

# **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 – 002

#### **Meeting Times and Location**

Monday and Wednesday, 9:30 AM – 10:45 AM, Northwest Quad Bldg D 1990

#### **Instructor**

Kevin Trainor

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Mobile: 847-650-9706

Office: NWQB-3472

#### **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/webpace/>). 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. Attendance at class sessions is required and will be included in your Attendance, Class and Group Contribution grade. Grading for attendance will be proportional. So, if you miss 5% of class sessions, you will earn a 5% lower attendance score. Some very small number of missed classes can be expected due to uncontrollable circumstances. So, for instance, you could miss 8% of class sessions and still earn an attendance grade of 92. If you have a prolonged absence that is excusable under university policy, please provide me with proof of such so that I may consider this when calculating your attendance grade.
- b. Early in the semester, our classroom sessions will focus on discussion of the material from the Layton text and the organizing of students into teams for the student project. Later in the semester, classroom sessions will be devoted to teams working together on their project with regular reports being made in class by each team on the status of their project. During particularly busy parts of the project, the team may decide to hold additional meetings outside of normal class hours.

#### 2. Participation

- a. Participation in class sessions is required and will be included in your Attendance, Class and Group Contribution grade. Grading for participation will be based on the number of classes in which you participate and the extent of your participation.
- b. In order to accomplish this participation goal, it is imperative that you prepare for class. Please do the readings before we meet in the classroom.
- c. Your participation while working in class with your group will be assessed based on the constructive and collaborative use of this in-class time to interact with your team, share perspectives, and learn from each other interactively.
- d. 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:

- Attendance (individual)  
& Participation (individual and team): 15%
- Midterm Exam (individual): 35%
- Project Deliverables (team): 50%
  - Delivered System (30%)
  - System Demonstration (5%)
  - 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](http://www4.uwm.edu/sois/programs/undergraduate/ug_appeals.cfm) ).

**Last Revised**

2016-01-22