Course Syllabus
University of Wisconsin – Milwaukee (UWM)
School of Information Studies (SOIS)

Course Title
Senior Capstone

Semester
Spring 2016

Course and Section Number
INFOST 490 – 201

Meeting Times and Location
Online

Instructor
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Drop-In Sessions
On Monday evenings, I will be holding an Online Drop-In Session using the GoToMeeting platform. Students are invited to join us to discuss questions and issues concerning the class. This will serve as an opportunity to meet and start discussions with other students in the class. I expect this to be particularly useful during the early part of the semester when we are forming teams. Your experience will be best when you are using a headset. You may join the GoToMeeting session using this link.

Office Hours
Every Thursday afternoon, I will be holding Office Hours in my UWM office. Please feel free to drop by to ask a question, to discuss a problem, or just to say hello. Meetings or calls at other times may be arranged with me via email.

Catalog Description
Analysis, creation, development and presentation of an information retrieval system project for an information organization. 3 credits. Core course.

General Description
The Senior Capstone course provides the student with two important opportunities. The first of these opportunities is to work with a small team of classmates to project manage, gather requirements for, design, build, test, and install a small information retrieval system for an actual client. The second opportunity is to learn the language, tools, and techniques of agile project management.

Required Text
Agile Project Management for Dummies
by Mark C. Layton
Copyright 2012, John Wiley & Sons

ISBN: 978-1-118-02624-3 (pbk)
ISBN: 978-1-118-22214-0 (ebk)
ISBN: 978-1-118-26074-6 (ebk)
ISBN: 978-1-118-23585-0 (ebk)

Software
You are likely to use a variety of software tools while conducting your group project. Exactly which tools will depend upon the choices made by you and your fellow group members. I will do my best to help you get access to those tools that you will need.

I am planning to arrange for each group to be assigned a SOIS Web Space. This space will have the same features as a SOIS Student Web Space (http://www4.uwm.edu/sois/resources/it/webspace/). The only difference is that the space is accessible by all students within a group.

As part of our class, each group will be conducting a process using the principles of agile project management. We will be using the JIRA Agile software product to help us organize and track our project work. This product has been made available to us by Atlassian Software and installed on a SOIS server by the SOIS technology team. Before you are expected to use JIRA Agile, further directions will be provided.

Course Objectives
As a capstone course, this course is intended to act as a "culminating experience" for the BIST program. Upon completion of this course students will be able to integrate their knowledge accumulated/acquired throughout the BIST program in order to design, develop, implement, and document an information system that meets user requirements. In addition students will:

1. Understand agile project management and how it is different from more traditional approaches to project management.

2. Apply agile project management concepts by working on an agile project team as an active contributor.

3. Apply systems analysis, database design, user interface design and other techniques learned in the BIST program while implementing their project.

Instructional Methods
- Reading
- Lecture
- Discussion
- Planning and execution of a team-based system development project

Prerequisites
Senior status, INFOST 340(P) and INFOST 410(P)

Course Schedule
The schedule for this course is being developed as a separate document this is accessible through our D2L page. When complete, a copy of that schedule will be included as an appendix to this syllabus.

The course schedule is always subject to reasonable change by the instructor to account for changes in circumstance and to correct errors. Schedule changes will be posted to the schedule document and announced to the class via email. This syllabus document will not be updated to reflect schedule changes.

Work Required of Students

Estimated Workload
This is a 3-credit, 400-level course that meets once weekly for 2 hours and 40 minutes of in-class interaction. The UWM guideline is 2.5 hours of work outside of class per credit so you can expect to spend 7-8 hours each week preparing for class or working on assignments, in addition to the course meeting time itself. Time requirements may be higher or lower in any particular week depending on the work assigned for that week. Time requirements may also vary depending upon your own abilities and your system development experience. Grades will be based on work output produced and submitted rather than by the time expended.

Course Elements:

1. *Lectures, Class Sessions, and Meetings*

   a. I will be recording a series of fairly brief lectures that will cover approximately the first third of the course. These will include an introductory lecture and lectures on the readings from the Layton text. You will be expected to listen to these recordings each week.

   b. Discussions will take place on D2L forums. I will post discussion questions regarding the material in the Layton text during the beginning third of the semester. You will be required to post your response to the D2L forum within the class week (Monday through Sunday). Additional credit will be awarded to students who take the time to read posts of other students and to post responses that further the discussion.

   In the latter part of the semester, I will ask each team to post a weekly status update via D2L. This will allow the whole class to keep abreast of progress being made by all of the teams. I will expect the team to rotate this responsibility so that each student gets an equal chance to report status.

   Please remember that a significant part of your Participation grade will depend on your level of contribution to D2L forum discussions.

   c. Once teams are formed, I am expecting each team to hold a minimum of one meeting per week. Historically, teams in my online section have decided to meet at least twice per week. In order to facilitate their meetings, these teams have used tools like Skype to set up conference calls. Teams that have used these voice-based meeting tools have reported a significantly better experience than those using text-based meeting tools. Any team that needs advice on tools for team meetings should contact me directly for help.

   d. As mentioned above, I will be holding an Online Drop-In Session using the GoToMeeting platform each Tuesday evening. Students are invited to join us to discuss questions and

issues concerning the class. This will serve as an opportunity to meet and start discussions with other students in the class. I expect this to be particularly useful during the early part of the semester when we are forming teams. Your experience will be best when you are using a headset. You may join the GoToMeeting session using this link.

2. *Participation*

   a. Each student and project group is expected to actively and constructively participate in the discussion and status reporting portions of each class via D2L forums. I will note contributions by each student and group and use this information to guide the assessment of the "Participation" grade element.

   b. You will also be expected to contribute to your team project meetings and to contribute your assigned work to the team project. At the end of the semester, you will be asked to complete a peer review form for each person on your team. I will consider the results of peer review forms in two ways while grading. First, students with higher average peer review scores will earn higher "Participation" grades. Second, in cases where peer review forms indicate that a student has not engaged with the project team and/or has not made an equitable contribution to the project deliverables, I reserve the right to lower the project deliverables scores earned by that student to reflect his/her lower level of contribution. Given the high weight of Team Project Deliverables in the overall grade calculation, this has the potential to reduce the final course grade by as much as 50%. Considering this, I urge each of you to engage fully with your group as early as possible. If you should have difficulty in engaging with your group, I will expect you to contact me for assistance as soon as possible.

3. *Exams*

   There will be one exam, a midterm, based upon the Layton text. The exam will consist of 50 multiple-choice questions and will be administered via the D2L quiz feature. The quiz will be available for 7 days and there will not be a limit on the number of attempts that you may make. Feel free to consult the text, your notes, the Internet or any other sources. Nevertheless, students must complete the exams themselves and turn in only their own work.

   Students needing special accommodations must visit the Student Accessibility Center for evaluation and provide the instructor the necessary paperwork at least one week in advance of the test date.

4. *Team Project*
   During the first one-third of the semester, you will be learning about agile project management and preparing to form project teams. Project teams of approximately four students each will be formed at the end of this first third of the semester. The final two-thirds of the semester will be devoted to working as a project team to deliver a computer-based systems solution and to manage this effort using agile project management practices.

   Project teams will be formed around project opportunities. A project opportunity happens when a student identifies a willing client organization with a problem or opportunity that can be addressed by a computer-based system solution. Typical client organizations from past classes have included small to medium-sized businesses operated by a student's friends or family, larger businesses in which one or more of the students are currently employed, not-

for-profit organizations, and departments within UWM. Some students already know of project prospects at the beginning of the semester. Others identify project prospects after some brainstorming sessions that we conduct as a class. Since project teams consist of approximately four members, it is not necessary that every student develop their own project opportunity. It is only required that we collectively develop enough opportunities to find a project for all groups.

When identifying a project, it is important to find one where the solution will allow the team to demonstrate the full scope of skills covered by the BSIST program. While a static Web site might meet the immediate needs of a client business organization, it is an insufficient demonstration of system developer skills to meet the project requirements of this course. Qualifying projects typically involve a responsive Web interface to a server-side application that provides for Create, Read, Update, and Delete (CRUD) processing of business records stored in a relational database. When appropriate, your solutions must also provide for basic system security including user authorization and login functions. Since most SOIS BIST students have been trained on the developer tools that make up the LAMP stack (Linux, Apache HTTP Server, MySQL, and PHP), teams often choose the LAMP stack as the platform for their system solutions. Nevertheless, teams are free to choose other platforms for their solutions provided that those platforms provide similar capabilities.

Team formation takes place around project opportunities that have been identified by students in the early weeks of the semester. Obviously, the student or students who identify an opportunity will be assigned to work on that project. Other students are chosen to complete the skills required by the team. Early in the semester, I ask each student to provide a summary of her/his development skills and project interest. These are shared with the whole class so that every student can see potential opportunities for team membership. The final step is choosing teams. In most classes, students have expressed a desire to form teams themselves. In that case, I typically allow students to tell me which group they have joined. In the event that the class is not willing or able to form teams on its own, I will assign students to project teams.

The deliverables expected of each team include the system itself, an in-class demonstration of the system (capabilities, documentation, code), and a project report that summarizes the agile project management process used on the project. More detailed instructions and grading rubrics for each of these deliverables will be published separately.

Grading

Basis for Determining Grade
The various components of student and group work will contribute to the final grade based upon the following percentages:

- Participation (individual and team):   15%

- Midterm Exam (individual):   35%

- Project Deliverables (team):   50%
    o Delivered System (30%)
    o System Demonstration (5%)
    o Project Report (15%)

Letter grades will be determined as follows:

- A   93 - 100%;
- A-   90 - 92%;
- B+   87 - 89%;
- B   83 - 86%;
- B-   80 - 82%;
- C+   77 - 79%;
- C   73 - 76%;
- C-   70 - 72%;
- D+   67 - 69%;
- D   63 - 66%;
- D-   60 - 62%;
- F   0 - 59%;

UWM AND SOIS ACADEMIC POLICIES

The following links contain university policies affecting all SOIS students. Many of the links below may be accessed through a PDF-document maintained by the Secretary of the University: http://www.uwm.edu/Dept/SecU/SyllabusLinks.pdf. Undergraduates may also find the ***Panther Planner and Undergraduate Student Handbook*** useful (http://www4.uwm.edu/osl/students/).

Students With Disabilities
If you will need accommodations in order to meet any of the requirements of a course, please contact the instructor as soon as possible. Students with disabilities are responsible to communicate directly with the instructor to ensure special accommodation in a timely manner. There is comprehensive coverage of issues related to disabilities at the Student Accessibility Center (http://www4.uwm.edu/sac/), important components of which are expressed here: http://www.uwm.edu/Dept/DSAD/SAC/SACltr.pdf.

Religious Observances

Students' sincerely held religious beliefs must be reasonably accommodated with respect to all examinations and other academic requirements, according to the following policy: http://www4.uwm.edu/secu/docs/other/S1.5.htm. Please notify your instructor within the first three weeks of the Fall or Spring Term (first week of shorter-term or Summer courses) of any specific days or dates on which you request relief from an examination or academic requirement for religious observances.

Students Called to Active Military Duty
UWM has several policies that accommodate students who must temporarily lay aside their educational pursuits when called to active duty in the military (see http://www4.uwm.edu/academics/military.cfm), including provisions for refunds, readmission, grading, and other situations.

Incompletes
A notation of "incomplete" may be given in lieu of a final grade to a student who has carried a subject successfully until the end of a semester but who, because of illness or other unusual and substantial cause beyond the student's control, has been unable to take or complete the final examination or some limited amount of other term work. An incomplete is not given unless the student proves to the instructor that s/he was prevented from completing course requirements for just cause as indicated above (http://www4.uwm.edu/secu/docs/other/S31.pdf).

Discriminatory Conduct (such as sexual harassment)
UWM and SOIS are committed to building and maintaining a campus environment that recognizes the inherent worth and dignity of every person, fosters tolerance, sensitivity, understanding, and mutual respect, and encourages the members of its community to strive to reach their full potential. The UWM policy statement (http://www4.uwm.edu/secu/docs/other/S47.pdf) summarizes and defines situations that constitute discriminatory conduct. If you have questions, please contact an appropriate SOIS administrator.

Academic Misconduct
Cheating on exams and plagiarism are violations of the academic honor code and carry severe sanctions, ranging from a failing grade for a course or assignment to expulsion from the University. See the following document (http://www4.uwm.edu/osl/dean/conduct.cfm) or contact the SOIS Investigating Officer (currently the Associate Dean) for more information.

Complaints
Students may direct complaints to the SOIS Dean or Associate Dean. If the complaint allegedly violates a specific university policy, it may be directed to the appropriate university office responsible for enforcing the policy   (http://www4.uwm.edu/secu/docs/other/S49.7.htm).

Grade Appeal Procedures
A student may appeal a grade on the grounds that it is based on a capricious or arbitrary decision of the course instructor. Such an appeal shall follow SOIS appeal procedures for undergraduates as seen here: (http://www4.uwm.edu/sois/programs/graduate/mlis/policies/appeals.cfm) In the case of a graduate student, the Graduate School, (http://www4.uwm.edu/sois/programs/undergraduate/ug_appeals.cfm).

Last Revised