



ARIZONA STATE UNIVERSITY
GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

Copy and paste current course information from [Class Search/Course Catalog](#).

Academic Unit WP Carey School of Business Department Information Systems

Subject CIS Number 440 Title Systems Design & Electronic Commerce Units: 3

Is this a cross-listed course? No
If yes, please identify course(s) _____

Is this a shared course? No If so, list all academic units offering this course _____
Course description: _____

Requested designation: Literacy and Critical Inquiry-L

Note- a separate proposal is required for each designation requested

Eligibility:

Permanent numbered courses must have completed the university's review and approval process.
For the rules governing approval of omnibus courses, contact Phyllis.Lucie@asu.edu or Lauren.Leo@asu.edu.

Submission deadlines dates are as follow:

For Fall 2015 Effective Date: October 9, 2014

For Spring 2016 Effective Date: March 19, 2015

Area(s) proposed course will serve:

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

Checklists for general studies designations:

Complete and attach the appropriate checklist

- [Literacy and Critical Inquiry core courses \(L\)](#)
- [Mathematics core courses \(MA\)](#)
- [Computer/statistics/quantitative applications core courses \(CS\)](#)
- [Humanities, Arts and Design core courses \(HU\)](#)
- [Social-Behavioral Sciences core courses \(SB\)](#)
- [Natural Sciences core courses \(SQ/SG\)](#)
- [Cultural Diversity in the United States courses \(C\)](#)
- [Global Awareness courses \(G\)](#)
- [Historical Awareness courses \(H\)](#)

A complete proposal should include:

- Signed General Studies Program Course Proposal Cover Form
- Criteria Checklist for the area
- Course Catalog description
- Course Syllabus
- Copy of Table of Contents from the textbook and list of required readings/books

Respectfully request that proposals are submitted electronically with all files compiled into one PDF. If necessary, a hard copy of the proposal will be accepted.

Contact information:

Name Joseph W. Clark Phone 480-965-0024

Mail code 4606 E-mail: joseph.w.clark@asu.edu

Department Chair/Director approval: (Required)

Chair/Director name (Typed): Michael Goul Date: 2/9/2015

Chair/Director (Signature): 

Arizona State University Criteria Checklist for
LITERACY AND CRITICAL INQUIRY - [L]

Rationale and Objectives

Literacy is here defined broadly as communicative competence—that is, competence in written and oral discourse. **Critical inquiry** involves the gathering, interpretation, and evaluation of evidence. Any field of university study may require unique critical skills that have little to do with language in the usual sense (words), but the analysis of written and spoken evidence pervades university study and everyday life. Thus, the General Studies requirements assume that all undergraduates should develop the ability to reason critically and communicate using the medium of language.

The requirement in Literacy and Critical Inquiry presumes, first, that training in literacy and critical inquiry must be sustained beyond traditional First Year English in order to create a habitual skill in every student; and, second, that the skill levels become more advanced, as well as more secure, as the student learns challenging subject matter. Thus, two courses beyond First Year English are required in order for students to meet the Literacy and Critical Inquiry requirement.

Most lower-level [L] courses are devoted primarily to the further development of critical skills in reading, writing, listening, speaking, or analysis of discourse. Upper-division [L] courses generally are courses in a particular discipline into which writing and critical thinking have been fully integrated as means of learning the content and, in most cases, demonstrating that it has been learned.

Notes:

1. ENG 101, 107 or ENG 105 must be prerequisites
2. Honors theses, XXX 493 meet [L] requirements
3. The list of criteria that must be satisfied for designation as a Literacy and Critical Inquiry [L] course is presented on the following page. This list will help you determine whether the current version of your course meets all of these requirements. If you decide to apply, please attach a current syllabus, or handouts, or other documentation that will provide sufficient information for the General Studies Council to make an informed decision regarding the status of your proposal.

Revised April 2014

Proposer: Please complete the following section and attach appropriate documentation.

ASU - [L] CRITERIA		
TO QUALIFY FOR [L] DESIGNATION, THE COURSE DESIGN MUST PLACE A MAJOR EMPHASIS ON COMPLETING CRITICAL DISCOURSE--AS EVIDENCED BY THE FOLLOWING CRITERIA:		
YES	NO	Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CRITERION 1: At least 50 percent of the grade in the course should depend upon writing assignments (see Criterion 3). Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report. <i>In-class essay exams may not be used for [L] designation.</i></p> <p style="text-align: right;">CIS440syllabus.pdf, individual_assignments.pdf</p>
<p>1. Please describe the assignments that are considered in the computation of course grades--and indicate the proportion of the final grade that is determined by each assignment.</p>		
<p>2. Also:</p> <div style="border: 1px solid black; border-radius: 50%; padding: 20px; text-align: center;"> <p style="background-color: #ffff00; display: inline-block; padding: 5px;">Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-1".</p> </div> <p style="text-align: left; margin-top: 10px;">C-1</p>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CRITERION 2: The writing assignments should involve gathering, interpreting, and evaluating evidence. They should reflect critical inquiry, extending beyond opinion and/or reflection.</p> <p style="text-align: right;">individual_assignments.pdf</p>
<p>1. Please describe the way(s) in which this criterion is addressed in the course design.</p>		
<p>2. Also:</p> <div style="border: 1px solid black; border-radius: 50%; padding: 20px; text-align: center;"> <p style="background-color: #ffff00; display: inline-block; padding: 5px;">Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-2".</p> </div> <p style="text-align: left; margin-top: 10px;">C-2</p>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CRITERION 3: The syllabus should include a minimum of two writing and/or speaking assignments that are substantial in depth, quality, and quantity. Substantial writing assignments entail sustained in-depth engagement with the material. Examples include research papers, reports, articles, essays, or speeches that reflect critical inquiry and evaluation. Assignments such as brief reaction papers, opinion pieces, reflections, discussion posts, and impromptu presentations are not considered substantial writing/speaking assignments.</p> <p style="text-align: right;">CIS440syllabus.pdf, individual_assignments.pdf</p>
<p>1. Please provide relatively detailed descriptions of two or more substantial writing or speaking tasks that are included in the course requirements</p>		
<p>2. Also:</p> <div style="border: 1px solid black; border-radius: 50%; padding: 20px; text-align: center;"> <p style="background-color: #ffff00; display: inline-block; padding: 5px;">Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-3".</p> </div> <p style="text-align: left; margin-top: 10px;">C-3</p>		

ASU - [L] CRITERIA

YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>CRITERION 4: These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. <i>Intervention at earlier stages in the writing process is especially welcomed.</i></p>	<p>CIS440syllabus.pdf, individual_assignments.pdf, course schedule</p>
<p>1. Please describe the sequence of course assignments--and the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments</p>			
<p>2. Also:</p> <div style="border: 1px solid black; border-radius: 50%; padding: 20px; text-align: center; margin: 20px auto; width: 80%;"> <p style="background-color: yellow; padding: 5px;">Please circle, underline, or otherwise mark the information presented in the most recent course syllabus (or other material you have submitted) that verifies this description of the grading process--and label this information "C-4".</p> </div> <p>C-4</p>			

Course Prefix	Number	Title	General Studies Designation
CIS	440	Systems Design & Electronic Commerce	L

Explain in detail which student activities correspond to the **specific** designation criteria.
Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
Criterion 1: At least 50 percent of the grade in the course should depend on writing assignments.	60% of the course grade depends on an individual research project, which includes three writing assignments: a proposal, literature review and problem analysis, and a final report on empirical research.	See CIS440syllabus.pdf, page 2 for grade breakdown. See individual_assignments.pdf for descriptions of writing assignments.
Criterion 2: The writing assignments should involve gathering, interpreting, and evaluating evidence. They should reflect critical inquiry, extending beyond opinion and/or reflection.	Philosophically, the course is based on an attitude of empiricism and abductive reasoning consistent with information systems design science and "the sciences of the artificial". This is particularly evident in the design of the group project, but the individual research project as well is required to build on library research with empirical hypothesis testing.	See CIS440syllabus.pdf, page 1 for the philosophy of the course. See individual_assignments.pdf for the expected research activities in each of the individual assignments. See TOC from required readings.
Criterion 3: The syllabus should include a minimum of two writing and/or speaking assignments that are substantial in depth, quality, and quantity.	The individual research project has three written milestones, the proposal (5% of course grade), the literature review and problem analysis (20%), and the final term paper which is a report of empirical research conducted by the student (30%). The latter two milestones are substantial in depth, quality, and quantity.	See individual_assignments.pdf for descriptions of the writing assignments.
Criterion 4: These substantial writing or speaking assignments should be arranged so that the students will get timely	Students will receive feedback on their theses (at least) twice in the semester. First, after submitting a proposal, the student will receive feedback on likely sources of literature and approaches to the chosen problem. After delivering and presenting the first major milestone, the literature review and problem analysis, the student	See 'CIS440 FALL2015 schedule v1.pdf' for the course calendar, which is pretty similar in the spring semester. Also see individual_assignments.pdf for descriptions of the milestones with deadlines. Note that around the time of the second milestone (literature review and problem analysis) the students will also give presentations in class, another excellent opportunity for feedback.

feedback from the instructor on each assignment in time to help them to do better on subsequent assignments.	can receive feedback from the professor and from classmates as to possible methods for conducting the required empirical analysis. Students can also receive feedback on the quality of their writing and adequacy of their research work, in order to better know what is expected in the grading of later milestones.	
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CIS 440 – Systems Design and Electronic Commerce

Fall 2015 Syllabus

Professor: Joseph W. Clark
Office: BA 301J
Office Phone: 480-965-0024
Office Hours: 11am-1pm, M/W/F, or by appointment
E-mail: joeclark.phd@gmail.com
Github Account: joeclark-phd

Course Description and Objectives

CIS 440 is the capstone course for the CIS undergraduate program. Over the fifteen weeks of the course, you and your classmates will work in self-organizing teams to complete IT projects that deliver tangible value to real organizations. At the same time, you will undertake an individual research project on an information systems topic of your choice, with the goal of thoroughly understanding an important problem in information systems and empirically investigating potential solution(s). In both the group and individual projects, you will apply the breadth of knowledge that you have acquired through earlier CIS coursework, internships, and work experience, and learn new skills on-the-job.

Through lectures and readings, I will recommend to you an attitude of empiricism and even entrepreneurial investigation into the work of information systems development: not "how to program" (anyone can learn that!), but rather, "how to design the best processes for producing high-quality software". This will include a look at project management approaches--traditional and agile--but will also include modern engineering practices, DevOps, and continuous delivery.

C2

Learning Outcomes

At the end of this course, you should be able to:

- work as a member of an agile IS development team using Agile methods and tools;
- demonstrate the ability to learn new tools and techniques when needed;
- show off a completed software project as part of your professional portfolio;
- conduct empirical research in the information systems design science tradition; and
- speak as an expert on a meaningful and challenging topic in information systems.

The individual and group capstone projects are the final milestones of your CIS degree program and you are expected to put forth a great deal of effort. You will need to dedicate a significant amount of outside time for readings, project work, and meetings with your team and your clients.

Course Materials

Three textbooks are required reading for this course:

1. *The Elements of Scrum (Version 1.01)*, by Chris Sims & Hillary Louise Johnson. Dymaxicon, 2011. ISBN: 978-0-9828669-1-7
2. *The Lean Startup*, by Eric Ries. Crown Business, 2011. ISBN: 978-0307887894
3. *The Phoenix Project*, by Gene Kim, Kevin Behr, & George Spafford. IT Revolution Press, 2013. ISBN: 978-0988262508

Course Schedule

See attachment.

W. P. Carey School Learning Objectives

The Undergraduate Program of the W. P. Carey School of Business has established the following learning goals for its graduates:

- 1. Critical thinking**
- 2. Communication**
- 3. Discipline specific knowledge**
4. Ethical awareness and reasoning
5. Global awareness

Items in bold have significant coverage in this course.

Grade Breakdown

Grades will be assigned based on the following scale:

<60: E
60-69.99: D
70-76.99: C
77-79.99: C+
80-82.99: B-
83-86.99: B
87-89.99: B+
90-92.99: A-
93-96.99: A
97+: A+

Assignments

Course assignments are weighted toward the final grade as follows:

Individual Research Assignments (60%)

Assignment	Due Date	Points
Research Proposal	Sept. 15	5%
Literature Review & Problem Analysis	Oct. 22	20%
Mid-term Presentation	Oct. 6-22	5%
Final Term Paper	Dec. 10	30%

Note: Red annotations in the original image show 'C4' pointing to the Due Date column and 'C1' pointing to the Points column.

Group IS Development Project Assignments (40%)

Assignment	Due Date	Points
Milestones 0.1-0.4	Sept. 3 -Nov. 12	4%(x4)
Release 1.0 & Project Showcase	Dec. 1 (tentative)	7%
Group Project Report	Dec. 3	7%
Client Feedback	Dec. 10	10%

Email/Online Communication

One of my jobs is to help you deal with obstacles and get the resources or help you need to succeed in these projects, so I encourage you to stay in communication with me. When e-mailing me, please indicate in the subject line that it is for CIS 440 and which section you are in. Be sure to sign it with your full name, and state your problem clearly. You can expect me to check my e-mail at the beginning and end of the work day, but not necessarily on weekends or at night. If you think you'll need urgent help outside of the work week, let me know in advance.

Group Policies

You will form groups of 3-5 members for the course project. It is important to make sure you are working well with your teammates. When forming teams, it is *strongly* recommended that you communicate frankly about expectations and identify any potential problems early on. At the time of the final exam, teammates will have a chance to grade one another on their performance. If students would like to change their teams for a good reason, I will consider such changes on a case-by-case basis.

Late Work

Most assignments are due at the end of the day on the due date (i.e. midnight). If I receive them late within the next 7 days, I'll accept them but take 25% off. I usually don't accept work later than 7 days after the due date. Work that is due to be delivered during class time (i.e. presentations) cannot be accepted late. The final term paper cannot be turned in late. Contact me if you need an accommodation for some kind of emergency.

Class Attendance and Participation

Class attendance is necessary to achieve the maximum benefit from this class. You are expected to attend every class. Excessive absences will affect a student's course grade and/or result in removal from the course. If a student is unable to attend class for any reason, they should notify the instructor and their teammates as soon as possible by email. In accordance with ASU policies, accommodations will be made for students observing religious holidays, or missing class related to university-sanctioned activities. Please let me know as early as possible.

- ASU calendar of religious holidays (sorry, Pastafarians):
<https://provost.asu.edu/index.php?q=religious-holiday-calendar>
- Policy on university-sanctioned activities (ACD 304-02):
<http://www.asu.edu/aad/manuals/acd/acd304-02.html>

Academic Integrity

From the ASU General Catalog: "The highest standards of academic integrity are expected of all students. Failure to meet these standards may result in suspension or expulsion from the university and other sanctions as specified in the academic integrity policies of the individual colleges." By law and regulation, this course will be conducted within the ethical standards of ASU at large, which preclude such activities as plagiarism, cheating, and various forms of harassment. Statement/policy on these issues: <http://provost.asu.edu/academicintegrity>

Students with Disabilities

If you wish to request accommodation for a disability, you need to be registered with the Disability Resource Center (DRC) and provide documentation from the DRC.

Threatening or Disruptive Behavior

We will follow the ASU Student Services Manual (SSM 104-02) if there are any cases of disruptive, threatening, or violent behavior that arise. Individuals can be asked to leave the premises or the police may be called in an extreme situation.

Classroom Etiquette, Professionalism and the Learning Environment

It is an extremely high priority of your instructor that the classroom experience be one that promotes a learning environment for all students present. Students, taxpayers and many other University stakeholders have paid of their money, time and resources to make this classroom environment available to you. There are a variety of behaviors which are violations of classroom etiquette because they (1) distract other students, (2) distract the instructor, and (3) distract the student exhibiting the behavior. In order to assure an environment that promotes learning for everyone present the following behaviors will absolutely not be tolerated:

1. Using your laptop (surfing the web) for anything other than class business.
2. Talking during inappropriate times.
3. Showing up late for class.
4. Doing homework for another class during the normally scheduled class time.
5. Listening and/or viewing audio/video devices during class.

Each instance where a student is found to be in violation of classroom etiquette will cost that student 1% off the total 100% available for the class score. There is no limit to the number of percentage points a student may lose due to these violations.

CIS440 Individual Assignments

Your individual capstone research project requires in-depth, empirical investigation of an important problem in information systems development, operations, or management. You may select a *product* problem or a *process problem*, for example:

- the design of a search engine for a particular type of data
- how to balance breadth and depth in software testing
- implementing multi-language support while avoiding spaghetti code
- the challenge of project management for geographically distributed teams
- techniques for attaining, and measuring, search engine optimization

You will probably benefit from choosing a topic that will help you in your group project, but you are not required to do so. Your group project could be a good context in which to experiment with solutions to the problem you are studying. However, you are individually responsible for this research, and it need not be related to what your groupmates are working on.

There are four major deliverables of your individual work, which constitute 50% of your overall course grade, detailed below:

Research Paper Proposal (September 15, 5%)

In about five pages (1000-2000 words), identify the problem that you will be working on. You must convince me that the problem is real and meaningful --- that is, solving it matters. You must also show that it is challenging and non-trivial (i.e., there's no single obvious best solution). Give a preview of how you will investigate the problem: who can you interview, what sources will you read, and how will you gather direct evidence.

I recommend that you talk to me **before** the due date for help choosing a good research topic.

Literature Review and Problem Analysis (October 22, 20%)

In this mid-term paper, present a thorough analysis of the problem based on your research. By this point you should have reviewed a broad range of literature on the topic --- books, articles, lectures, and other media --- and made sure you understand multiple points of view on the problem and its solutions.

For full credit, you must also have interviewed at least two experts or practitioners who have some knowledge about the topic, and incorporate some of their views in your literature review.

Based on the understanding you have acquired from this research, you must outline your plan for conducting empirical research in the remaining half of the semester. This plan should focus on one or more potential solutions to the problem you have studied, and use data or experience to test its implied hypothesis. For example, you may plan to create and test a software implementation of the proposed solution. Alternatively, you may conduct case study research with a real organization, survey research, archival data analysis, or experimentation.

The mid-term paper should be about twenty pages (about 4000-6000 words), professionally written, and may include parts of the proposal you submitted earlier. Submit via Blackboard.

C4

Individual Research Presentation (Oct 6 - 22, in class, 5%)

In a presentation to your classmates, deliver a condensed version of the mid-term literature review and problem analysis. In addition to discussing your research at a general level, you may want to demonstrate a specific piece of technology or focus on a particular piece of data (such as a case study), with the goal of making the talk interesting and relevant to your classmates' work. Briefly discuss how you intend to conduct empirical research in the second half of the semester.

C4

Final Term Paper (December 10, 30%)

The final term paper must include the research and analysis submitted in the mid-term paper, as well as a thorough report on the empirical work you conducted in the second half of the semester, and a discussion of your findings. The research write-up should describe your methodology and process, the data or measurements of results, and some conclusions as to whether your hypotheses were supported or unsupported. In accordance with the iterative and empirical approach we have taken this semester, you are expected to document the development and testing of your ideas over time, rather than merely report the theory you ended up with. The exact form of this write-up will vary according to your chosen research methods, but it is essential that you not merely report your results but also think critically about the reasons for them, and their implications.

C2

The final paper should be about 30 pages (roughly 8000-10,000 words) and it may contain large portions of the proposal and mid-term paper. Deliver a hard copy to my office (or the IS department front office, if I am out) and submit the electronic version via Blackboard. My expectations are that it be professionally written and edited, that it reflects a thorough understanding of a meaningful problem in information systems, and that it reports thoughtfully on a rigorous empirical study of at least one potential solution to that problem.

C3

CIS440 Group Project Assignments

The group capstone project is a software development project to be developed iteratively and delivered in seven "releases" as well as a final report. Acceptable projects include web applications, mobile applications, data analytics, and more. Each project must have a responsible client outside of the class who will serve as a contact person and ultimately help me to grade your work. These may include established companies, start-up businesses and individual entrepreneurs, nonprofit organizations, or academic researchers. Requirements and grading criteria for each release are documented below.

Release 0.1 (4pts, September 3)

By August 27, you will have formed teams and identified projects.

On September 3, you must present an initial overview of the project to your classmates. This will include crafting an initial README.md file, identifying the high level tasks to be completed this semester, and preparing paper mockups or digital prototypes to communicate the design goals. The README file and prototypes should be committed to a GitHub repository, and the tasks should be entered into a waffle.io task board. You will give a 5-10 minute presentation to your classmates.

Release 0.2 (4pts, October 1)

By September 17, you are to have set up the "technology stack" for your project and integrated all the moving parts, so that it is possible to begin adding features. For example, if you are creating a PHP/MySQL based website, you need to have set up the database and some of its tables, established a web hosting account, decided on a PHP version, and created at least one basic "hello world" page with links to a basic CSS file. Determining a folder structure, and perhaps creating dummy files for pages yet to be developed, are also good ideas. Commit the current version of your code to the GitHub repository.

This step is vital because it makes it possible to test and demonstrate new features. With the technology stack in place, someone could make a change to the CSS (or something) and test it with all the other components working. For full credit, you also need to provide **a set of instructions** for others to use your software. I, or anyone else, should be able to follow these instructions to get your project up and running. Therefore, in addition to your code, you need to provide information about how your server is set up, and you'll probably need to provide the SQL scripts to set up your database. A sign of good design is that the list of instructions doesn't need to be too long!

Finally, in your presentation to the class, point out areas where you'd like classmates to help.

Release 0.3 (4pts, October 29)

At this time, your project should be a "navigable" prototype that can be shown to potential users for their feedback. Not all of the features need to be working, but you should have prototypes of the core features, and dummy pages or "stubs" in place of other features yet to be developed, as well as site navigation so that you can pretend to demonstrate most of the intended features. You should also have a basic visual style (i.e. fonts and colors) although it doesn't need to be perfect -- just enough to have something people can give feedback on.

Carry out some "user testing" with at least 3 people (ideally, with intended customers or end users) to get some feedback on the usability of your software. You might want to video their experiences with your product. In your presentation to the class, tell us some of the feedback they gave you, and show us at least one specific change you have made as a result of this testing.

Release 0.4 (4pts, November 12)

By now your software should be substantially complete. This is the time to get as many less-important features done as possible, and let your client know which features probably won't get done in this semester. The client should be involved in determining these priorities and helping you decide what to include and what to defer. You may want to start removing links to pages that aren't going to be finished, and generally polishing the details.

In your presentation to the class, show us the new features you have built, and convince the professor that you will be ready to "go live" in two weeks.

This next two weeks should be mostly devoted to testing the software, fixing bugs, and completing the documentation, so that you can "go live" (at least to beta testers) on the day of the demonstration. Implement some form of testing – either “verification” testing to identify bugs, or “validation” testing to gather feedback from live users on the design and usability of your software. The testing plan should be documented in the GitHub repository (perhaps in a folder called “tests”).

Release 1.0 (7pts, tentatively December 1)

Give a public demonstration and presentation about your completed project. This will be conducted as an "expo" for other students, faculty, staff, and friends of the Information Systems department to see your projects. Each team will be provided with a table to set up their demo. There will be easels available for displaying posters. I can't guarantee you'll be near a power outlet, so make sure your batteries are charged. You should be prepared to give a good brief demonstration, and answer questions about:

- What feedback you received from the testing you conducted, and how you responded to it.
- How the project evolved and changed during the course of development.
- What's the path going forward for this project, and what you might have done if you had had extra time.

I'll invite your clients/sponsors to the showcase, and after this event I'll give them a questionnaire to provide feedback that impacts your grade. So give it a good effort!

Project Report (7pts, due December 3)

Prepare a report of at least 20 pages that tells the story of your successful project. At a minimum, it should include the following:

- Title page, table of contents, and 1-page summary.
- Identify the client, the problem, and the proposed solution.
- Identify the team members.
- Give an overview of functionality, actual and planned.
- Identify the most significant technical or business challenges posed by this project, and how you approached them.
- Describe the technology stack and any info needed to understand the code.
- Describe your testing or evaluation activities and findings.
- Tell us what's next for the software. Did it go live? Will it be developed further?

Feel free to embellish the report with graphics, code documentation, usage instructions, and other valuable information. A major objective here is to have a "success story" that you can add to your portfolio and that I can share with other potential capstone project clients.

All Releases

In addition to specific milestones and deliverables above, all releases require the following for full credit:

- All tasks for previous releases must be complete.
- Task board must be updated to show what has been finished, and how the backlog has changed, since the previous release.
- README file and instructions for use must be up to date with any changes to the project.
- Code and other files should be committed to the GitHub repository.

Extraordinary Projects

If your project is not a "typical" software development project, and some of the above milestones don't make sense for it, contact me directly for guidance on what to deliver and when.

Additional Notes on Grading

Your clients will complete a feedback questionnaire after the final delivery (ideally around December 1). Their feedback determines 10% of your course grade.

Furthermore, at the end of the semester, all students will have the opportunity to rate their teammates' performance, and the average ratings can reduce your project score by 0-100%. (For example: if your team earns 40 points out of 50, but your teammates rate you at an average of 75%, you would get $40 * 0.75 = 30$ points for the group project.) Therefore it is important to form a good working relationship with your team, and resolve any potential problems before they become critical.

CIS 440 - Systems Design and Electronic Commerce

Fall 2015 Course Schedule

FALL2015-TTh	Dates	topic	reading	assignment due (by end of day unless specified)
week 0	20-Aug	introduction	tEoS intro-ch.4	read syllabus, view group project proposals
week 1	25-Aug 27-Aug	idea generation requirements gathering	tEoS ch. 16 tEoS ch. 9-10	form groups and sign up for group projects
week 2	1-Sep 3-Sep	using GitHub demo day 1	try.github.io (do tutorial) tEoS ch. 5-7	create GitHub account release v0.1 to GitHub
week 3	8-Sep 10-Sep	modern toolsets information radiators	tEoS ch.8	
week 4	15-Sep 17-Sep	[reserved for guest speaker] [reserved for guest speaker]	youtu.be/hG4LHGp8Syk	(individual) term paper proposal
week 5	22-Sep 24-Sep	build, measure, learn innovation accounting	TLS part 1 TLS part 2	
week 6	29-Sep 1-Oct	achieving agility demo day 2	TLS part 3	release v0.2 to GitHub
week 7	6-Oct 8-Oct	individual research presentations individual research presentations		
week 8	13-Oct 15-Oct	FALL BREAK (no class) individual research presentations		
week 9	20-Oct 22-Oct	individual research presentations individual research presentations		(individual) literature review + problem analysis
week 10	27-Oct 29-Oct	building quality in software demo day 3		release v0.3 to GitHub
week 11	3-Nov 5-Nov	software testing automated testing	youtu.be/ILKT_HV9DVU youtu.be/ukm64lUjANwE	
week 12	10-Nov 12-Nov	continuous integration demo day 4		release v0.4 to GitHub
week 13	17-Nov 19-Nov	challenges in IT operations integrating dev and ops	TFP ch. 1-7 TFP ch. 8-16	
week 14	24-Nov 26-Nov	making IT work for the business THANKSGIVING (no class)	TFP ch. 17-end	
week 15	1-Dec 3-Dec	CAPSTONE PROJECT SHOWCASE exit interviews		release v1.0 & final presentation of group project group project final report
finals week	8-Dec 10-Dec			(individual) final term paper

CIS 440 – Systems Design and Electronic Commerce

Course Catalog Description

Systems design for organizational and electronic commerce systems; use of project management and systems analysis and design tools.

Required Readings

Three textbooks are required reading for this course:

1. *The Elements of Scrum (Version 1.01)*, by Chris Sims & Hillary Louise Johnson. Dymaxicon, 2011. ISBN: 978-0-9828669-1-7
2. *The Lean Startup*, by Eric Ries. Crown Business, 2011. ISBN: 978-0307887894
3. *The Phoenix Project*, by Gene Kim, Kevin Behr, & George Spafford. IT Revolution Press, 2013. ISBN: 978-0988262508

Covers and Tables of Contents are attached. (Note: *The Phoenix Project* has no Table of Contents.)

THE ELEMENTS OF SCRUM



by Chris Sims & Hillary Louise Johnson

VERSION 1.01

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THE NEW YORK TIMES BESTSELLER

THE LEAN STARTUP

How Today's Entrepreneurs Use
Continuous Innovation to Create
Radically Successful Businesses

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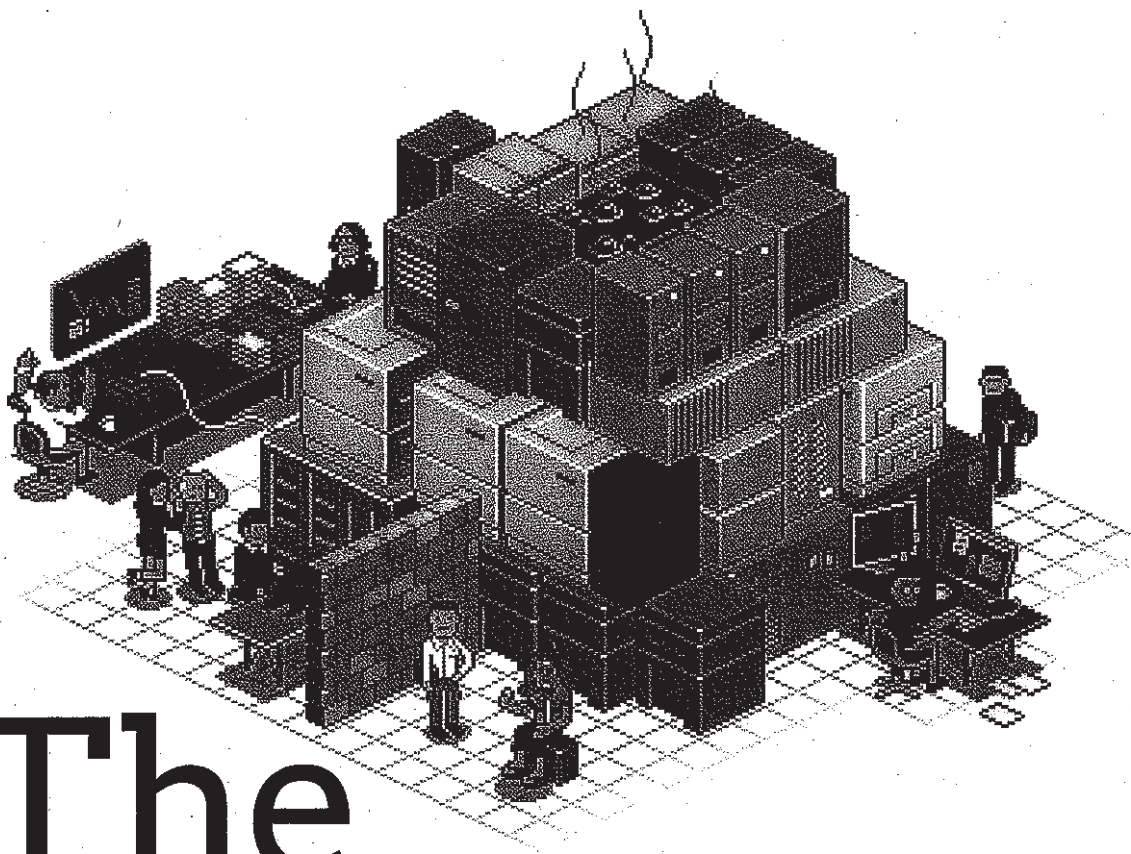
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From the authors of *The Visible Ops Handbook*



The Phoenix Project

A Novel About IT, DevOps,
and Helping Your Business Win

Gene Kim, Kevin Behr, and George Spafford