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 work

Individual Assignments
Group Assignments
Team Project
Exams
Assignments will be Challenging
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/mis3504fall2016003/
Text Books


<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>
<tbody>
<tr>
<td>1</td>
<td>8/30/2016</td>
<td>Introductions BA Role Project Client / Sponsor Introduction of JustinMind</td>
<td>Team Assignments Team Member introductions Turn in Team roster</td>
<td></td>
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<td>Seven Steps Chpt 1</td>
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<tr>
<td>2</td>
<td>9/6/2016</td>
<td>Requirements Stakeholders</td>
<td>In class team work assignment:</td>
<td>Requirements and Stakeholder exercise</td>
<td></td>
<td>Seven Steps Chpt 2</td>
<td>Adder 62 - 63 - Stakeholder Profiles</td>
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<tr>
<td>3</td>
<td>9/13/2016</td>
<td>Project Scope</td>
<td>Develop Scope from Warehouse case - Due class 4</td>
<td>Team Studio work: Brainstorm on Project topics</td>
<td>Initial Project Topic and problem statement</td>
<td>Seven Steps Chpt 3</td>
<td>Modern Electronics / Distribution Warehouse Case – Project Scope</td>
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<tr>
<td>4</td>
<td>9/20/2016</td>
<td>Elicit Requirements Interviews</td>
<td>Team Studio work: Meetings to discuss Project Topic</td>
<td>Turn in individual Warehouse scope</td>
<td>Finalized Project Topic and problem statement</td>
<td>Seven Steps Chpt 4</td>
<td>Adder 43 - 49 - Elicit Requirements</td>
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<td>5</td>
<td>9/27/2016</td>
<td>Process Flow Swim lane Flowchart</td>
<td>Assign Sales Order Case, develop process flow and design Due class 6</td>
<td>Team Studio work: Develop interview questions and stakeholder indentification for Project Scope</td>
<td>Turn in JustinMind Prototype Introduction Lab1</td>
<td>Seven Steps Chpt6 - pages 232 - 235</td>
<td>Discount Auto Parts – Sales Order Case – Process Flow</td>
<td>Swim lane template</td>
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<tr>
<td>6</td>
<td>10/4/2016</td>
<td>Understanding Client Data Entities/Elements Introduce Project Case, Interviews</td>
<td>Assign Data Analysis, develop Data and views Due class 7</td>
<td>Team studio work: Mock interviews Scope refinements if required</td>
<td>Turn in individual Process Flow and Design</td>
<td>Seven Steps Chpt6 - pages 235 - 237</td>
<td>Solutions-Plus Client Project Data Analysis</td>
<td>ERD Spreadsheet</td>
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<tr>
<td>7</td>
<td>10/11/2016</td>
<td>Developing Business Rules</td>
<td>Assign Decision Tree Case, develop business rules and design Due class 8</td>
<td>Team studio work: Mock interviews Current State analysis</td>
<td>Turn in Individual Solutions Plus - Data Analysis Case</td>
<td>Turn in revised team project Scope</td>
<td>We Sell All Cars – Decision Tree Case</td>
<td>Business Rules Template</td>
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<td>Understanding Client Data Entities/Elements</td>
<td>Assign Data Analysis, develop Data and views Due class 7</td>
<td>Team studio work: Mock interviews Scope refinements if required</td>
<td>Turn in individual Process Flow and Design</td>
<td>Class review and revised (Draft) scope</td>
<td>Seven Steps Chp6 pages 235 - 237</td>
<td>Jogger 183 - 189 Solutions - Plus Client Project Data Analysis ERD Spreadsheet</td>
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<tr>
<td>7</td>
<td>Developing Business Rules</td>
<td>Assign Decision Tree Case, develop business rules and design Due class 8</td>
<td>Team studio work: Mock interviews Current State analysis</td>
<td>Turn in Individual Solutions Plus - Data Analysis Case</td>
<td>Turn in revised team project Scope</td>
<td>Jogger 204 - 215</td>
<td>We Sell All Cars – Decision Tree Case Business Rules Template</td>
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<td>8</td>
<td>Design Thinking</td>
<td>Team studio work: Mock interviews Future State Design</td>
<td>Turn in Individual Business rules Case</td>
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<td></td>
<td>Seven Steps Chp 7</td>
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<tr>
<td>9</td>
<td>Create persona, user stories Creating scenario Project Case Interviews</td>
<td>Team studio work: Mock interviews Future State Design</td>
<td>Turn in JustinMind Prototype Introduction Lab 2</td>
<td>Current State Draft views of Data, Business rules and Process flows</td>
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<td>Chap 6 Jogger 77 - 81</td>
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<tr>
<td>10</td>
<td>Review Process Document Business rule - Project focus</td>
<td>Team studio work: Prototype Design</td>
<td>Draft views of project personal(s) and Scenario(s)</td>
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<td>Exam 2 Chapter 4, 6 and 7</td>
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<tr>
<td>11</td>
<td>Selling your ideas Cross team review of scenario Cross team prototype review</td>
<td>Team studio work: Prototype Design</td>
<td>Future State Draft views of Data and Process flows</td>
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<tr>
<td>12</td>
<td>Group Work</td>
<td>Peer level reviews Develop Presentation</td>
<td>Draft views of Prototype and Presentation</td>
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<td>11/22</td>
<td>Thanksgiving Break</td>
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<tr>
<td>13</td>
<td>Team Presentations</td>
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<tr>
<td>14</td>
<td>Team Presentations</td>
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<td></td>
<td>Class Presentations (overflow) Final Project Materials due</td>
<td></td>
<td>Exam 3 - Prototyping</td>
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<tr>
<td>12/6</td>
<td>Team Presentations</td>
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<td></td>
<td>Class Presentations</td>
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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 **10 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.
**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>
<th>Average Salaries from Indeed.com</th>
</tr>
</thead>
<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>
<td>$55-60,000</td>
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<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>
<td>$77,000+</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>
<td>$89,000+</td>
</tr>
<tr>
<td>Business Consultant/Client</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>
<td>Average salaries from Indeed.com</td>
</tr>
</tbody>
</table>
• 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
Requirements:

Core Business Requirements vs Functional Requirements:

- **What** tasks need to be performed to operate
  - Core Business Requirements
  - Analysis

- **How** will the task be completed
  - Functional Requirements
  - Design
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 7.4
2. Access your license key
3. Unlock the full version of the program
4. Learn how to use it
END