Course Title: Project Management and Systems Analysis
Course Time: Wednesdays 9:00am
Office Hours: Mon and Wednesday, 1:00 – 2:00pm and by appointment
Computer Sciences 5391
Classroom: HC White 4191F
Instructor: Tracy Lewis-Williams, Ph.D., PMP
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Use "LIS640:" in the subject of your email

COURSE POLICIES AND PROCEDURES

There has never been a better time to take this course! The need to identify a problem, analyze user requirements, and propose possible solutions are highly sought after skills! This course has been designed to provide students with a wide variety of opportunities to excel. If you find yourself running into difficulties, your best course of action will be to address your problems *early in the semester*. If I can be of assistance in solving the problem, please do not hesitate to contact me by email, phone, or meet me during my office hours (face-to-face or online). It is also important for you to seek out help from the tools that are in place to help you. One of these tools is our Canvas discussion boards where you can ask questions, give advice, and be an active participant.

This course is divided into weekly learning objectives. When reading, focus on those concepts outlined in the learning objectives. Homework and quizzes will cumulatively cover material in the learning objectives.

To keep everyone on track, the course will consist of weekly learning objectives, recorded lectures, homework assignments, some quizzes, and several team deliverables. It is your responsibility to read the assigned material and watch the video lectures. For the most part, I will be a resource and a facilitator.

Each course unit runs Wednesday 9am to Wednesday 9am. On each successive Wednesday during the term, a new course unit will become unlocked on the website:

1. A new **Unit Overview Page** will be unlocked every week. The overview page is the syllabus for the week. It includes assigned readings, learning objectives, links to lectures, descriptions of homework/quizzes, and links to any supplementary material.
2. Previous weeks' materials will remain viewable at all times
3. **Working ahead**: Material ahead of the current week will be locked. Because some material requires that we work in teams, reading ahead may be necessary (but is not required). If you need special accommodation, please email me directly.

Textbook
We going to thoroughly work through how to identify problems, analyze requirements and design solutions. In doing so, we going to use three textbooks for the course. The textbooks and chapters are available online via the UW library system. Additionally, there are articles and select videos. You are encouraged to keep up with the weekly reading because each of the topics covered is dependent on previous material. Please see the course schedule for more detail on readings.
  ➢ Osborne, Larry N. and Nakamura, Margaret. Systems Analysis for Librarians and Information Professionals, 2nd. ed. Englewood, CO: Libraries Unlimited, 2000.

➢ Cobb, Anthony. Leading Project Teams: The Basics of Project Management and Team Leadership, 2nd Edition. Sage Publications, 2012.

➢ Holtzblatt, K., Wendell, J. S., & Wood, S. Rapid Contextual Design: A how – to guide to key techniques for user–centered design. Morgan Kaufmann, 2005.

If you want to probe deeper into Project Management, there are several optional books for this course:
➢ Bringing the PMBOK: Guide to Life (by Frank P. Saladis & Harold Kerzner; 2009)
➢ CAPM/PMP Project Management Certification All-In-One Exam Guide, Third Edition (Phillips; 2014)
➢ Project Management Body of Knowledge (PMBOK) (Fifth Edition) (PMI; 2013)

Course Software Needs
There are additional software needs for this course. We will use free and open-source:
- www.trello.com
- www.gantter.com

** Please note that you can use your wisc.edu account log into the free Google apps versions of these software applications.

Active Learning
In this course, you will be asked to be an active creator of your own learning. For some of you, the role of an active learner may be uncomfortable, particularly if you are hesitant to trust, share, or defend your ideas/beliefs/conclusions in a public forum. However, I encourage you to challenge yourself.

If we are successful in creating an active learning environment, your learning of the course content, enjoyment and personal development will be far greater than one's experience in a lecture-based class.

Distribution of Additional Class Materials
From time to time, I will distribute supplemental class materials on a required or optional nature. This distribution will be in two forms: an e-mail attachment and available on my web page. All such materials will be as a Word, Power Point, or Adobe PDF format. In order to read these files, the computer you use must have Microsoft Office and Adobe PDF Reader installed. All on-campus computers are already so equipped. If the computer used does not have Microsoft Office you can download it through the UW software online website; you can also download the free Adobe Reader from the Adobe website.

Student Data Form
Your first assignment in this course is complete a student data form that is due the first day of class. This assignment focuses on your background and perceptions of the course.

Statement on Students with Disabilities
Any student who believes that s/he may require special accommodations should let me know within one week of the start of the course. I will try to maintain the confidentiality of this information. I will make every effort to work with you, in conjunction with the UW Disability Resource Office.

Statement on the UW Honor Code
Students in this course are expected to know and follow the University of Wisconsin-Madison Student Honor Code as detailed in the UW Student Handbook. I will vigorously enforce this code and will pursue violators according to UW regulations.

E-mail
E-mail messages will be distributed to you via a class listserv that uses your UW e-mail address. *You are responsible for checking your e-mail at this address on a regular basis*. I will assume that all students receive the messages sent.

Questions about course content, assignments, etc. should be posted to the Canvas discussion boards rather than emailed to me (except for communications of a personal nature). In general, if you have a question others will as well, and it helps us all to have a centralized questions and answers place.

When sending me an email, always put the following at the beginning of your subject line: *"LIS640:"*. Then, you can put a specific subject, such as "*Systems Analysis question*". I generally respond to email within 24 hours, with the following exceptions:
1) On weekends, I only promise to check email on Sunday evening;
2) I will stop answering questions about any assignment at 5 pm central time the day before the assignment is due.

Over the course of the semester I do have some travel and other commitments that may impact my availability in a week; I'll give you advanced warning when it looks like my connectivity may be less than usual.

Appointments
If you are unable to meet during the scheduled office hours, I am available by appointment on Wednesday and Friday. To schedule an appointment, please send me (tracy.lewiswilliams@wisc.edu) three times that are convenient for you. I will try to select one of these times and confirm via email. Note: Ideal times are between 10 AM – 3 PM.

Grading
There is a total of 700 possible points.

ASSIGNMENT	POINTS	DUE
Weekly Unit Assignments and Quizzes	200	Every Wednesday
TEAM COURSE PROJECT: Deliverable One - Information/Requirements Plan and Scheduling Document	100	WEEK 6
TEAM COURSE PROJECT: Deliverable Two – Integrated Project Document	100	WEEK 9
TEAM COURSE PROJECT: Deliverable Three – Audio/Video – Enabled Project Analysis	100	WEEK 13
TEAM COURSE PROJECT: Deliverable Four – Final Project Report	100	WEEK 15
(4) 360 Degree Evaluations (25 pts each)	100	with each Deliverable

Unless another time is indicated in the calendar, all deadlines are midnight (CST) on the date listed.

Quizzes: There will be 10 quizzes throughout the semester. The top 7 scores will be averaged to determine your final quiz grade.

Individual Assignments: There are 10 individual assignments assigned this semester. The first 2 are worth 5 points each, 8 are worth 10 points each, and the final presentation comments assignment is worth 20 points.

Final grade scale: 100-93.5 A; 93.4-89.5 AB; 89.4-83.5 B; 83.4-79.5 BC; 79.4-73.5 C, 69.5-73.4 D, below 69.5 F

Because project management involves knowledge of the subject **and** teamwork, you should notice that 70% of your grade is based on the system analysis of an LIS project. No extra credit opportunities are available in this class. Not participating in the completion of two or more deliverables, OR more than four weekly assignments will result in an automatic F for the course. Though this course does not include a readings-and-participation grade, I expect you to do the reading and work through the class activities! I reserve the right to lower a final grade by one letter grade to reflect lack of attention to regular classwork.

UNIT ASSIGNMENTS

For each unit, you will have an assignment or quiz to complete, due at 9 am CST the next Wednesday. Pay special attention to instructions for turning these in! Some will be posted to Canvas discussion boards (not as Word or PDF attachments, please!), others deposited in a Canvas dropbox, others done via a Canvas quiz.
I will assess written assignments and blog posts on clarity of communication (including spelling and grammar as well as web-writing best practices), depth of thought, and use of links, readings, and other background knowledge as support.

UNIT 1: GETTING TO KNOW YOU and YOUR SYSTEMS/MANAGEMENT GOALS
You will get to know me and my quirky humor. But, I want to get to know you and I want others to get to know you. This week you will complete multiple assignments in order to become familiar with the course and communicating with your classmates.

READINGS: Osborne – Chapter 1

ASSIGNMENTS:
1. Individual Assignment:
    a. Student Data Form,
    b. What my personality type (MBTI) says about me/public introduction
2. Individual Assignment: Student Bingo
3. Individual Assignment: Reading Reflection Paper (1 page)

UNIT 2: A SYSTEMS VIEW OF ANALYSIS AND DESIGN
Believe it or not... we all use systems analysis skills in everyday life. However, learning the tools and techniques of formal systems analysis is like learning a foreign language. We will start off with some simple terminology (nouns), move on to actions (verbs), and then put it all together (complex sentences).

We will also spend some time this week thinking about how we can solve some a societal process in a systematic way - you will learn that there is a systematic way to solve most real-life problems!

READINGS: Osborne – Chapter 2; https://youtu.be/RZ46tHC3n7Y (no sound in video, but the overview is great!)

ASSIGNMENTS:
1. Individual Assignment: Project Definition
2. Individual Assignment: Quiz

UNIT 3: TEAMWORK AND COMMUNICATION
Time to get in our teams! This may be the first time you will meet your semester project teammates. So, let's make sure we understand what it "really" means to work in and manage a team.

Teamwork and communication soft skills are the cornerstone of project management. Spending time working on these concepts as an individual, and as a team, is critical.

You will also begin to learn how to conduct contextual inquiries to identify user requirements. This is the fundamental information on how to conduct interviews with your proposed client. You will use this information more next week...

READINGS: Cobb – Chapter 1

ASSIGNMENTS:
1. Individual Assignment: Team Research Assignment (see Canvas)
2. Individual Assignment: Quiz
3. Individual Assignment: Team project selection
4. Team Assignment: Plan a regular (weekly) hour-long meeting time [Will discuss during class time]

UNIT 4: PROJECT MANAGEMENT ESSENTIALS

It's time to start thinking about your team semester project. During this unit your team will spend some time discussing your project and creating a SWOT analysis of your project. You will also spend some time thinking about the potential stakeholders of the new project.

READINGS: Cobb – Chapter 2; Osborne – Chapter 13; https://youtu.be/9LSnINglkQA

ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Team Assignment: Identifying Potential Projects (SWOT Analysis) and Stakeholders (see Canvas Dropbox)
3. Team Assignment: Information Gathering and Planning Document ASSIGNED
4. Individual Assignment: 360 Peer Evaluation DUE

UNIT 5: DEFINING THE SCOPE & SYSTEMS REQUIREMENTS

Now that your team knows how identify the strengths and weakness of a project as well as who will benefit (or not) from the success of your project, it is time to start identifying the work. Systems requirements analysis is all about identifying all the work to be done – also known as the Scope. Your team will need to gather as much data as you can to assist in outlines the project in the project scope and systems requirements.

READINGS: Cobb – Chapter 3; Osborne – Chapters 4 and 5; https://www.youtube.com/watch?v=u2GD4-7tHqc

ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Individual Assignment: Systems Requirements

UNIT 6: SYSTEM MODELING

This unit will focus on understanding and modeling the system and user requirements. Systems modeling is the heart of project analysis. We will start a conversation on flow charts, data flow diagrams, process decomposition, as well as system and login modeling.

READINGS: Osborne – Chapter 6

ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Team Assignment: Information Gathering and Planning Document DUE
3. Team Assignment: Integrated Project Document ASSIGNED

UNIT 7: PROJECT TIME MANAGEMENT
Slippage in the critical path can cause your project to be delayed, or worst case, FAIL! While it is not due until for two weeks, your team should spend some time thinking about the WBS and schedule for project. Because we are only preforming the project planning and analysis of the system this semester, it is necessary to thoroughly identify the project resources and schedule to ensure the future success of your project.

READINGS: Cobb – Chapter 4

ASSIGNMENTS:
1. Individual Assignment: Gantt Chart assignment [Using gantter.com]

UNIT 8: PROJECT HUMAN RESOURCE MANAGEMENT
After working through approximately six weeks of team work, this unit should speak volumes. The stages of team development will probably stick out in your readings. This class will force your team to move quickly through the forming and storming phases, into the norming and performing phases.

READINGS: Cobb – Chapters 6 and 8

ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Individual Assignment: Understanding Your Team: Becoming a Better Manager
3. Team Assignment: Managing Conflict

UNIT 9: PROJECT STAKEHOLDERS
As you recall time, scope, and cost are the project triple constraints. These constraints can make or break a project, but arguably, stakeholder buy-in is just as important. We will discuss the social network of projects and their importance on project success.

READINGS: Cobb – Chapter 7

ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Team Assignment: Integrated Project Document DUE
3. Individual Assignment: 360 Peer Evaluation DUE

UNIT 10: USER INTERFACE DESIGN AND PROTOTYPING
A useful method for displaying a potential design of a system is rapid prototyping. Prototyping provide cost efficient mechanisms for user to see potential features of the new systems. We will look at low fidelity and high fidelity prototyping techniques.

READINGS: Holtzblatt – Chapters 11 and 12; https://youtu.be/taJOV-YCieI
ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Individual Assignment: Low-Fidelity Prototyping

UNIT 11: ANALYSIS COMPLETE => PRESENTING THE DESIGN
Now that we understand what the current system looks like and possible how a new system will look, we can begin to actually identify what it will take to implement the new system. We will examine system designs and possible alternatives.

Your team will begin to work on a video to share what you found during the analysis phase – the strengths, weaknesses. You will conclude the video with displaying low or high fidelity prototypes of your proposed system changes. Your team has the option of narrating slides or creating a video. This deliverable should contain your project details, potential stakeholders, system models, prototypes, lessons learned, and potential impact of the project.

READINGS: Osborne – Chapters 10 and 11; Example from other LIS programs (See Canvas)
ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Team Assignment: Team Presentation Video ASSIGNED

UNIT 12: MANAGING THE SYSTEM – QUALITY & RISKS

My email tag line is "If you fail to plan, you plan to fall". Successfully managing the implementation of a new system requires understanding your team, the client, and resources that you have available. This communication is key – managing stakeholders, adjusting the schedule, and operationalizing the system requirements.

Within this unit we will discuss and use a number of quality control tool and techniques. While I don't expect you to master these items, it is important to understand their use in project management.

When we identify quality control issues, we must manage our risks. Risk identification deals with understanding the good and bad events that can have an impact on your project. Once the risks have been identified, the project manager can plan accordingly. Proper risk management ensures that there are few surprises within the project life cycle.

READINGS: Cobb – Chapter 5

ASSIGNMENTS:
1. Individual Assignment: Quiz
2. Individual Assignment: Kanban Assignment

UNIT 13: PRESENTING THE DESIGN: PRESENTATION REVIEWS

This week will focus on reviewing what your classmates have worked on for the last three months. You will get a chance to review each of the other projects to provide strengths and possible areas of improvement.

READINGS: NONE

ASSIGNMENTS:
1. Individual Assignment: 360 Peer Evaluation DUE
2. Team Assignment: Team Presentation Video DUE
3. Individual Assignment: Review of other team's videos/projects

UNIT 14: PROVING THE SYSTEM – PROCUREMENT MANAGEMENT

This unit is included so that you will know what to do when you are actually presenting your project to a client and procuring the resources needed for the system. In this unit your team, each team will review the comments from classmates as they will serve as the possible input into the final report and system poster – this is our form

of "testing" your system. Just as your classmates may have questions and require additional information, so will a client.

READINGS: Cobb – Chapter 9; Osborne – Chapter 14

ASSIGNMENTS:
1. Team Assignment: Final Project Report ASSIGNED

UNIT 15: STRATEGIES FOR IMPLEMENTATION

This final deliverable is the complete system analysis and design of your project. In the final report, your team will address comments of praise and concern presented by your classmates. Your team will also create a one-page power point slide to summarize your system. As in the video, this deliverable should contain your project details, potential stakeholders and potential impact of the project.

READINGS: Osborne – Chapter 15; https://youtu.be/BKorP55Aqvg (a little humor to end the semester)

ASSIGNMENTS:
1. Team Assignment: Final Project Report DUE ON FRIDAY
2. Individual Assignment: 360 Peer Evaluation DUE
3. Individual Assignment: Quiz

PROJECT MANAGERS

Formal project management is a highly marketable skill. In order to ensure that everyone develops this skill, each student will get an opportunity to serve as a project manager or co-project manager within this course. There will be 3 – 5 students per team. In an example of a team with 4 students, there will be a project manager for each project deliverable (3 project managers) and one for the final report and poster. This team can also have co-project manager to assist in the leading of each of these tasks. In a team with 3 students, at least 2 students will serve as a project manager on two course tasks.

The project manager is responsible for all communications about the assigned task. The project manager is also responsible for keeping the group "on time and under budget." S/he may come to me at any time with concerns about group progress or group dynamics. Other group members with concerns should approach the project manager first for resolution. Project managers and group are responsible for ensuring that neither the project manager nor any other group member is overloaded. (The project manager doing the entire group project is a failure, not a success!)

The group is also expected to use the online project-management tool Asana or Trello. Please add me to your Asana or Trello group (tracy.lewiswilliams@wisc.edu); I will not interfere, but I will check in with your group at random times by looking in on these tools.

360 EVALUATIONS

You will receive notice on Canvas that there is information about completing an online 360 evaluation of each group member. I will use this information to raise or lower final 360 evaluation grade; all comments and ratings are confidential.

SEMESTER PROJECT

There are numerous systems needs in the domain of library sciences. Your team will select one systems problem to serve as your semester project. Your team will learn about the multi-facets of systems analysis and design by performing an in-depth analysis of the problem.

The first individual assignment is to brainstorm possible ideas. I will narrow the list down and share the ideas with course. You will need to document your project idea and potential stakeholders, so make sure that it is a viable project. Each student will then be able to self-select in a project team and project idea.

Course Learning Objective	Related to SLIS Program-Level Outcomes(s)	Assignments providing evidence of Program-Level Outcome(s)	How mastery of Program-Level Outcomes(s) will be assessed
Understand the concepts and practical implementation of systems analysis and design principles.	1a. Students apply key concepts with respect to the relationship between power, knowledge, and information.	Weekly Quizzes; Deliverable One; Deliverable Two; Deliverable Three	Grading rubrics associated with each assignment
Examine the effective use of project management to successfully identify, plan, and design a project.	3d. Students understand and use appropriate information technologies. 4a. Students evaluate, problem solve and think critically, both individually and in teams.	Deliverable One; Deliverable Two; Deliverable Three	Grading rubrics associated with each assignment
Construct a project charter that identifies project scope, stakeholders, and business needs.	4b. Students demonstrate good oral and written communication skills.	Deliverable One; Deliverable Two; Deliverable Three	Grading rubrics associated with each assignment
Identify system requirements for implementing a project in a context-specific domain.	4a. Students evaluate, problem solve and think critically, both individually and in teams. 4b. Students demonstrate good oral and written communication skills. 4d. Students demonstrate innovation and skills necessary for leadership.	Team Assignment: Deliverable One	Grading rubrics associated with each assignment
Analyze and critique real world case studies to illustrate the issues associated with complex projects outlets.	4a. Students evaluate, problem solve and think critically, both individually and in teams.	Individual Assignment: Reflection Paper	Reflection paper graded on clarity and comprehension

Course Learning Objective	Related to SLIS Program-Level Outcomes(s)	Assignments providing evidence of Program-Level Outcome(s)	How mastery of Program-Level Outcomes(s) will be assessed
Create and use data flow diagrams and system models to analyze a problem	4a. Students evaluate, problem solve and think critically, both individually and in teams.	Deliverable Two; Individual Assignment: System Models	Grading rubrics associated with each assignment