ITM 320 Systems Planning & Analysis  SYLLABUS  
Dr. Rob Anson, Spring 2016

### Course Syllabus

- **Instructor Contact**
- **Class Sections**
- **Required Textbook and Readings**
- **Learning Objectives**
- **Course Website**
- **Group Work**

<table>
<thead>
<tr>
<th>Instructor Contact</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dr. Rob Anson</strong></td>
<td><strong>Grading</strong></td>
</tr>
<tr>
<td>Office: MBEB 3251</td>
<td>Assignments and Submission Policies</td>
</tr>
<tr>
<td>Phone: 426-3029</td>
<td>Communication Standards</td>
</tr>
<tr>
<td>Email: <a href="mailto:ranson@boisestate.edu">ranson@boisestate.edu</a></td>
<td>Class Attendance</td>
</tr>
<tr>
<td>SKYPE: r.anson</td>
<td>Academic Misconduct</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Official Office Hours:</th>
<th>Tue 1:30 – 2:30 Thu 4:15-5:15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unofficial Office Hours:</td>
<td>Anytime! You are welcome to drop in my office—I am usually there. If you want to make sure I’m available, check my Gmail Calendar and post an invitation, or use email or call</td>
</tr>
</tbody>
</table>

**EMAIL:** When you email me, put ITM320 first in the subject line. Then please include your name in message and all prior messages in thread.

### Class Sections

- ITM320  
  Meets: Tue & Thu (001) 12:00 - 1:15  
  Room: MBEB 3016

### Required Textbook and Readings

- **Required Materials**  

- **Top Hat, Instructional Software.** Cost $20 for semester. You will receive an email to purchase.

- **Writing Guide**  
  COBE Writing Guide, Boise State University, 8/2015
  *You are responsible for downloading your own copy of the current COBE Writing Guide.*
  *It can be found at [http://cobe.boisestate.edu/students/writing-styles-guide/](http://cobe.boisestate.edu/students/writing-styles-guide/)

- **Other Readings**  
  *We will use other articles and videos as we go. All links are on Blackboard.*

### Learning Goals and Objectives

This course is intended to help you develop the core mindsets, skillsets, and toolsets of a Systems Analyst and Business Analyst.

The **mindsets** are those belonging to a Systems/Business Analyst and an IS Professional. A Systems/Business Analyst sees systems as a means to achieve organizational ends. The purpose of a system is to make people or processes more efficient and/or effective; the purpose is not the system itself. When systems are viewed as both Social and Technical in nature, we must view the Systems Analyst role similarly. The Analyst must have a broad and innovative skillset to visualize, describe, confirm, manage, and communicate systems and processes for both users and developers.

The **skillsets** are those involved in planning an IS development project, eliciting requirements from users, analyzing the requirements that a system needs to be able to accomplish in order to be able to design an effective system. All these specific IS skills are based on the ability to communicate well: listen accurately, interview effectively, write concisely.

The **toolsets** are for planning and managing IS development projects and building models to clarify...
requirements. We will focus on the object oriented approach based on the emerging Universal Modeling Language (UML) standard, and place emphasis on Agile Scrum approaches to work.

After completing this course, you should be able to demonstrate the following:

I. Systems Analysis and Design Generic Skillsets
   1. Be able to discuss the role and competencies of a Systems Analyst/Business Analyst.
   2. Be able to communicate analysis and design concepts, orally and in writing, to technical and non-technical people.
   3. Be able to write clear, readable, unambiguous technical documents.
   4. Be able to work effectively and responsibly in a team.
   5. Be able to review and give useful feedback to another on a planning or requirements document.

II. Planning and Project Management
   6. Be able to describe the activities and deliverables of each phase of the Systems Development Life Cycle.
   7. Be familiar with current major system development methodologies--Waterfall, Agile -- and be able to determine when each should be used.
   8. Be able to outline an iterative project schedule for developing an IS.
   9. Be familiar with project management approaches and best practices for estimating, prioritizing, scheduling, and tracking a systems development project.
  10. Be able to create a Vision and Scope document including discussions of the system business case, value, feasibility, scope, features, stakeholders, and risks.

III. Requirements Analysis
   11. Be able to plan an appropriate process for gathering requirements from users using a variety of techniques.
   12. Be able to model system requirements using use cases.
   13. Be able to model system requirements using standards-based, UML modeling techniques.
   14. Be able to write requirements statements that are clear, unambiguous, and testable.
   15. Be able to model a business process workflow.

IV. Design and Implementation
   16. Be able to identify and apply major user interface design principles.
   17. Be able to model data with ERD diagrams and a Data Dictionary.
   18. Be able to create and implement a test plan, and document results, for a prototype.
   19. Be able to identify critical design, implementation and quality assurance activities and issues.

In addition, students will learn or practice the following COBE Core Curriculum concepts, methods and skills:

- Communicate effectively: Write messages and documents that are clear, concise and compelling
- Communicate effectively: Give oral presentations that use effective content, organization, and delivery
- Solve problems, including unstructured problems, related to business and economics
- Use effective teamwork and collaboration skills
- Resolve ethical issues related to business and economics

Course Website

Blackboard at [https://blackboard.boisestate.edu/webapps/login/](https://blackboard.boisestate.edu/webapps/login/)

The official schedule is always in the WEEKLY FOLDER in Blackboard. It contains the assignments and articles, or links to those Blackboard sections where you can find them.

Assignments and readings will be posted at least 48 hours before the class they are due.

The instructor’s lecture slides should not substitute for taking your own notes. Instructor reserves the right not to post lecture slides.

Group Work

Team project work is required in this course, as it is with most IS work. Teams will be self-managing. You will periodically assess you and your team members’ contributions. Also, the instructor will review assessments to adjust individual team member grades. If you do not do your fair share, you will not receive full points for the team’s product and you may be “fired” by your team. A grade for team participation will be assigned at the end of the course based on the peer assessments.

Grading
**Grading Scale:** I follow approximately a 90 – 80 – 70 grading scale. However, I reserve the right to divide the major letter grades by using the natural gaps between grade clusters. I will not go beyond 2 percent points above or below the formal cut off percentages. If in doubt, your individual scores on exams and the final exam merit will push you up or down.

<table>
<thead>
<tr>
<th>% of Total Points</th>
<th>Grade</th>
<th>% of Total Points</th>
<th>Grade</th>
<th>% of Total Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 or higher</td>
<td>A +</td>
<td>93 – 97</td>
<td>A</td>
<td>90 – 92</td>
<td>A -</td>
</tr>
<tr>
<td>88 – 89</td>
<td>B +</td>
<td>83 – 87</td>
<td>B</td>
<td>80 – 82</td>
<td>B -</td>
</tr>
<tr>
<td>78 – 79</td>
<td>C +</td>
<td>73 – 77</td>
<td>C</td>
<td>70 – 72</td>
<td>C -</td>
</tr>
<tr>
<td>69 – 60</td>
<td>D</td>
<td>Below 60</td>
<td>F</td>
<td></td>
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There are few if any separate extra credit assignments. However, on any assignment or exam I regularly give some extra credit for insightful test answers, or project work that is above and beyond expectations.

These point totals and percentages will be subject to change during the semester. The final grade is calculated as a percentage of the total actual points in the course.

<table>
<thead>
<tr>
<th>Grading Items</th>
<th>Total Points</th>
<th>Percent</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework, Exercises, Quizes</td>
<td>100 (aprox)</td>
<td>14%</td>
<td>Homework and in-class exercises, small quizzes, etc. 5-25 points each. Usually individual, but some may be done in groups or teams.</td>
</tr>
<tr>
<td>Big Fat Project</td>
<td>300 (aprox)</td>
<td>42%</td>
<td>Includes team products and individual products; submitted in 3 or 4 “milestones”.</td>
</tr>
<tr>
<td>Individual Participation in Big Fat Project</td>
<td>50</td>
<td>7%</td>
<td>Your individual participation on your team as judged by peer evaluations and instructor evaluation of your individual participation and contribution.</td>
</tr>
<tr>
<td>Exams</td>
<td>150</td>
<td>21%</td>
<td>Probably 2 exams during the semester. Mostly short answer and essay questions that emphasize application of concepts to real world problems. These are taken outside of class in Online Testing Center</td>
</tr>
<tr>
<td>Final Exam</td>
<td>120</td>
<td>17%</td>
<td>You must receive a 60% or better score on the final exam to pass the course. Exam is comprehensive.</td>
</tr>
<tr>
<td>Total Points</td>
<td>720</td>
<td>100%</td>
<td></td>
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</table>
Assignments and Late Submission Policies

General Submission Policies

- For any work done in-class (a quiz or an in-class exercise) has NO makeup or late submission.
- For any homework that is brought into class completed, then graded in class, then there is NO late submission. However, you may email to me before the start of class for full credit.
- If you are Late, just 1-2 days late, you will lose 10% - 20% of the points. After that the points drop rapidly.

Homework

**Concept:** Homework is intended to help you practice certain techniques or concepts and receive feedback. I attach from 5-25 points to each to encourage you to do the practice. Most of their value, however, is in improving your understanding or skill in order to perform better on exams or projects (the big money).

**Logistics:** These are assigned to do outside of class. Unless it is explicitly stated, they can be handwritten or typed as long as I can read them. I am looking to see if you “get” the idea, model or skill.

**Late Policy:** I will state it on the assignment itself. When we will review it in class, then no late homework is allowed. When it is allowed, you have a maximum of one week to turn it in to me.

*If You Will Miss Class:* You must get it to me BEFORE class starts--via email, or dropping it off.

Quizzes

**Concept:** Quizzes are intended to check your reading and understanding of the more conceptual material. These are worth 5 to 10 points each.

**Logistics:** Quizzes will be announced on Blackboard by noon the day before class. These are usually quick 4-5 minute writing on a question, or multiple choice, at the very start of class.

**Late Policy:** You must be in class to take the quiz. Usually they are at the very start of class.

In-Class Exercises

**Concept:** We will frequently do in-class exercises in groups or individually. This is a chance to practice and learn. These are worth 5 to 10 points each.

**Logistics:** In-class exercises may or may not be announced on Blackboard. And when I ask you to turn in what you came up with, I may or may not decide to grade it.

**Late Policy:** No Late Submissions allowed, if you miss it, you miss it.

Big Fat Project (BFP)

**Concept:** The BFP helps you link concepts and apply techniques across a whole IS development project.

**Logistics:** This will be broken up and submitted in parts across multiple sprints.

**Late Policy:** If late and submitted within 48 hours I will subtract 10% of possible points. After that, it loses 50%.
Exams

Concept: Exams assess how well you individually grasp the core concepts and skills from each module of the course. Usually exam questions ask you to explain and apply major concepts and techniques in the context of a scenario. They will focus on making sure you get the basic idea and can explain or do it.

Logistics: There are 2 exams taken outside of class.

Late Policy: Make ups will only be allowed because of a documented conflict, BUT YOU MUST TELL ME IN EMAIL AT LEAST 7 DAYS BEFORE. Please try to schedule your travel around the exam date.

Final Exam

Concept: The final is required and comprehensive. The good part is that I give you the actual questions a week in advance. At the exam, I give you a scenario to apply the questions to when answering. It is intended as an opportunity to put it all together, one last time. It also serves a quality control function: everyone takes it, and if they don’t pass it, they take the class over again.

Logistics: The final exam period is on the Weekly Schedule. If you have a conflict, or have more than 2 total exams on that day, talk to me well in advance. We can work out a better time.

Late Policy: The final is required. If you can not take it during the time it is offered, see me well in advance to set up another time.

Communication Standards

Standards for All Written Deliverables

Writing is an integral part of all of our disciplines, and especially ours. Developing an effective style of writing to convey your thoughts and ideas is one of the most important skills you should attain in college.

I grade your written submissions according to professional technical writing standards. Projects and large point assignments should be done on the computer (unless specifically noted), and grading will consider grammar, formatting, spelling and reference citation in addition to content. Look at any document I give you in class. You will see section headings and bullets used; you will see paragraphs that make sense as a whole unit and begin with a topic sentence. Pay attention to your writing!

The COBE Writing Guide (known as the “GUIDE”) will be the writing standard we use in this class. The GUIDE was developed by your College of Business and Economics faculty to communicate our expectations for your written work. It lays out a set of basic writing standards that will be used across all courses in the College. These standards are subset of rules about good writing taught in English and Communications courses emphasizing professional communications in the workplace.

In our class, about 15% of your grade on writing assignments will be based on meeting the standards in the GUIDE plus any specific amendments that I add for our class.

AFTERTHOUGHT Interestingly, a higher ed research group (NSSE) found the average student spends 10 or less hours on homework per week, TOTAL. That is a pretty dramatic gap between what instructors expect and what students put in. It is no wonder some people do not receive the grades they believe they should be given!

Class Attendance

Attendance is expected at every class session. While I do not take role, I do know who is attending and who is not. Understand that there is no makeup for any in-class points because we usually discuss the
answers after doing it. Any class period is an opportunity for the instructor to assign in-class points, whether it is stated in the schedule or not.

If an assignment is due for a class that you will not be able to make it to, you may email it to me so that I receive it before the class. This will count as one of your 2 late assignments, but I will not take off points.

If you miss a class, check Blackboard! You are responsible for obtaining your own notes, lecture slides, assignment information, online discussions, etc. from the course web and/or other students.

### Academic Misconduct

Academic misconduct includes actions such as “cheating, plagiarism, fabrication, unauthorized multiple assignment submissions, misrepresentation of academic records, and unauthorized collaboration.” (Code of Conduct Section 7) I will enforce university regulations regarding the student code of conduct to their fullest. These regulations are described in Student Conduct Program, Code of Conduct, Section 7

### Your Own Work

I expect you to help one another outside of class. You are not competing. But, when I ask you to do an individual assignment, I expect that the product you turn in will be uniquely your own. I want to hear your thoughts and ideas, and I want to hear what you have learned from others (correctly cited!) In fairness to other students, and to you, I will deal very harshly with plagiarism, copying other’s work, and any other such acts that are counter to responsible individual learning.
Master Schedule: ITM310-001 Anson Spring 2016

Week 1 (1/12, 1/14)
1. The World of Analysis
TUE: Overview course, CourseMap, Analyst jobs and roles, and CHAOS    DUE: Your Presence
THU: The Systems Development Lifecycle and Methodologies    DUE: Quiz; Reading

Week 2 (1/19, 1/21)   >>Details Under Construction<<
1. The World of Analysis
TUE: Understanding Requirements Management and Models    DUE: Quiz, Reading
THU: (Continue) Requirements Mngt, Models, and the Roles    DUE: Homework, Reading

Week 3 (1/26, 1/28)   >>Details Under Construction<<
1. The World of Analysis
TUE: Project Planning—Schedule, Estimation, Feasibility Analysis
THU: NO CLASS

Week 4 (2/2, 2/4)   >>Details Under Construction<<
2. Planning Phase
TUE: Working in Teams; A Team Charter    DUE: Homework, Reading; In-Class Exercise
THU: Part 1: The Vision Scope Document (VSD)    DUE: Reading, HW VSD Part 1

Week 5 (2/9, 2/11)   >>Details Under Construction<<
2. Planning Phase
TUE: Part 2: The Vision Scope Document (VSD)    DUE: Reading, HW VSD Part 2
THU: Part 3: The Vision Scope Document (VSD)    DUE: Reading, HW VSD Part 3

Week 6 (2/16, 2/18)   >>Details Under Construction<<
2. Planning Phase
TUE: BFP-- Teams work in class on the Vision Scope Document
EXAM 1 Online Testing Center: Wed (2/16), Thu (2/17), or Fri (2/18) You may have up to 1 hr 45 min for exam.  Please Schedule an Appointment to take exam

III. Requirements Engineering
THU: Intro to Requirements Engineering--Process, Types, Models (not on Exam 1)    DUE: Reading

Week 7 (2/23, 2/25)   >>Details Under Construction<<
III. Requirements Engineering
TUE: Modeling Requirements using Stories    DUE: Reading, Quiz
THU: Modeling requirements using Activity Diagram    DUE: Reading, HW-Stories

Week 8 (3/1, 3/3)   >>Details Under Construction<<
III. Requirements Engineering
TUE: Use Case Diagramming (UCD)    DUE: Reading, Quiz, HW-Activity Diagram
THU: Use Case Specification (UCS)    DUE: Reading, HW-UCD exercise

Week 9 (3/8, 3/10)   >>Details Under Construction<<
3. Requirements Engineering
TUE: Use Case Specification (UCS)    DUE: Reading, HW-UCS exercise
THU: Requirements Elicitation Techniques + Exam 2 Review    DUE: Reading, HW-UCD+UCS exercise

Week 10 (3/15, 3/17)   >>Details Under Construction<<
3. Requirements Engineering
EXAM 2  Online Testing Center: Mon (3/14), Tue (3/15), or Wed (3/16) You may have up to 1 hr 45min. Please Schedule an Appointment to take exam  Covers: Requirement Types, Models Bus Process Modeling, Stories, UCD, UCS

TUE:  BFP--Class Time for working in teams.  DUE:  Bring initial ideas for BFP Milestone #3
THU:  BFP--Class Time for working in teams.  DUE:  Bring initial ideas for BFP Milestone #3

Spring Break Vacation (3/22, 3/24)

Week 11 (3/29, 3/31)
4. Design Phase
TUE:  Moving on to Design, Part 1  DUE:  Reading
THU:  Moving on to Design, Part 2  DUE:  BFP Milestone #2

Week 12 (4/5, 4/7)
4. Design Phase
TUE:  User Interface Design  DUE:  Reading
THU:  Start BFP Milestone #3—Team  Class Time for working in teams

Week 13 (4/12, 4/14)
TUE:  Guest Speaker: Karl Wiegers
THU:  BFP--Class Time for working in teams

Week 14 (4/19, 4/21)
5. Implementation Phase
TUE:  Quality Assurance, Reviews, Testing, and Installation Topics  DUE:  Reading
THU:  Agile Scrum Best Practices  DUE:

Week 15 (4/26, 4/28)
TUE:  BFP-Team Presentations
THU:  BFP-Team Presentations  DUE:  BFP-4 Prototype  Turn in at start of class in 3 ring binder and email prototype to me; also bring prototype in on thumb drive for presentation

FINAL PEER ASSESSMENT:  After the class presentations on Thursday, you will receive an email to complete the final peer assessment by Saturday the 30th midnight.  Failure to complete this will result in loss of 10 participation points.  Participation points are based upon your peer assessments from the entire semester.

EXTRA CREDIT:  Take the Online Course Evaluation by Sunday 5/1.  If 90% of the class completes it, everyone will receive 5 extra credit points!

Finals Week
The Final Exam will be Wednesday, December 16th, from 2:30 - 4:30 in our regular classroom MBEB 3016.  It is worth 120 points.  The exam is comprehensive, but I am giving you the questions right here-- see ITM320 Fa15 Final Exam Questions.docx  When you arrive at the exam, we will randomly select which specific questions you will need to answer--you will need to answer 2 of the 5 questions in Part 1, and 2 of the 3 models in Part 2.