BUS 412: Agile Web Design and Development

Syllabus: Spring 2013

Instructor: Jakob Iversen, Ph.D
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Email: iversen@uwosh.edu

Office hours: MW 8:00-10:00, T 8:00-9:30
Other times by appointment or drop-in.

Time & Location: TR 9:40 - 11:10, Sage 2235 (IS Lab)

Required Texts:
Murach's ASP.Net 4.0 Web Programming with C# 2010, Anne Boehm and Joel Murach
The Agile Samurai, Rasmusson.

Course Goals

Course Description (from the catalog): Learn to create exciting web 2.0 apps that can be turned into businesses. In this class you will study advanced web technologies like HTML 5, CSS, XML, web services, database programming, and ASP.Net to help you create advanced and interactive websites. Using modern agile project management techniques, you will work on a project with a small group of fellow students to create your own website that has the potential to be turned into the foundation for a real business. Prerequisites (BUS 315 OR CS 361) AND (BUS 318 OR CS 262) AND (BUS 355 OR CS 391)

Goals:

- Use SCRUM to manage an agile development project
- Create Rich Internet Applications
- Understand the benefits and limitations of agile development methodologies

Objectives.
Upon completion of the course the students is expected to be able to:

1. Identify and explain the major components of web-based information systems,
2. Explain the need for and application of web-based information systems,
3. Explain the problems associated with web-based information system development and implementation,
4. Implement rich web-based information systems in ASP.Net that are able to access data from databases and web services,
5. Identify and explain the programming patterns related to asynchronous web site updates (such as used in AJAX)
6. Identify and explain the major components of web services,

Topics and technologies:
Apply the following technologies in creating Rich Internet Applications:
- HTML5 and CSS3
- XML
- Web Services (REST, SOAP, WCF)
- Database
- C#, ASP.Net, IIS
- MVC and Web GUI Design

Understanding about important aspects of SCRUM and agile software development:

- Planning game
- Estimating
- Economics of agile vs. waterfall

Proficiently use the following development tools:

- Visual Studio
- Team Foundation Server
- SQL Server
- IIS

Class Structure
In this course, students will work in groups of about 4 students using agile planning principles based on SCRUM (timeboxing, planning game, user stories, big wall charts etc) to develop a marketable web site/app that could potentially form the basis for launching a business.

The course will be ‘flipped’ with most lectures and demonstrations delivered online, and most classroom time set aside for group work. Attendance for group work sessions will be required (each missed class will result in 1 percentage point lost on the group project grade). Each week will have 60-90 minutes of online lectures and demonstrations with quizzes to ensure students watch the material. Additionally, there will be exercises for students to practice the technical material.

The course ends with a VC pitch session where each group has 5-10 minutes to demo their creation and talk about the business potential, including a business plan.

Policies

1. Attendance at every group work class period is required. When working on projects in class, your attendance is necessary to ensure that the group can work effectively. Your group project grade will be reduced by one percentage point for every class period you miss. There are NO excuses to this policy. If you miss a class period with your group, the group has lost the time to collaborate and this time cannot be regained.
2. Online materials (videos, readings, quizzes etc) need to be completed on time in order for you to keep up and provide value-add to your group. Quizzes must be taken by the deadline, or you will receive no credit.
3. All assignments must be turned in on time. We will use the agile concept of timeboxing where the due date is fixed but the requirements can be altered by pushing requirements to the next iteration.
4. In general, a grade of incomplete will only be granted in the case of serious illness or other serious cause. Please note that additional work to raise a final course grade will not be
permitted. Other changes to final grades will be made only in the event of error in grading, recording of grades, or computational errors.

5. Academic misconduct: Please refer to the separate document on Academic Misconduct.

6. The published schedule is tentative and may be changed at any time. An up-to-date schedule is available on D2L.

7. The instructor reserves the right to alter the grading policy if circumstances warrant. Any change in grading policy will be announced.

8. All email will be sent to your UWOSH email address as listed in D2L.

9. Most materials for the class will be available on the course D2L site (www.uwosh.edu/d2l).

10. Failure to complete any portion of the class will result in a failing grade for the course!

### Grading

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Exams (2)</td>
<td>Midterm and final</td>
<td>30%</td>
</tr>
<tr>
<td>Project (45% total weight)</td>
<td>Mid-semester release</td>
<td>10%</td>
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<tr>
<td></td>
<td>VC pitch</td>
<td>5%</td>
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<tr>
<td></td>
<td>Agile management</td>
<td>10%</td>
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<tr>
<td></td>
<td>Peer evaluations</td>
<td>5%</td>
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<tr>
<td></td>
<td>Completed project</td>
<td>15%</td>
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<tr>
<td>Online quizzes</td>
<td>Taken to ensure that online work has been completed</td>
<td>10%</td>
</tr>
<tr>
<td>Exercises</td>
<td>Hands-on exercises practicing the chapter materials</td>
<td>10%</td>
</tr>
<tr>
<td>Professional Experiences (3)</td>
<td>See below</td>
<td>5%</td>
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<tr>
<td>Total</td>
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### Grading Scale

<table>
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<th>Grade</th>
<th>Minimum Score</th>
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<tr>
<td>A</td>
<td>93</td>
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<tr>
<td>A-</td>
<td>90</td>
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<tr>
<td>B+</td>
<td>87</td>
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<tr>
<td>B</td>
<td>83</td>
</tr>
<tr>
<td>B-</td>
<td>80</td>
</tr>
<tr>
<td>C+</td>
<td>77</td>
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<tr>
<td>C</td>
<td>73</td>
</tr>
<tr>
<td>C-</td>
<td>70</td>
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<tr>
<td>D+</td>
<td>67</td>
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<tr>
<td>D</td>
<td>63</td>
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<tr>
<td>D-</td>
<td>60</td>
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<td>F</td>
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</tr>
</tbody>
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### Professional Experiences

You are to participate in at least three professional development activities (e.g., MIS Club meeting, COB Networking Night, Job Fair, ASM meeting, DPMA meeting, etc.) during the semester and hand in a brief memo (no more than one page) on what happened and what you learned from the activity. At most one of these activities can be from an in-class experience from another class (e.g., guest speaker). For Student Club meetings, you can use those meetings that
have a professional component (e.g. those with a guest speaker are OK, but not the end-of-
semester bowling night).

Alternatively you can complete this course requirement by writing a paper (with references) on a
topic related to the course. The minimum length of this paper depends on the number of
professional development activities you participate in. It should be at least four pages if you
participated in one professional development activity, at least six pages for one activity, and at
least eight pages if you didn't participate in any professional development activities. The
memos/paper should be submitted on D2L.

**Extra credit option:** I will award up to two percentage points extra credit for attending a
professional webinar. Each webinar you attend can earn you a maximum of 0.5 points on your
final grade. These webinars must be at least 60 minutes in length, and unless they are listed on
this page: [http://www.itmpi.org/webinars/](http://www.itmpi.org/webinars/), they must be pre-approved by the instructor. To receive
the extra credit, you must attend the entire webinar, and then provide a detailed write-up using
around 500 words describing the content of the webinar, what you learned, and how it relates to
the material discussed in class. Submit writeups to the Extra Credit dropbox. Note that webinars
are available for free for one week after they were held, but it can be difficult to find the free ones,
so you may wish to register for webinars you wish to watch even if you can't attend the posted
time, so you will be notified when they are posted.

**Students with Disabilities**

The University of Wisconsin Oshkosh is committed to providing reasonable accommodation for
students with disabilities. Please contact the Disability Services [Dean of Students Office, 125
Dempsey Hall, 424-3100 (Voice), 424-1319 (TTY)] for the University's accommodation request
form and documentation requirements or visit their website
at [http://www.uwosh.edu/dean/disabilities.htm](http://www.uwosh.edu/dean/disabilities.htm). Information related to an individual's
accommodation request and/or arrangements will be confidential and will be shared with relevant
University personnel or offices on a "need to know" basis.