University of North Florida - School of Computing
CIS 4930 - Special Topics course
TLO: Website & App Development for Community
(3 Semester Credits)

Instructors

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Course Information

Course Description
Website & App Development for Community course provides a community-based learning opportunity. Students will learn the fundamentals of website design and development. Students will develop and deliver a basic website that satisfies the requirements set forth by a community partner. Students will use a content management system to develop the website.

Co-requisite or Prerequisite
COP 3855 - Web Access and Systems Design or COP 4813 – Internet Programming

Learning outcomes
Upon completion of the course, students will be able to:
- Apply website development fundamentals to develop a website using a content management system.
- Gather and document website requirements for a community partner.
- Develop and deliver a website that meets a community partner's needs.
- Train a community partner on how to maintain the website.
- Demonstrate the utility of the website for the community partner.
- Critically think and reflect on the process of interacting with and developing a website for a community partner.
- Compare and contrast their views, before and after transformation experience, on expectations and responsibilities for a computing professional to succeed in a professional environment.

Method of Teaching

While this course is listed as an online class, it will be a hybrid course incorporating both face-to-face and online teaching methods. This course incorporates teaching media including the text book, PowerPoint notes, group projects, software demo presentations, mini-activities, and peer discussions.

The student-centered nature of online learning requires students to be actively involved with and take more responsibility for their own learning. As with all university courses, students are expected to dedicate considerable amount of time outside the classroom to read the textbook and other supplemental materials provided in the class.

Scholarship

Each participating student will receive $1000 as scholarship award (sponsored by TLO funds) on the conditionality that they successfully develop and deliver the website to the satisfaction of the community partner and complete all course assignments and other requirements. Students are expected to spend at minimum 10 hours per week on the website development and training the community partner to maintain the website.

Reference books

There is no prescribed textbook for this course. However, listed books are good reference materials for different topics that will be covered in this course.

RB1: Joomla! 3 Beginner's Guide by Eric Tiggeler
http://www.amazon.com/Joomla-3-Beginners-Guide-ebook/dp/B00BAOC2JM
http://www.packtpub.com/joomla-3-beginners-guide/book
ISBN 13: 9781782164340

RB2: The Official Joomla! Book by Jennifer Marriott and Elin Waring
http://www.amazon.com/Official-Joomla-Book-Edition-Press/dp/0321821548
http://officialjoomlabook.com/
ISBN-13: 978-0-321-70421-4

RB3: User Stories Applied: For Agile Software Development by Mike Cohn
http://www.amazon.com/User-Stories-Applied-Software-Development/dp/0321205685
http://www.mountaingoatsoftware.com/books/user-stories-applied
ISBN-13: 978-0321205681

RB4: Implementing Responsive Design: Building sites for an anywhere, everywhere web by Tim Kadlec
http://www.amazon.com/Implementing-Responsive-Design-Building-everywhere/dp/0321821688
http://www.implementingresponsivedesign.com/
ISBN-13: 978-0321821683

Community-based Learning

This is a Community-Based Transformational Learning (CBTL) course. This class utilizes service learning based instruction in which students will achieve course objectives through community-based projects. Throughout this course, students will have adequate opportunity to interact with community partner and reflect on their learning and service. As part of this course, students will offer website development service to non-profit and/or small-business organizations

from North East Florida region. Students will work as a part of a team to develop a website that addresses needs stated by a community partner. For more information on CBTL, refer to http://www.unf.edu/ccbl/What_is_Community-Based_Transformational_Learning.aspx.

Method of Evaluation

Method of Evaluation	Team Assessment	Individual Assessment
Requirements	5%	5%
Design Mockups	5%	5%
First and second releases	10%	10%
Final Release and delivery	5%	5%
Final Report	5%	5%
Partner training and user manual	5%	5%
Website demonstration Presentation	5%	5%
Weekly blog and report	5%	5%
Reflection Essay	5%	5%
Sub Total	50%	50%
Total	100%	

Letter grades will be based on:
94 – 100 = A
90 – 93.99 = A-
87 – 89.99 = B+
84 – 86.99 = B
80 – 83.99 = B-
77 – 79.99 = C+
70 – 76.99 = C
60 – 69.99 = D
less than 60=F

The penalty for cheating or plagiarizing on assignments will be F grade in the course. Work which is similar beyond coincidence will automatically be considered cheating by all parties.

Late Assignments:
There will be a penalty of 10 % per day for late submission of assignments (including weekends and holidays).

Academic dishonesty:
No type of academic dishonesty will be tolerated. If you are caught cheating or plagiarizing on the assignments, the punishment will be the most severe penalty allowed by the university policy. The policy on academic integrity and misuse of computer equipment and computer accounts found at http://www.unf.edu/ccec/computing/Policies___Guidelines.aspx applies to this course.

Course outcomes, assignments, and activities matrix

Course outcomes	Assignments/Assessments	Activities performed by students
Apply website development fundamentals to develop a website using a content management system	Design Mockups First and second releases Final Release and delivery	User interface design mock ups, website releases, and partner feedback reports
Gather and document website requirements for a community partner	Requirements	Interview questions and user stories
Develop and deliver a website that meets a community partner's needs	Final Release and delivery Final Report	Executive summary, introduction, functionality descriptions, all updated documents produced, discussions, and future work.
Train a community partner on how to maintain the website	Partner training and user manual	delivery process and user manual
Demonstrate utility of the website for the community partner	Website demonstration Presentation	Symposium poster presentation
Critically think and reflect on the process of interacting with and developing a website for a community partner	Weekly blog and report	Weekly blog on website development and interactions with community partner
Compare and contrast their views, before and after transformation experience, on expectations and responsibilities for a computing professional to succeed in a professional environment	Reflection Essay	Essay on lesson learned via service learning

Deliverables

Team experience

Students are expected to work in teams, unless otherwise specified by the instructor. All students must experience various aspects of website development lifecycle discussed in the class and will be held accountable for their portion of the deliverables.

Requirements

1. Interview questions

Interview is a technique used for eliciting requirements and expectations for the website from the community partner. Interview is essentially conservation with a stakeholder (community partner). In order to ensure you will be able to gather necessary information from the partner to develop the site, planning and preparing interview questions is an important task.

2. User Stories

A user story is a brief statement of a feature describing something that the system must perform from the user perspective. User stories technique will be used to document community partner's need for the website.

Design Mockups

1. User Interface Design

User interface design is the process of defining how the system will interact with external entities (e.g., customers, suppliers, other systems). In many ways, user interface design is an art. Apply the interface design principles to create an interface pleasing to the eye and simple to users, while minimizing the effort users need to accomplish the work.

First and second releases

1. First iteration product release

Each team member demonstrates their expertise to work on the project using by developing initial implementation for high priority functionalities. Each member must select different functionalities to demonstrate their capabilities.

2. Second iteration product release

Develop an exploratory prototype site that addresses major portions of the requirements for the website.

Partner training and user manual

Train community partner to create and maintain web pages using Joomla. Prepare a user manual to help community partner to create and maintain website.

Final release and delivery

Complete all the requirements and complete the process of delivering site to the community partner.

Final Report

The final report for your project must include details of the website that will be delivered to the community partner. The report should include the execute summary, requirements, user interface design, website details, and discussions.

Weekly Review Reports

1. Weekly reports

Students are expected to report their service learning work and project progress to instructors on weekly basis.

2. Weekly blog

Students must post their weekly blog entries to the Weekly Sprint Review Meeting Reports blog that can be found under Assignment section in Blackboard. Students are encouraged to comment on other student posts. One of the objectives of this activity is to make everyone in the class aware of other student activities, learn from others, and help each other to solve their problems.

Students are expected to report their weekly progress via Blackboard Blog. Student's blog post should provide information regarding tasks performed, information needed to perform the task, sources considered and utilized to seek information, problems faced, solution utilized to solve the problem, details of community partner interactions, and any other relevant issues faced during the week.

Students are expected to report on the following:

- Provide a summary of activities performed for the week. Discuss the concepts applied, resources used, and experience gained.
- Describe your interactions with the community partner. Provide details regarding objectives for each interaction. Particularly, discuss the following questions: when did you interact with them, what communication medium was used, was there any conflict with partners (if so what was it and how it was resolved), and what was the outcome for each interaction?
- Describe any problem you are facing that is preventing you from accomplishing your tasks. Describe any solution adopted or found, if any.
- Do you have any useful information which may be relevant to your team member's task or which can help improve their performance?

Blog entries must start from week 1 onwards. Student must make at minimum one post per week. If a student misses on-time post entry for a week, one grade point will be reduced towards final grade.

Rubrics for Weekly Sprint Review Meeting Reports (blog entries):

Criteria	Poor (0 points)	Good (0.5 points)	Excellent (1 point)
Frequency of blog entries	No or infrequent participation	Participates occasionally and/or postings are not distributed	Participates at minimum once a week
Commenting on other students posts	No or few comments on other students posts	Comments are superficial contributions to the discussions	Comments make considerable contributions, analyze the posts, and extend the discussions
Software development post contribution	Posts irrelevant information on software development activities	Post contents are factually accurate, but does not draw appropriate sources or materials	Posts makes significant contributions to discussions and draws from appropriate sources or materials
Service learning post contributions	No or few postings on service learning activities	Posts are adequate, but reflect superficial discussions of service learning activities	Posts are well developed and represents sophisticated engagement with service learning

Clarity of posts	Posts are unclear, disorganized, and/or unedited	Posts are organized, well-edited and thoughtfully composed	Posts are organized around a central point, concise, clear, easy to read, and direct to the point.

Service Learning Reflective Essay

At the end of the semester, students are expected to write an essay reflecting on their service learning work as well as on their strategies to become a successful computing professional. There is no specific length or formatting requirements for this essay. Following guidelines should be used to write this reflective essay:

- Service Learning Reflection
  - Describe the nature of the problem addressed in the project.
  - Describe your community partner organization's mission and objectives.
  - Discuss the potential impact of the website for the community partner.
  - Discuss how this course transformed your views of the computing field, the nature of the work performed in the computing field, and your computing knowledge.
  - Discuss how this real-world project work is different from the academic project work.
  - Discuss about your perspective of expected values, commitments, and ethics to be a successful professional.
  - Discuss how computing knowledge gained at UNF helped you complete this project.
  - Discuss how this course helped you be better prepared as a professional. Identify the qualities or skills that you need to develop further to become a successful professional. Describe how you plan to develop those skills and qualities.
  - Provide recommendations to improve this TLO course. Discuss both positive and negative aspects of the course.
  - Describe how your service learning work influences to be a better citizen. Describe how you will apply computing knowledge gained at UNF to promote and improve quality of life within Jacksonville community.
- Computing Professional Reflection
  - Discuss your personal career goals. Describe short-term and long-term goals.
  - Based on your experiences, describe positive and negative aspects of working with a community partner. Describe how well you performed.
  - Based on your experiences with interacting with community partner and working on a real-world project, identify the qualities or skills that you feel need to develop become a computing professional.
  - Discuss your plan for professional development
  - Describe any recommendations for improving this course that could help you achieve your professional goals

CBTL Outcomes and rubrics:

Below given outcomes and rubrics are taken from UNF CBTL assessment site: http://www.unf.edu/ccbl/University-Wide_CBTL_Learning_Outcomes.aspx

Outcome for service learning sub-section:

Effective Citizenship: Students demonstrate the knowledge, skills, values and motivation that promote the quality of life in a community.

Rubrics:

Criteria	Capstone	Milestones		Benchmark
	4	3	2	1
Analysis of Knowledge	Connects and extends knowledge (facts, theories, etc.) from one's own academic study/field/discipline to civic engagement and to one's own participation in civic life, politics, and government.	Analyzes knowledge (facts, theories, etc.) from one's own academic study/field/discipline making relevant connections to civic engagement and to one's own participation in civic life, politics, and government.	Begins to connect knowledge (facts, theories, etc.) from one's own academic study/field/discipline to civic engagement and to one's own participation in civic life, politics, and government.	Begins to identify knowledge (facts, theories, etc.) from one's own academic study/field/discipline to civic engagement and to one's own participation in civic life, politics, and government.

Outcome for computing professional sub-section:
Integrated Connections: Students integrate understanding across both their curricular and co-curricular experiences, from making simple connections among ideas, concepts, and experiences to synthesizing and transferring learning to new, complex, unscripted situations.

Rubrics:

Criteria	Capstone	Milestones		Benchmark
	4	3	2	1
Reflection and Self – Assessment *Demonstrates a developing sense of self as a learner, building on prior experiences to respond new and challenging contexts (may be evident in self-assessment, reflective, or creative work)*	Envisions a future self (and possibly makes plans that build on past experiences that have occurred across multiple and diverse contexts across multiple and diverse contexts).	Evaluates changes in own learning over time, recognizing complex contextual factors (e.g., works with ambiguity and risk, deals with frustration, considers ethical frameworks).	Articulates strengths and challenges (within specific performances or events) to increase effectiveness in different contexts (through increased self-awareness).	Describes own performance with general descriptors of success or failure.

Attendance and Class participation

It is important to attend the class regularly, participate, and contribute in the class discussions. Class participation includes attendance, participation in class discussions, and overall knowledge and interest in the course materials. Class participation grade would be linked to your attendance and participation. While attendance may not necessarily be taken every day, both excessive absences and attendance would be duly noted. In case of excessive absence (<50%), will result in zero grade for class participation. In the case of extreme absence (<25%), you may be given failing grade for the entire course, as the extreme absence equals to not taking the course. If you miss a class, it is your responsibility for obtaining the material that is covered and other information provided in the class. Please note that it is not possible to make up a missed class.

This is a hands-on and project-oriented class. You and your team are expected to provide instructor with updates on project work during every class day. Considerable amount of the class time will be allocated for project work and to conduct discussions with your team members. This allows you to ask instructor any questions that you or team may have. Thus, regular class attendance and participation not only helps you but also your team. Regular class attendance by all team members increases the quality of the work produced by the team. Therefore, students are encouraged to attend class regularly, actively participate in the discussions, ask questions, and voice their opinions respectfully.

School of Computing Symposium
CSI 4930 students are expected to attend the School of Computing Symposium. Final project presentations will be held as part of the symposium.

Other remarks:

- A grade of incomplete will not be given except for catastrophic illness or calamity.
- All university rules regarding classroom behavior and attendance apply.

Course Topics

It is expected that the student will come prepared to the class meetings with questions for instructor on the course topics and project related issues. The student is responsible for all topics presented regardless of their coverage.

Please note that below listing of chapters does not mean that all text in those chapters would be covered in this course. Only materials pertaining to course would be covered. Throughout the course, instructor would provide other supplementary materials to provide targeted guidance to team project deliverables.

Week	Topics	Chapters	Assignment Dues
1	Course and TLO Program Introduction	RB1 Chapters 2 to 4	
	Introduction to Web Technology and Joomla	RB2 Chapters 2 to 5	Team Contract Team Contact Page
2	TLO Internship Orientation		

Week	Topics	Chapters	Assignment Dues
3	Workshop on Requirements gathering and documentation as User Stories	RB3 – Chapters 1 to 7	Interview questions
4	Meeting with Partners to assess their needs and gather Website requirements		
5	Workshop on Building Websites	RB1 Chapters 6 to 9, and 11 RB2 Chapters 6 to 8	User Stories
6	Workshop on Responsive Web Design	RB4: Chapters 2 to 7	Web Design Mockups
7	Building Website Iteration 1		
8	Iteration 1 Report: Website review and feedback sessions with Community Partner		First Iteration Website Release
9	Workshop on Managing Contents Effectively	RB1 Chapters 5, 10, and 12 RB2 Chapter 9	
10	Building Website Iteration 2		
11	Spring Break		
12	Iteration 2 Report: Website review and feedback sessions with Community Partner		Second Iteration Website Release
13	Teaching Partners How to Maintain Website	RB1 Chapters 2 to 4 RB2 Chapter 10	Partner Help Guide Materials
14	Building Website Iteration 3		
15	Final Iteration Report: Website review and feedback sessions with Community Partner		Final Iteration Website Release SoC Symposium
16			Final Report TLO Experience Reflection Essay

Please Note
Instructor reserves the right to modify course to meet the student's needs.
Legends
RB1: Joomla! 3 Beginner's Guide by Eric Tiggeler

RB2: The Official Joomla! Book by Jennifer Marriott and Elin Waring
RB3: User Stories Applied: For Agile Software Development by Mike Cohn
RB4: Implementing Responsive Design: Building sites for an anywhere, everywhere web by Tim Kadlec

Students with Disabilities
Students with disabilities who seek reasonable accommodations in the classroom or other aspects of performing their coursework must first register with the UNF Disability Resource Center (DRC) located in Building 57, Room 1500. DRC staff members work with students to obtain required documentation of disability and to identify appropriate accommodations as required by applicable disability laws including the Americans with Disabilities Act (ADA). After receiving all necessary documentation, the DRC staff determines whether a student qualifies for services with the DRC and if so, the accommodations the student requires will be provided. DRC staff then prepares a letter for the student to provide faculty advising them of approved accommodations. For further information, contact the DRC by phone (904) 620-2769, e-mail drcexams@unf.edu, or visit the DRC website www.unf.edu/drc

Military and veteran students may need both physical and academic accommodations and may contact the DRC to find further information. Military and veteran students who return from combat exposure may be utilizing the post 9/11 GI bill to continue postsecondary education goals. Contact Military and Veterans Resource Center by phone (904) 620-2655 or e-mail mvrc@unf.edu

Satisfactory Progress Policy
The School of Computing enforces the "one repeat" rule for all prerequisite and core courses offered by the School for its major programs. Students who do not successfully complete a prerequisite or core requirement for a School of Computing course on the first attempt (i.e., earn a grade of D, F, W, WP or WF) will be granted one chance to repeat the course. Students who do not successfully complete a prerequisite or core requirement within two attempts will not be permitted to register for courses offered by the School in future semesters. This stipulation applies whether or not the student has declared a major in a School of Computing program.
http://www.unf.edu/ccec/computing/PoliciesGuidelines/Satisfactory_Progress_Policy.aspx