repeatable for credit.

Prerequisite: ITIS 1212 and ITIS 3130, or permission from instructor.

4 credit hours.

Topics

- Interaction design principles
- Role of gesture, touch, and grasping in the design of software applications
- Design methods for interaction design
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Textbook

There is no textbook for this course. A set of required readings will be made available to students.

Assignments and Assessment of Final Grade

- 5% Engagement: Attendance in class/studio and questions/answers on MOODLE
- 20% User Studies Report
- 20% Design Critique Report
- 50% Preliminary and Final Design Reports
- 5% Peer Evaluation Report

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Course Credit Workload: This 4-credit course requires four hours of classroom or direct faculty instruction. Students should expect to spend an additional eight hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: programming in SAS, required reading, library research, written assignments, and studying for quizzes and exams.

Special Needs: If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at <http://legal.uncc.edu/policies/up-501>. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

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