

Eastern Illinois University
New/Revised Course Proposal Format
(Approved by CAA on 4/3/14 and CGS on 4/15/14, Effective Fall 2014)

CGS Agenda Item: 18-22
Effective Fall 2018

Banner/Catalog Information (Coversheet)

1. ☒ **New Course** or ☐ **Revision of Existing Course**
2. **Course prefix and number:** CIT 4843
3. **Short title:** HCI
4. **Long title:** Human Computer Interaction
5. **Hours per week:** 2 Class 2 Lab 3 Credit
6. **Terms:** ☒ Fall ☐ Spring ☐ Summer ☒ On demand
7. **Initial term:** ☒ Fall ☐ Spring ☐ Summer Year: 2018
8. **Catalog course description:** This course introduces students to the basic concepts of interface design and human computer interaction. Students will learn design principles, development procedures, evaluation methods, and interface building tools.

9. Course attributes:

General education component: ☐ N/A

☐ Cultural diversity ☐ Honors ☐ Writing centered ☐ Writing intensive ☐ Writing active

10. Instructional delivery

Type of Course:

☐ Lecture ☐ Lab ☒ Lecture/lab combined ☐ Independent study/research
☐ Internship ☐ Performance ☐ Practicum/clinical ☐ Other, specify: _____

Mode(s) of Delivery:

☒ Face to Face ☒ Online ☐ Study Abroad

☒ Hybrid, specify approximate amount of on-line and face-to-face instruction ~ 51% Face-to-face and 49% online

11. Course(s) to be deleted from the catalog once this course is approved. ☐ NONE

12. Equivalent course(s): NONE

a. Are students allowed to take equivalent course(s) for credit? ☐ Yes ☒ No

13. Prerequisite(s): CIT 3853 or permission of instructor

a. Can prerequisite be taken concurrently? ☐ Yes ☒ No

b. Minimum grade required for the prerequisite course(s)? C

c. Use Banner coding to enforce prerequisite course(s)? ☒ Yes ☐ No

d. Who may waive prerequisite(s)?

☐ No one ☒ Chair ☒ Instructor ☒ Advisor ☐ Other (specify) _____

14. Co-requisite(s): ☐ NONE _____

15. Enrollment restrictions

a. Degrees, colleges, majors, levels, classes which may take the course:

Students with completion of at least 60 hours or "Junior Standing" of major in CIT, DGT, or EGT,
or
minor in CIT, DGT, EGT, or
graduate students of TEC OR
permission of instructor

b. Degrees, colleges, majors, levels, classes which may not take the course: ☐ ALL OTHERS

16. Repeat status: ☒ May not be repeated ☐ May be repeated once with credit

17. Enter the limit, if any, on hours which may be applied to a major or minor: _____

18. Grading methods: ☒ Standard ☐ CR/NC ☐ Audit ☐ ABC/NC

19. Special grading provisions:

☐ Grade for course will not count in a student's grade point average.

☐ Grade for course will not count in hours toward graduation.

☐ Grade for course will be removed from GPA if student already has credit for or is registered in:

☐ Credit hours for course will be removed from student's hours toward graduation if student
already has credit for or is registered in: _____

20. Additional costs to students:

Supplemental Materials or Software _____

Course Fee ☒ No ☐ Yes, Explain if yes _____

21. Community college transfer:

☐ A community college course may be judged equivalent.

☒ A community college may not be judged equivalent.

Note: Upper division credit (3000+) will not be granted for a community college course, even if the
content is judged to be equivalent.

Rationale, Justifications, and Assurances (Part I)

1. X Course is required for the major(s) of Computer and Information Technology
 Course is required for the minor(s) of _____
 Course is required for the certificate program(s) of _____
 Course is used as an elective

2. Rationale for proposal :

This is part of an effort to redesign Computer and Information Technology program such that it reflects the nature of the program. The content of this course has been identified as a part of the core content for this undergraduate program and meets accreditation requirements from the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

3. Justifications for (answer N/A if not applicable)

Similarity to other courses: N/A

Prerequisites: Material in this course is built on the knowledge of CIT 3853, and uses their concepts and knowledge as a foundation for this new course CIT 4843.

Co-requisites: N/A

Enrollment restrictions:

Students with completion of at least 60 hours or “Junior Standing” of major in CIT, DGT, or EGT,
or
minor in CIT, DGT, EGT, or
graduate students of TEC OR
permission of instructor

Writing active, intensive, centered: N/A

4. General education assurances (answer N/A if not applicable)

General education component: N/A

Curriculum: N/A

Instruction: N/A

Assessment: N/A

5. Online/Hybrid delivery justification & assurances (answer N/A if not applicable)

Online or hybrid delivery justification:

The content and structure for this course relies upon independent research, in-depth group discussion, and video based lecture. As compared to many lab courses already offered in technology area, this course requires online delivery of lecture and discussion and face-to-face lab activities for applied projects. For content delivered online, the course employs online video presentations, structured web discussions focused on reading assignments, and linked to articles submitted to the instructor. Students are required to draw on research and review of articles to discuss and develop fundamental procedural knowledge of application. Discussions invite students to explore in more detail the required knowledge and procedures to analyze and design systems. Discussions and examinations will be administered and submitted via the online course management tool. With the current technology, many software design companies have made their software tools more readily

accessible for students. The Internet connection speed for many users has increased thereby allowing for higher quality rich media instruction to be delivered. Finally, the course management tools that the university now uses allows there to be a richer interaction between students and faculty. To accommodate this situation, many of the given activities may be completed in a hybrid format.

Instruction:

This course employs instructor led online presentations, student reading assignments, student applied design assignments, peer critique and troubleshooting, student presentations, and examinations. After reviewing the instructor led presentations and completing the student reading assignments, students will be required to draw on what they have read and then to apply it to a context of analyzing and designing software systems. While working on these projects, students may engage in the activity of troubleshooting or critique while posting their work in an online discussion board for both classmates and the instructor to provide feedback and guidance. Presentations will provide learners a forum to share the results of their work and receive further feedback. Reading assignments, applied projects, and examinations will be administered, collected, and/or submitted via the online course management tool. Presentations may also be delivered in the course tool or face-to-face. All faculty who will deliver this course online are/will be OCDi (or appropriate equivalent) trained.

Integrity:

Work submitted online, such as discussions and examinations, will be substantiated via learners providing citation in APA format and submitting related articles to quantify work. Further, the length, frequency, quality, and integrity of discussion posts can be monitored via the online course management tool. Examinations will require the same of learners and additionally will use software tools, such as "TURNITIN", to check work for the integrity and authenticity of submitted assignments. The examinations will be time restricted and of sufficient length to prohibit consultation of unauthorized sources. Work submitted face-to-face in applied lab projects will be checked for authenticity via the individualized nature of project completion. Requirements for projects will require learners to engage in activities that require creation of original content for either themselves or local entity.

Interaction:

For online content, the course employs email, web-based discussions, exploration of off-site Internet resources, web-based presentations, web chat rooms and lab based applied project work. The instructor will communicate with students through the online discussion board and web-based discussions. Email may also be a tool used for the instructor to communicate with an individual student or to post course announcements. The learners for this course may also communicate with one another for these tools. During digital office hours, the instructor will remain available for discussion during certain times and communicate using a chat room tool in the learning management system. For face-to-face interaction, the instructor may communicate synchronously with the learners

during open lab activities and during office hours. The learners are also free to communicate with other learners during lab activities.

Model Syllabus (Part II)

Please include the following information:

1. Course number and title
CIT 4843 – Human Computer Interaction
2. Catalog description
This course introduces students to the basic concepts of interface design and human computer interaction. Students will learn design principles, development procedures, evaluation methods, and interface building tools.

3. Learning objectives.

Upon completion of this course, students will be able to:

- a. Demonstrate working knowledge of principles, methods, and tools in human computer interaction (CT 1-3, SL1-6, WR 1-6, QR 3, Grad 1-3)
- b. Describe the essential aspects of designing and evaluating interfaces (CT 1-3, SL1-6, WR 1-6, QR 3,4, Grad 1,2, 4)
- c. Identify and demonstrate understanding of the fundamental concepts of user experience (UX) and user interface (UI) (CT 1-3, SL1-6, WR 1-6, Grad 1,2)
- d. Utilize basic techniques for data gathering and analysis used in interface and interaction design (CT 1-5, SL1-6, WR 1-6, QR 1-5, Grad 1,2,3)
- e. Apply appropriate techniques to design and develop systems that are beneficial to industry or other communities (paper/project) (CT 1-6, SL1-6, WR 1-7, QR 3,4, RC 2, Grad 1-4)

Graduate Learning Goals

Objective	Depth of content knowledge	Critical thinking and problem solving	Oral and/or written communication	Advance scholarship through research and creative activity
(a)	X	X	X	
(b)	X	X		X
(c)	X	X		
(d)	X	X	X	
(e)	X	X	X	X

Undergraduate Learning Goals

Objective	Speaking and Listening	Critical Thinking	Writing and Critical Reading	Quantitative Reasoning	Responsible Citizenship
(a)	X	X	X	X	
(b)	X	X	X	X	
(c)	X	X	X		
(d)	X	X	X	X	
(e)	X	X	X	X	X

4. Course materials.
This will include lecture notes, online resources (such as online tutorials, research papers), etc as well as the following book:

MacKenzie, I. S. (2013). Human-Computer Interaction: An Empirical Research Perspective, 1st Edition. Waltham, MA: Morgan Kaufmann. ISBN: 978-0124058651

Preece, J., Sharp, H., & Rogers, Y. (2015). Interaction Design: Beyond Human-Computer Interaction 4th Edition. West Sussex, UK: John Wiley & Sons Ltd. ISBN: 978-1119020752

5. Weekly outline of content.

The following is a tentative outline of the course; it might change, based on time constraints:

Face-to-Face / Online Modality:

Week	Topics	Activities
Week 1	Introduction to Human Computer Interaction (HCI) and Interface Design	Lab 1
Week 2	Human Factors (Sensors, Perception)	
Week 3	Human Factors (Cognition, and Memory)	Lab 2
Week 4	Principles of User Experience (UX)	
Week 5	Principles of User Interface (UI)	Lab 3
Week 6	Design Principles and Usability	
Week 7	Evaluation of Interfaces (theories)	Lab 4
Week 8	Evaluation of Interfaces (methods, and tools)	Midterm
Week 9	Data Gathering	
Week 10	Data Analysis	Lab 5
Week 11	Design, and Prototyping	
Week 12	Construction	Lab 6
Week 13	Evaluation Studies (Experimental Design, Usability Testing)	Lab 7
Week 14	Design in Practice (System Development)	Lab 8
Week 15	Design in Practice (Evaluation)	Lab 9
Week 16	Final Exam	

Hybrid Modality:

Week	Topics	Activities
Week 1	Introduction to Human Computer Interaction (HCI) and Interface Design	Lab 1
Week 2	Human Factors (Sensors, Perception)	
Week 3	Human Factors (Cognition, and Memory)	Lab 2
Week 4 Face to Face Meetings 8 am to 5 pm	Question/Answers/Review Sessions of Weeks 1 to 3 Principles of User Experience (UX)	
Week 5	Principles of User Interface (UI)	Lab 3
Week 6	Design Principles and Usability	
Week 7	Evaluation of Interfaces (theories)	Lab 4
Week 8 Face to Face Meetings 8 am to 5 pm	Question/Answers/Review Sessions of Weeks 5 to 7 Evaluation of Interfaces (methods, and tools)	Midterm
Week 9	Data Gathering	
Week 10	Data Analysis	Lab 5
Week 11	Design, and Prototyping	
Week 12	Construction	Lab 6
Week 13	Evaluation Studies (Experimental Design, Usability Testing)	Lab 7
Week 14	Question/Answers/Review Sessions of Weeks 9 to 13	Lab 8

Face to Face Meetings 8 am to 5 pm	Design in Practice (System Development)	
Week 15	Design in Practice (Evaluation)	Lab 9
Week 16	Final Exam	

6. Assignments and evaluation, including weights for final course grade.

	Undergraduate	Graduate
Lab Assignments	40 %	35 %
Class Participation	10 %	5 %
Exams	40 %	40 %
Class Projects	10 %	10 %
Research Paper	N/A	10 %
Total	100 %	100 %

7. Grading scale.

A = 90% or above, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, F = Below 60%

8. Correlation of learning objectives to assignments and evaluation.

Objective	Assignments UG: 40% G: 35%	Class Participation UG:10% G: 5%	Projects UG: 10% G: 10%	Midterm UG: 20% G: 20%	Final UG: 20% G: 20%	Research Paper UG: N/A G: 10%
a. Understand principles, methods, and tools in human computer interaction (CT 1-3, SL1-6, WR 1-6, QR 3, Grad 1-3)	X	X	X	X		X
b. Describe the essential aspects of designing and evaluating interfaces (CT 1-3, SL1-6, WR 1-6, QR 3,4, Grad 1,2, 4)	X	X	X	X		X
c. Understand fundamental concepts of user experience (UX) and user interface (UI) (CT 1-3, SL1-6, WR 1-6, Grad 1,2)	X	X	X	X	X	X
d. Utilize basic techniques for data gathering and analysis used in interface and interaction design (CT 1-5, SL1-6, WR 1-6, QR 1-5, Grad 1-3)	X		X		X	X
e. Apply appropriate techniques to design and			X		X	X

develop systems that are beneficial to industry or other communities (paper/project) (CT 1-6, SL1-6, WR 1-7, QR 3,4, RC 2, Grad 1-4)						
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Date approved by the department or school: 1/8/2018

Date approved by the college curriculum committee: 01/30/18

Date approved by the Honors Council (*if this is an honors course*):

Date approved by CAA: CGS: