MIS 3504
Digital Design and Innovation Studio

1: INTRODUCTION

Stephen Salvia

WELCOME BACK
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Office Hours:
Monday / Wednesday evenings 6:00 PM – 7:30 PM
by phone 267.242.5439
Tuesday evening 8:00 PM  9:00 PM - after class
course overview
This course is required
This course is demanding
There is a lot of work
Grading will be tough
Assume about 10% A’s
This course is DIFFERENT
This course is a STUDIO
course objectives
Primary Course Objectives

• Prepare you for the role of a modern Business Analyst
• Make you a thought leader
• Combine the strengths of Business Process Analysis with Design Inquiry to create Innovative Solutions

BA + Design Inquiry = Innovative Solutions
Course Objectives: BA

- **Analyze** a business process and specify requirements for improving that process.
- **Apply** information gathering techniques to elicit requirements which will be used to compose business and technical requirements.
- **Recommend** information systems solutions to improve or transform business processes.
- **Make** “as is” vs “to be” analyses, justify proposed process information systems solutions.
- **Implement** and negotiate changes to requirements.
- **Encourage** independent and CRITICAL THINKING.
Course Objectives: DESIGN

• **Understand** the shift from Quantitative to Qualitative thought
• **Learn** methods of User Centered / Ethnographic research
• **Learn** collaborative working methods
• **Learn** iterative working methods / experimentation
• **Think** and communicate visually
• **Provide** effective evaluation and CONSTRUCTIVE CRITICISM
Course Blog

http://community.mis.temple.edu/mis3504spring2016003
Text Books


## Grading

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>20%</td>
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<tr>
<td>Exam 2</td>
<td>20%</td>
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<tr>
<td>Exam 3</td>
<td>20%</td>
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<tr>
<td>Individual case assignments and class participation</td>
<td>20%</td>
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<tr>
<td>Team Project</td>
<td>20%</td>
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</tbody>
</table>
Exams (20% each)

• 3 exams
  – 55 minutes long
  – Multiple choice
  – Half covers all readings and class discussions
  – Half requires you to apply techniques
  – Graded 0-100%
  – Combined exams = 60% final grade
Individual Work (20%)

• Project Scope
• Process Flow and Design
• Data Diagram
• Business Rules
• JustinMind assignment
• Class Participation
Team Project (20%)

• Analysis of existing situation and proposal of a solution
• Produce a working prototype using Justinmind
• Accompanying documentation
• Team presentation
• Exercises and Assignments will help build your final submission
• Completeness and consistency are critical
• Personal project grades based on your performance, participation and peer evaluations
Assignments

• All assignments are based on the project case and contribute towards its completion

• Listed in the syllabus by week due. Due on date indicated.

• Due at the beginning of class on paper. Bring your work electronically also!

• Several students each week will be randomly selected to present their work for review
Classes

• Bring your assignments
  – Due at the START of class
  – Paper and ELECTRONIC formats
  – Random people will present their work
• Come prepared to discuss and participate
  – Classes will discuss and elaborate on readings, not review them
• Class contributions
  – Say your name before you share
  – You will be called upon to share your work
  – You will be asked questions
  – Lack of preparation will affect your grade
• Classroom Etiquette
  – BE PRESENT
  – Be on time
  – Cell phones off
  – Private discussions outside
  – Bring your computer but use it for class
We may have to make adjustments
<table>
<thead>
<tr>
<th>Class</th>
<th>Topics</th>
<th>Individual Assignments</th>
<th>Team Assignments</th>
<th>Individual Deliverables due</th>
<th>Team Deliverables due</th>
<th>Reading assignment</th>
<th>Addition Material</th>
<th>Exams</th>
</tr>
</thead>
</table>
| 1     | Introductions  
 BA Role  
 Project Client / Sponsor  
 Introduction of JustinMind | Team Assignments  
 Team Member  
 Introductions  
 Turn in Team roster |    |    | Seven Steps Chp 1 |    |    |    |    |
| 2     | Requirements  
 Stakeholders | In class team work assignment: |    |    | Requirements and  
 Stakeholder exercise | Seven Steps Chp 2  
 Jogger 1 - 28 Requirement overview  
 Jogger 62 - 63 - Stakeholder Profiles | Warehouse  
 Case_StakeHolder  
 Stakeholder Template |    |
| 3     | Project Scope  
 Case - Due class 4 | Team Studio work:  
 Brainstorm on Project topics |    |    | Initial Project Topic and  
 problem statement | Seven Steps Chp 3  
 Jogger 28 - 42 - Vision Statement |    |    |
| 4     | Elicit Requirements  
 Interviews | Team Studio work:  
 Meetings to discuss  
 Project Topic |    |    | Turn in Individual  
 Warehouse scope  
 Finalized Project Topic  
 and problem statement | Seven Steps Chp 4  
 Jogger 43 - 49 - Elicit Requirements |    |    |
| 5     | Process Flow  
 Swim lane  
 Flowchart | Assign Sales Order Case, develop  
 process flow and design  
 Due class 6 | Team Studio work:  
 Develop interview questions and  
 stakeholder identification for Project Scope  
 Lab1 |    | Turn in JustinMind  
 Prototype Introduction  
 Scope (Draft) | Seven Steps Chp 6 -  
 pages 232 - 235  
 Jogger122 - 126 | Sales Order Case  
 Swim lane template | Exam 1  
 Chapter 1, 2, 3  
 and 4 |
| 6     | Understanding Client Data  
 Entities/Elements  
 Introduce Project Case,  
 Interviews | Assign Night Owl Case, develop  
 Data and views  
 Due class 7 | Team studio work:  
 Mock interviews  
 Scope refinements if required | Turn in Individual  
 Process Flow and Design | Turn in team project  
 Scope | Seven Steps Chp 6 -  
 pages 235 - 237  
 Jogger 183 - 189 |    | Night Owl Case |
| 7     | Developing Business Rules  
 Case | Assign Gas Woks Case, develop  
 business rules and design  
 Due class 8 | Team studio work:  
 Mock interviews  
 Current State analysis | Turn in Individual  
 Solutions Plus - Data Analysis Case |    | Jogger 204 - 215 |    |    |
<p>| No Class | Spring Break |    |    |    |    |    |    |    |</p>
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<thead>
<tr>
<th>Class</th>
<th>Topics</th>
<th>Individual Assignments</th>
<th>Team Assignments</th>
<th>Individual Deliverables due</th>
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<th>Reading assignment</th>
<th>Addition Material</th>
<th>Exams</th>
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<tr>
<td>8</td>
<td>Design Thinking</td>
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<td>Team studio work: Mock interviews</td>
<td>Turn in Individual - Business rules Case</td>
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<td>Seven Steps Chp 7</td>
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<td>3/8/2016</td>
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<td>Future State Design</td>
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<td>9</td>
<td>Create persona, user stories</td>
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<td>Team studio work: Mock interviews</td>
<td>Turn in JustinMind</td>
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<td>Chp 6 Jogger 77 - 81</td>
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<td>3/15/2016</td>
<td>Creating scenario</td>
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<td>Future State Design</td>
<td>Prototype Introduction</td>
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<td>Project Case Interviews</td>
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<td>Lab 2</td>
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<td>10</td>
<td>Review Process</td>
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<td>Team studio work: Prototype Design</td>
<td>Draft views of project</td>
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<td>Exam 2 Chapter 4, 6 and 7</td>
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<td>3/22/2016</td>
<td>Document Business rule - Project</td>
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<td>personal(s) and Scenario(s)</td>
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<td>11</td>
<td>Selling your ideas</td>
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<td>Team studio work: Prototype Design</td>
<td>Future State Draft views</td>
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<td>3/29/2016</td>
<td>Cross team review of scenario</td>
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<td>of Data and Process flows</td>
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<td>Cross team prototype review</td>
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<td>12</td>
<td>Group Work</td>
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<td>Peer level reviews Develop Presentation</td>
<td>Draft views of Prototype and Presentation</td>
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<td>4/5/2016</td>
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<td>13</td>
<td>Team Presentations</td>
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<td>Class Presentations</td>
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<td>14</td>
<td>Team Presentations</td>
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<td>Class Presentations (overflow) Final Project Materials due</td>
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<td>4/19/2016</td>
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<td>4/26/2016</td>
<td>Study Day</td>
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<td>Finals Week</td>
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<td>Exam 3 - Prototyping</td>
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<td>5/3/2016</td>
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Extra Credit

- Opportunities to earn extra credit points during the semester.
- Students may choose to develop a prototype, in Justinmind, for up to two of the following class cases:
  - Warehouse Case – Stakeholder/Requirements
  - Modern Electronics / Distribution Warehouse Case – Project Scope
  - Discount Auto Parts – Sales Order Case – Process Flow
  - Solutions-Plus Client Project Data Analysis
  - Mortgage Program Case – Business Rules
  - Night Owl Case – ERD
  - We Sell All Cars – Decision Tree Case
  - Public Gas Works Case

- Students who submit prototypes that are **complete AND well done** may earn up to 1 point on their FINAL grade for each submitted prototype. A Maximum of two prototypes may be submitted for extra credit.
How do I get an A?

1. Read the material before class
2. Come prepared to ask questions/discuss
3. Put effort into doing your assignments and team critiques
4. Take in-class exercises seriously
5. Study hard for the tests
6. Produce a great project solution and prototype
7. Impress me with the quality of your work
8. TIMELINESS and ATTENDANCE
Break 15 minutes
What is Business Analysis?

Who is the modern Business Analyst?
What is Business Analysis?

“The set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies, and operations of an organization and recommend solutions that enable the organization to achieve its goals”

- The International Institute of Business Analysis (IIBA)
Business Analysis Involves...

- **Identification** of business problems and opportunities
- **Elicitation** of needs and constraints from stakeholders
- **Analysis** of stakeholder needs to define requirements for a solution
- **Assessment** and validation of potential and actual solutions
- **Management** of the “product” or requirements scope
“BAs with an IT background are very analytical individuals . . .”

- B. Carkenord from Seven Steps to Mastering Business Analysis, p 8.

“As a DESIGNER, I am much better at synthesis than analysis . . .”

- Bill Moggridge from Designing Interactions, p 725.
**analysis**: the separating of any material or abstract entity into its constituent elements (opposed to synthesis)

**synthesis**: the combining of the constituent elements of separate material or abstract entities into a single or unified entity (opposed to analysis)

analysis: PULLS IT APART

synthesis: PUTS IT TOGETHER
Business analysis and Design provide a balanced approach
What are the traits of the most successful business analysts?

- Analysts enjoy learning things and have a rare combination of the ability to see both the big picture while also being very detail oriented.

- Excellent “people skills” – strong listening skills. Good at asking questions and probing for missing information. Good leadership skills.

- Strong technical awareness – Understands all facets of software development.

- Constantly working on improving their skill set.

- Creativity
Why would anyone want to be a BA?

• You like technology, but not so much that you want to do it all the time.
• You like solving problems
• You like working with people and understanding their needs and concerns
• You get bored easily doing the same thing over and over
• Inefficiency and lack of effectiveness annoy you

And…
# Business Analyst Career Path

<table>
<thead>
<tr>
<th>Title</th>
<th>Experience</th>
<th>Tasks</th>
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<tbody>
<tr>
<td>Junior Business Analyst</td>
<td>0-2 years; may have business experience or IT development experience</td>
<td>Elicit and document requirements for small, well-defined projects, often changes to existing systems. Ideally works with a BA mentor.</td>
</tr>
<tr>
<td>Business Analyst</td>
<td>2-5 years</td>
<td>Elicit, analyze, and document requirements for medium to large projects. Works with the project manager to scope new projects.</td>
</tr>
<tr>
<td>Lead or Senior Business Analyst</td>
<td>5-10 years</td>
<td>Elicit, analyze, and document requirements for large, complex, mission-critical projects. Supervises/mentors junior Bas. Works with the business to initiate and define new projects.</td>
</tr>
<tr>
<td>Business Consultant/Client Relationship Manager</td>
<td>10+ years</td>
<td>Assist the business with strategic planning, business case development, and new product implementations. Helps to identify projects. Sets up and manages a business analyst center of excellence.</td>
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</table>

Average salaries from Indeed.com

- $55,000-60,000+
- $77,000+ (Business Analyst)
- $89,000+ (Lead or Senior Business Analyst)
• Where do business analysts come from, IT or a business unit?

• Which is better?

• Who do business analysts work for, IT or a business unit?
Summary: Basic Model

Events Trigger

• Opportunities
• Problems

Steps

1 Analysis of the event – Ask the right questions
2 Design a solution – What are the possibilities
3 Implementation - Build/implement the solution
Framework: Tools

**Tool:** a device or implement, used to carry out a particular function
implement, utensil, instrument, device, apparatus, gadget, appliance, machine, contrivance, contraption, gizmo

**Framework:** the ideas, information, and principles that form the structure of an organization or plan

**Framework and tools for your innovation project:**

- **Scope the work**
  - What is the game plan

- **Analysis / Document the current state**
  - Understand the Business Requirement and how the work gets done (functional)
  - Tools: Process flow, Data Views Business Rule, Decision trees

- **Design a solution to resolve issue or address opportunity**
  - Team collaboration
  - Tools – personas, scenarios, evaluation, prototypes

- **Document Future state with new design**
  - How does the solution change the way work gets done (functional)
  - Are the Business requirement still being met

- **Sell solution to sponsor**
  - Presentation
  - Demonstration
team formation

1. select a team liaison
2. exchange contact information
3. Liaison emails to me slsnite@temple.edu
Team Name
Team Number
List of members
Introductions
Who am I?
The Two Minute Presentation

• Short and concise summary
• Two minutes is just right
• Situational
  – Biographical background for recruiters
  – Personal & project background when meeting subject matter experts
  – Project summary for leadership (elevator speech)
• Write it out if you want
Who are YOU?
2 Minute Presentation Exercise

• Sit with your team
• Take 5 minutes to prepare your 2 minute biography
• Cover key points (situational)
  – Where are you from?
  – Any background information you might want to include
  – What brought you to Temple?
  – What made you want to major or minor in MIS?
  – What are you looking to do when you graduate?
  – What are your other strengths and interests?
• Each team member presents their 2 minute biographies
Congratulations!
You are now a team.
What do you want to learn from the interview with a project sponsor?
Questions should be:
- Broad to start
- Appropriate for the person being interviewed
- Start general then more specific
- Open-ended
As a team:

Prepared questions (in writing) in priority order
JustInMind

1. Download trial program from website [http://www.justinmind.com/]
   Prototyper Pro Edition 6.9
2. Access your license key
3. Unlock the full version of the program
4. Learn how to use it
END