Eastern Illinois University
New Course Proposal
CIT 4813, Front End and Mobile Website Development

Banner/Catalog Information (Coversheet)

1. **_X_ New Course or _____ Revision of Existing Course**

2. **Course prefix and number:** *CIT 4813*

3. **Short title:** *Front End Website Development*

4. **Long title:** *Front End and Mobile Website Development*

5. **Hours per week: 2** Class   **2** Lab   **3** Credit

6. **Terms:** ___ Fall   ___Spring   ___Summer   **X** On demand

7. **Initial term**: ___ Fall   **X** Spring   ___ Summer   Year: **2017**

8. **Catalog course description:** *A study of front end and mobile website development. Emphasis will be on planning, designing, development, testing, and publishing of websites specifically for internet connected devices.*

9. **Course attributes: N/A**

    General education component: _____

    ___ Cultural diversity ___ Honors ___ Writing centered   ___ Writing intensive ___Writing active

10. **Instructional delivery**
    Type of Course:

    ___ Lecture   ___ Lab   **X** Lecture/lab combined   ___ Independent study/research

    ___ Internship   ___ Performance   ___ Practicum/clinical ___ Other, specify: _____

    Mode(s) of Delivery:

    X Face to Face   **X** Online   ___ Study Abroad

    X Hybrid, specify approximate amount of on-line and face-to-face instruction *2-50 minute sessions online, 2- 50 minute sessions face-to-face per week*

11. Course(s) to be deleted from the catalog once this course is approved. *N/A*

12. **Equivalent course(s):** *None*

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

13. **Prerequisite(s):** *None*

    a. Can prerequisite be taken concurrently? ___ Yes   ___ No

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

    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):** *N/A* _____

15. **Enrollment restrictions**

    a. **Degrees, colleges, majors, levels, classes which <u>may</u> take the course:** *All*

    b. **Degrees, colleges, majors, levels, classes which may <u>not</u> take the course:** *N/A* _____

16. **Repeat status: <u>X</u>** 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: <u>X</u>** Standard ___ CR/NC __ Audit ___ ABC/NC

19. **Special grading provisions:**

    ___ Grade for course will <u>not</u> count in a student's grade point average.

    ___ Grade for course will <u>not</u> 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 *$50-$75 for web hosting and domain name registration*

    Course Fee **<u>X</u>** No ___Yes, Explain if yes_____

21. **Community college transfer:**

    ___ A community college course may be judged equivalent.

    <u>X</u> A community college may <u>not</u> be judged equivalent.

    Note: Upper division credit (3000+) will <u>not</u> 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 _____

   X Course is used as an elective for other majors

2. **Rationale for proposal** : *Website Development is a profession expected to grow by 22% each year until 2020 according to the Bureau of Labor Statistics. In Illinois alone this equates to several hundreds of jobs each year. As a result, this course is being developed as a core course for the proposed BS in Computer and Information Technology. This course combined with other courses proposed for the CIT program will be a part of developing 2+2 agreements with community colleges to attract students with AAS degrees. The sum of the reasons above are more than adequate to justify the proposed course.*

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

   Similarity to other courses: *Some of the topics covered in this course are discussed in courses offered in the School of Business. MIS 4530 is designed for face-to-face, hybrid, and online delivery. It also covers front end development for web and mobile applications. CIT 4813 uses a 2-2-3 lecture/lab combined structure as opposed to the a 3-0-3 format used in MIS 4530 to allow students a different type of offering in face-to-face, hybrid, and online delivery. CIT 4813 is focused on front end web development for websites only, and not mobile applications. MIS 3530 focuses on front-end side architecture. MIS 3530 covers both front-end and back-end architectures. CIT 4813 focuses solely on front end web development for cross-media and interactive media applications. In MIS 3530 (Business Web Site Design), students learn how to design and develop website using tools like Dreamweaver. CIT 4813 utilizes an approach of applying graphics creation software in Photoshop and Illustrator first to create the presentation layer and then exporting the HTML and CSS code to an Integrated Development Engine like Brackets or Komodo Edit. The exported code is then modified, tested, and then published to a web server. Because this course utilizes an alternate pedagogical approach and lecture/lab structure, this course in Front End Web Development should not affect the programs of the School of Business.*

   Prerequisites: **N/A**

   Co-requisites: **N/A**

   Enrollment restrictions: **N/A**

   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 online or hybrid delivery is a necessity to offer flexible options to our student population. Offering this course through the hybrid or online mode allows accessibility of nontraditional students who live long distance from campus or cannot be in face-to-face classrooms such as working professionals, distance learners, and international students. It will improve number of enrollments in this group of students. The content of a front end and mobile website development course requires little in the way of hardware and many Web Development software packages are free. 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. Therefore, students at a remote location may benefit more from a course that is entirely online or hybridized.*

Instruction: *Instructional techniques may include flipped classroom strategies, peer learning, video based lecture, instructor based demonstration, and/or textbook tutorials. In flipped classroom instruction, the instructor will ask students to read on a particular topic and then complete a short assignment in advance of the material being presented. The students will also engage in a short discussion regarding the topics being presented. Certain elements of the course may require the students to teach one another a concept via video, screencast or podcasting. For these assignments, students will work in small groups to present each other material, work through the concepts, and complete assignments related to the topic. Video based lecture may be used present certain topics from the instructor. In these videos, the instructor will introduce material, complete demonstrations, and show examples of material to be learned. To supplement the videos, the instructor will create tutorials on how to apply and utilize certain tools and techniques or ask students to complete textbook tutorials. The course will be delivered in an online Learning Management System (LMS). Learning materials, discussion, assignments, exams, and grading will be placed on the LMS. All faculty who will deliver this course online are/will be OCDi (or appropriate equivalent) trained.*

Integrity: *Assignments and/or papers will require that students submit work to a dropbox in the course management system where it will be checked for plagiarism. Assignments will be*

designed to where students will also have to draw on experiences, case studies, and/or develop solutions to problems that would be difficult to replicate from classmates. Projects will be applied and design based. Therefore the projects will rely upon the students developing and creating new designs of Websites unique to a particular client or customer and therefore difficult to replicate. Presentations of work will require students to complete a screencast and/or computer based presentation where the student will present the results of their work to their classmates. Students involved in peer review of classmates projects and presentations will be required to give feedback via discussion boards or synchronous chat rooms. All assignments, papers, projects, presentations, and critiques will be assigned a rubric that students must review and adhere to. All rubrics will be given to students on the first day of class. Finally, exams and quizzes will be administered through the course management system. Exams and quizzes will validate that students have retained knowledge from all instructional activities. Graduate students will be required to complete a research paper on a current topic in the realm of mobile website development. This paper must go into depth on the issues and trends facing the topic, propose solutions and alternatives, and review practical case studies of implementation of these solutions. The resulting research paper must be submitted to a journal or academic conference for dissemination. Writing responses for all laboratory assignments, exams, and class project will be analyzed by the originality checking software

Interaction: *This course will rely upon email, discussion boards, chat rooms, and remote assistance tools. The instructor will frequently respond to emails to address any concerns that students might have and send out messages to remind students of important due dates and address any other issues students may have. Discussion boards will be used as areas to discuss the topics of the week asynchronously. Students will be required to complete discussions with the whole class and/or small groups. Forums may also be set up for students to share issues or work collaboratively to solve problems on lab assignments. Chat rooms will be encouraged for both instructor to student interaction as well as student to student interaction synchronously. In the chat room, students may ask questions, give answers, and share information. Remote assistance tools will be relied upon heavily for this course. Issues that students may be unable to solve on their own may require a digital helping hand. Remote assistance software will be used to demonstrate to students synchronously or help to solve issues.*

Model Syllabus (Part II)

Please include the following information:

1. Course number and title

   CIT 4813, Front End and Mobile Website Development

2. Catalog description

   A study of front end and mobile website development. Emphasis will be on planning, designing, development, testing, and publishing of websites specifically for internet connected devices.

3. Learning objectives.

   Upon completion of the course, the learner will be able to:
   1. Develop a strategy for a Desktop and Mobile Website. (CT 1-6) (Grad 1-4)
   2. Create a comprehensive plan for a Desktop and Mobile Website. (WCR 1-7) (Grad 1-4)
   3. Combine HTML5, CSS3, and JQuery in creation of a Desktop and Mobile Website templates and pages. (CT 2, 3, 4) (Grad 1-2)
   4. Optimize and integrate graphics and media in templates and pages. (CT 2, 3, 4) (Grad 1-2)
   5. Test site usability and troubleshoot. (QR 2, 4) (Grad 4)
   6. Publish finished Desktop and Mobile Website projects in a professional format to be critiqued by peers and professionals. (SL 1-7) (Grad 1-4)
   7. Provide criticism and suggestions for improvement of Desktop and Mobile Website projects. (CT 1-6) (Grad 1-3)

4. Course materials.

   - One USB Drive – Minimum of 16 GB
   - Access to a computer and reliable internet connection
   - Web Development software (Dreamweaver, Komodo Edit, or Brackets)
   - Adobe Creative Cloud Software (Photoshop, Illustrator)
   - Online journal articles and online software exercises as assigned by the instructor

5. Weekly outline of content.
   Face-to-Face

Week	Day 1 (50 minutes) *Face-to-face*	Lab work (50 minutes) *Face-to-face*	Day 2 (50 minutes) *Face-to-face*	Lab work (50 minutes) *Face-to-face*
Week 1	Mobile website or app?	Mobile website or app?	Smartphone and Tablet Usage	
Week 2	Site mapping, Wireframing	Site mapping, Wireframing exercises	Website Hosting, Domain Names	Website Hosting, Domain Names research
Week 3	Introduction to HTML5	HTML5 exercises	Basic Page Structure	Basic Page Structure exercises
Week 4	Doctypes, Head, Content, Validation	Doctypes, Head, Content, Validation exercises	Block Level Elements	Block Level Elements exercises
Week 5	Inline Elements	Inline Elements exercises	Publishing and FTP	Publishing and FTP exercises
Week 6	Overview of CSS	CSS exercises	CSS Application and Navigation	CSS Application and Navigation exercises
Week 7	Selectors, Box Models, Float	Selectors, Box Models, Float exercises	CSS Units, Positioning	CSS Units, Positioning exercises

Week 8	**Midterm Exam**	CSS Units, Positioning exercises	Media Queries	Media Queries exercises
Week 9	Responsive Web Development	Responsive Web Development exercises	Mobile Redirects	Mobile Redirect exercises
Week 10	Introduction to JQuery Mobile	JQuery Mobile exercises	JQuery Effects	JQuery Effects exercises
Week 11	JQuery Events	JQuery Events exercises	JQuery Selectors	JQuery Selectors exercises
Week 12	JQuery and HTML	JQuery and HTML exercises	JQuery and CSS	JQuery and CSS exercises
Week 13	Trends in Mobile Web	Trends in Mobile Web exercises	Parallax Websites	Parallax Websites exercises
Week 14	Optimizing images for the web	Project work	Optimizing video for the web	Project work
Week 15	API Integration	Project work	Validation and Troubleshooting	Project work
Week 16	**Final Exam**			

Hybrid

Week	Day 1 (50 minutes) *Face-to-face*	Lab work (50 minutes) *Online*	Day 2 (50 minutes) *Face-to-face*	Lab work (50 minutes) *Online*
Week 1	Mobile website or app?	Mobile website or app?	Smartphone and Tablet Usage	
Week 2	Site mapping, Wireframing	Site mapping, Wireframing exercises	Website Hosting, Domain Names	Website Hosting, Domain Names research
Week 3	Introduction to HTML5	HTML5 exercises	Basic Page Structure	Basic Page Structure exercises
Week 4	Doctypes, Head, Content, Validation	Doctypes, Head, Content, Validation exercises	Block Level Elements	Block Level Elements exercises
Week 5	Inline Elements	Inline Elements exercises	Publishing and FTP	Publishing and FTP exercises
Week 6	Overview of CSS	CSS exercises	CSS Application and Navigation	CSS Application and Navigation exercises
Week 7	Selectors, Box Models, Float	Selectors, Box Models, Float exercises	CSS Units, Positioning	CSS Units, Positioning exercises
Week 8	**Midterm Exam**	CSS Units, Positioning exercises	Media Queries	Media Queries exercises
Week 9	Responsive Web Development	Responsive Web Development exercises	Mobile Redirects	Mobile Redirect exercises
Week 10	Introduction to JQuery Mobile	JQuery Mobile exercises	JQuery Effects	JQuery Effects exercises
Week 11	JQuery Events	JQuery Events exercises	JQuery Selectors	JQuery Selectors exercises
Week 12	JQuery and HTML	JQuery and HTML exercises	JQuery and CSS	JQuery and CSS exercises
Week 13	Trends in Mobile Web	Trends in Mobile Web exercises	Parallax Websites	Parallax Websites exercises
Week 14	Optimizing images for the web	Project work	Optimizing video for the web	Project work
Week 15	API Integration	Project work	Validation and Troubleshooting	Project work
Week 16	**Final Exam**			

Online

Week	Day 1 (50 minutes) _Online_	Lab work (50 minutes) _Online_	Day 2 (50 minutes) _Online_	Lab work (50 minutes) _Online_
Week 1	Mobile website or app?	Mobile website or app?	Smartphone and Tablet Usage	
Week 2	Site mapping, Wireframing	Site mapping, Wireframing exercises	Website Hosting, Domain Names	Website Hosting, Domain Names research
Week 3	Introduction to HTML5	HTML5 exercises	Basic Page Structure	Basic Page Structure exercises
Week 4	Doctypes, Head, Content, Validation	Doctypes, Head, Content, Validation exercises	Block Level Elements	Block Level Elements exercises
Week 5	Inline Elements	Inline Elements exercises	Publishing and FTP	Publishing and FTP exercises
Week 6	Overview of CSS	CSS exercises	CSS Application and Navigation	CSS Application and Navigation exercises
Week 7	Selectors, Box Models, Float	Selectors, Box Models, Float exercises	CSS Units, Positioning	CSS Units, Positioning exercises
Week 8	**Midterm Exam**	CSS Units, Positioning exercises	Media Queries	Media Queries exercises
Week 9	Responsive Web Development	Responsive Web Development exercises	Mobile Redirects	Mobile Redirect exercises
Week 10	Introduction to JQuery Mobile	JQuery Mobile exercises	JQuery Effects	JQuery Effects exercises
Week 11	JQuery Events	JQuery Events exercises	JQuery Selectors	JQuery Selectors exercises
Week 12	JQuery and HTML	JQuery and HTML exercises	JQuery and CSS	JQuery and CSS exercises
Week 13	Trends in Mobile Web	Trends in Mobile Web exercises	Parallax Websites	Parallax Websites exercises
Week 14	Optimizing images for the web	Project work	Optimizing video for the web	Project work
Week 15	API Integration	Project work	Validation and Troubleshooting	Project work
Week 16	**Final Exam**			

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

	Undergraduate	Graduate
Assignments (software/technique exercises)	15%	10%
Discussions	15%	10%
Quizzes	15%	10%
Applied Projects (research project)	20%	20%
Exams	25%	20%
Papers (journal article reviews)	10%	20%
Research Paper	-----	10%
TOTAL	**100%**	**100%**

Grading scale.

A = 90 to 100 %, B < 89.9999%, C < 79.9999%, D < 69.9999%, F < 59.9999%

7. Correlation of learning objectives to assignments and evaluation.

Objective	Assignments Undergraduate: 15% Graduate: 10%	Discussions Undergraduate: 15% Graduate: 10%	Quizzes Undergraduate: 15% Graduate: 10%	Projects Undergraduate: 20% Graduate: 20%	Exams Undergraduate: 25% Graduate: 20%	Papers Undergraduate: 10% Graduate: 20% Research paper: 10%
1. (CT 1-6) (Grad 1-4)	X	X	X	X	X	X
2. (WCR 1-7) (Grad 1-4)	X	X	X	X		X
3. (CT 2, 3, 4) (Grad 1-2)	X			X		
4. (CT 2, 3, 4) (Grad 1-2)	X			X	X	
5. (QR 2, 4) (Grad 4)	X		X		X	
6. (SL 1-7) (Grad 1-4)		X		X		X
7. (CT 1-6) (Grad 1-3)		X			X	X

Date approved by the department or school: 2/16/2016
Date approved by the college curriculum committee: 3/25/2016
Date approved by the Honors Council (*if this is an honors*
course): **Date approved by CAA: 4/28/2016   CGS:** 5-3-16