Eastern Illinois University
NEW/REVISED COURSE PROPOSAL FORMAT
(Approved by CAA on 9/29/11 and CGS on 10/18/11, Effective Fall 2011)

This format is to be used for all courses submitted to the Council on Academic Affairs and/or the Council on Graduate Studies.

Please check one: **X** New course   ___ Revised course

PART I: CATALOG DESCRIPTION

1. **Course prefix and number,** *such as ART 1000*: TEC 5383

2. **Title (*may not exceed 30 characters, including spaces*):** Advanced Web Technologies

3. **Long title, if any (*may not exceed 100 characters, including spaces*):**

4. **Class hours per week, lab hours per week, and credit [*e.g., (3-0-3)*]:** 3-0-3

5. **Term(s) to be offered:** ___ Fall ___ Spring ___ Summer **X** On demand

6. **Initial term of offering:** ___ Fall **X** Spring ___ Summer **Year:** 2013

7. **Course description:** A study into advanced web technologies including XHTML, CSS, JavaScript, DHTML, XML, client-side methods, server-side methods, Web 2.0, rich Internet applications, and web security. Students will be required to complete a number of comprehensive projects.

8. **Registration restrictions:**
   a. **Equivalent Courses**
      - **Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course). None
      - Indicate whether coding should be added to Banner to restrict students from registering for the equivalent course(s) of this course. ___ Yes **X** No

   b. **Prerequisite(s)**
      - **Identify the prerequisite(s),** including required test scores, courses, grades in courses, and technical skills. Indicate whether any prerequisite course(s) MAY be taken concurrently with the proposed/revised course.

        TEC 5343 Multimedia and Web Technology, or waived by the instructor. Students cannot take two courses concurrently unless approved by the instructor.

      - Indicate whether coding should be added to Banner to prevent students from registering for this course if they haven't successfully completed the prerequisite course(s). **X** Yes ___ No

        If yes, identify the minimum grade requirement and any equivalent courses for each prerequisite course:

   c. **Who can waive the prerequisite(s)?**
      ___ No one **X** Chair ___ Instructor ___ Advisor ___ Other (Please specify)

   d. **Co-requisites** (course(s) which MUST be taken concurrently with this one): None

   e. **Repeat status:** **X** Course may not be repeated.

___ Course may be repeated once with credit.

Please also specify the limit (if any) on hours which may be applied to a major or minor.

   f. **Degree, college, major(s), level, or class** to which registration in the course is restricted, if any:
       None
   g. **Degree, college, major(s), level, or class** to be excluded from the course, if any:
       None
9. **Special course attributes** [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive]
    None
10. **Grading methods** (check all that apply): _**X**_ Standard letter ___ CR/NC ___ Audit ___ ABC/NC
    ("Standard letter"—i.e., ABCDF--is assumed to be the default grading method unless the course description indicates otherwise.)

    Please check any special grading provision that applies to this course:

    ___   The grade for this course will not count in a student's grade point average.

    ___   The credit for this course will not count in hours towards graduation.

    If the student already has credit for or is registered in an equivalent or mutually exclusive course, check any that apply:

    ___   The grade for this course will be removed from the student's grade point average if he/she already has credit for or is registered in _____ (insert course prefix and number).

    ___   Credit hours for this course will be removed from a student's hours towards graduation if he/she already has credit for or is registered in _____ (insert course prefix and number).

11. **Instructional delivery method:** (Check all that apply.)

                              _**X**_ lecture ___ lab ___ lecture/lab combined ___ independent study/research

                              ___ internship ___ performance ___ practicum or clinical ___ study abroad

                              _X_ Internet _X_ hybrid ___ other (Please specify)

PART II: ASSURANCE OF STUDENT LEARNING

   1. **List the student learning objectives of this course:**

       a. **If this is a general education course, indicate which objectives are designed to help students achieve one or more of the following goals of general education and university-wide assessment:**
           - **EIU graduates will write and speak effectively.**
           - **EIU graduates will think critically.**
           - **EIU graduates will function as responsible citizens.**

Not a general education course.

b. **If this is a graduate-level course, indicate which objectives are designed to help students achieve established goals for learning at the graduate level:**
- **Depth of content knowledge**
- **Effective critical thinking and problem solving**
- **Effective oral and written communication**
- **Advanced scholarship through research or creative activity**

(1)   Explain how Internet works and interpret commonly used network protocols.
(2)   Illustrate web communication model and explain client-server computing architecture.
(3)   Identify the latest tools, technologies, standards, and best practices in Web design and development.
(4)   Design and create web pages using HTML/XHTML.
(5)   Apply information design, graphics, and cascading style sheets to format and position HTML components and create an aesthetic effect.
(6)   Create interactive and dynamic web pages using client-side scripting.
(7)   Represent data over the web using XML.
(8)   Demonstrate server-side web programming.
(9)   Give recommendations on web security.
(10)   Research on rising web technologies such as semantic web.

The following table explains how the course objectives help students achieve graduate level learning goals:

Graduate Level Learning Goals	Course Objectives
Depth of content knowledge	(1), (2), (3), (4), (5), (6), (7), (8), (9)
Effective critical thinking and problem solving	(3), (4), (5), (6), (7), (8)
Effective oral and written communication	(1), (2), (3), (8), (9), (10)
Advanced scholarship through research or creative activity	(8), (9), (10)

2. **Identify the assignments/activities the instructor will use to determine how well students attained the learning objectives:**

Quizzes, lab activities, individual and team projects, midterm, and final exam/research.

3. **Explain how the instructor will determine students' grades for the course:**

Objective	Quizzes 10%	Activities 30%	Projects 30%	Midterm 15%	Final 15%
1	X		X	X	
2	X	X	X	X	
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	X
6	X	X	X	X	X
7	X	X			X
8	X	X	X		X
9	X	X			X

			X		X
10					

4. **For technology-delivered and other nontraditional-delivered courses/sections, address the following:**
   a. **Describe how the format/technology will be used to support and assess students' achievement of the specified learning objectives:**
   b. **Describe how the integrity of student work will be assured:**
   c. **Describe provisions for and requirements of instructor-student and student-student interaction, including the kinds of technologies that will be used to support the interaction (e.g., e-mail, web-based discussions, computer conferences, etc.):**

   This course can be offered in both traditional-delivered and technology delivered settings. When being offered as a technology-delivered course,
   a. The course will be delivered in an on-line learning environment – WebCT (or other systems adopted by the university). Learning materials, discussions, assignments, and grading will all be placed on WebCT.
   b. Instructor talks to students and ask questions about assignments to assure the integrity. Tests may use a face-to-face format or use web-conferencing software such as Elluminate Live.
   c. Class interactions will use a combination of email, on-line discussion, web conferencing (virtual classroom with audio/video and white board support), and social networks.

5. **For courses numbered 4750-4999, specify additional or more stringent requirements for students enrolling for graduate credit. These include:**
   a. **course objectives;**
   b. **projects that require application and analysis of the course content; and**
   c. **separate methods of evaluation for undergraduate and graduate students.**

   N/A

6. **If applicable, indicate whether this course is writing-active, writing-intensive, or writing-centered, and describe how the course satisfies the criteria for the type of writing course identified. (See Appendix *.)**

   N/A

PART III: OUTLINE OF THE COURSE

Provide a week-by-week outline of the course's content. Specify units of time (e.g., for a 3-0-3 course, 45 fifty-minute class periods over 15 weeks) for each major topic in the outline. Provide clear and sufficient details about content and procedures so that possible questions of overlap with other courses can be addressed. For technology-delivered or other nontraditional-delivered courses/sections, explain how the course content "units" are sufficiently equivalent to the traditional on-campus semester hour units of time described above.

Topics	Weeks
Internet and World Wide Web	1
Creating XHTML Pages	1
Web Designing Tools	1
XHTML Elements	1

Style Sheets	1
Graphics and Links	1
Page Layout and Frames	1
Client-Side Scripting	2
Server-Side Scripting	2
Rich Internet Applications	1
Web Services	1
Web Security	1
HTML 5 and Semantic Web	1
Total	**15**

PART IV: PURPOSE AND NEED

1. **Explain the department's rationale for developing and proposing the course.**

   a. **If this is a general education course, you also must indicate the segment of the general education program into which it will be placed, and describe how the course meets the requirements of that segment.**
   b. **If the course or some sections of the course may be technology delivered, explain why.**

Web technologies have been a driving force for the pervasive usage of computers during the past decade and for the overwhelming trend of mobile computing in recent years. Graduate students with Computer Technology concentration in School of Technology used to get exposed to web technologies in TEC 5343 (Multimedia and Web Technology) course.

TEC 5343 is composed of two areas: multimedia and web. Due to course time limitation and rapid expansion and turnover in web technologies, it has become increasingly difficult to cover advanced web topics in TEC 5343. There is a strong demand from the students to learn more web technologies after TEC 5343.

The purpose of this new course is to teach graduate students in School of Technology advanced web technologies. This course reviews Internet and web literature including communication protocols and mark-up language technology. It introduces advanced web technologies such as Web 2.0, AJAX, and server side programming. It will provide computer technology professionals with modern web technologies and proper techniques to build professional web sites.

One fundamental mission of EIU is to provide accessible education. School of Technology constantly enrolls a considerable number of nontraditional students, such as working professionals, distant residents, and international learners. This course may be technology delivered to that population, who otherwise couldn't access the course or would look for alternative institutes.

The contents of this course are naturally suitable for technology delivery. Teaching materials are in forms of PowerPoint, Word document, PDF, etc. Student work is in digital formats such as web pages, style sheets, and program files. In addition to email and online discussion, class interaction will go through web conferencing software such as Elluminate Live in real time.

2. **Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions.**

This graduate level course is suitable for students who plan to design and develop professional web sites. It will provide graduate students with in-depth knowledge and skills to effectively use various advanced web technologies. Students will not only review Internet and Web literature, but also will actively participate in web page design laboratories and client-side/server-side script developments. Furthermore, students will study and research issues in Web 2.0, web security, and other rising web technologies.

3. **If the course is similar to an existing course or courses, justify its development and offering.**

   a. **If the contents substantially duplicate those of an existing course, the new proposal should be discussed with the appropriate chairpersons, deans, or curriculum committees and their responses noted in the proposal.**
   b. **Cite course(s) to be deleted if the new course is approved. If no deletions are planned, note the exceptional need to be met or the curricular gap to be filled.**

   Six MIS courses (MIS 3200, MIS 3530, MIS 4530, MIS 4700, MIS 4850, and MIS 5105) each had some overlap with this new course. None of these courses significantly overlap with the new course so there is no MIS faculty objection to the new course.

4. **Impact on Program(s):**

   a. **For undergraduate programs, specify whether this course will be required for a major or minor or used as an approved elective.**
   b. **For graduate programs, specify whether this course will be a core requirement for all candidates in a degree or certificate program or an approved elective.**

   If the proposed course changes a major, minor, or certificate program in or outside of the department, you must submit a separate proposal requesting that change along with the course proposal. Provide a copy of the existing program in the current catalog with the requested changes noted.

   This course will enhance the current graduate curriculum, but it is not intended to be a core requirement.

PART V: IMPLEMENTATION

1. **Faculty member(s) to whom the course may be assigned:**

   If this is a graduate course and the department does not currently offer a graduate program, it must document that it employs faculty qualified to teach graduate courses.

   Dr. Rendong Bai and other computer technology faculty members.

2. **Additional costs to students:**

   Include those for supplemental packets, hardware/software, or any other additional instructional, technical, or technological requirements. (Course fees must be approved by the President's Council.)

   None

3. **Text and supplementary materials to be used (Include publication dates):**

Creating a Web Site: The Missing Manual, Third Edition, Matthew MacDonald, O'Reilly Media / Pogue Press, May 2011.

PHP for the Web: Visual QuickStart Guide, Fourth Edition, Larry Ullman, Peachpit Press, March 2011.

Online resources such as www.w3schools.com.

PART VI: COMMUNITY COLLEGE TRANSFER

If the proposed course is a 1000- or 2000-level course, state either, "A community college course may be judged equivalent to this course" OR "A community college course will not be judged equivalent to this course." A community college course will not be judged equivalent to a 3000- or 4000-level course but may be accepted as a substitute; however, upper-division credit will not be awarded.

PART VII: APPROVALS

Date approved by the department or school: November 17, 2011

Date approved by the college curriculum committee: **April 18, 2012**

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

Date approved by CAA: **CGS:**

*In **writing-active courses**, frequent, brief writing activities and assignments are required. Such activities -- some of which are to be graded – might include five-minute in-class writing assignments, journal keeping, lab reports, essay examinations, short papers, longer papers, or a variety of other writing-to-learn activities of the instructor's invention. Writing assignments and activities in writing-active courses are designed primarily to assist students in mastering course content, secondarily to strengthen students' writing skills. In **writing-intensive courses**, several writing assignments and writing activities are required. These assignments and activities, which are to be spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses, students' writing should constitute no less than 35% of the final course grade. In **writing-centered courses** (English 1001G, English 1002G, and their honors equivalents), students learn the principles and the process of writing in all of its stages, from inception to completion. The quality of students' writing is the principal determinant of the course grade. The minimum writing requirement is 20 pages (5,000 words).

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