



MIS 3504

# Digital Design and Innovation Studio

1: INTRODUCTION

Stephen Salvia

Photo: Installation by Jenny Holzer, US Pavillion, Venice Biennale 1990

**WELCOME BACK**

# Stephen Salvia

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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

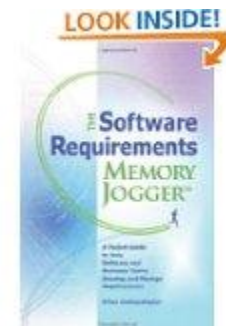
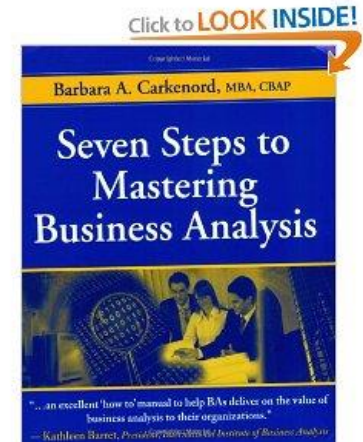
# Course Blog

<http://community.mis.temple.edu/mis3504spring2016003>



# Text Books

- Carkenord, Barbara A., **Seven Steps to Mastering Business Analysis**, J. Ross Publishing, 2009, ISBN 978-1-60427-007-5.
- Ellen Gottesdiener, The Software Requirements Memory Jogger, 2005, ISBN1-57681-060-7



# Grading

Item	Percentage
Exam 1	20%
Exam 2	20%
Exam 3	20%
Individual case assignments and class participation	20%
Team Project	20%

# 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

# Schedule

## MIS3504 Spring 2016 Class Schedule and Deliverables

Class	Topics	Individual Assignments	Team Assignments	Individual Deliverables due	Team Deliverables due	Reading assignment	Addition Material	Exams
1 1/12/2016	Introductions BA Role Project Client / Sponsor Introduction of JustinMind		Team Assignments Team Member Introductions Turn in Team roster			Seven Steps Chpt 1		
2 1/19/2016	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 1/26/2016	Project Scope	Develop Scope from Warehouse 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	Dysfunctional Warehouse Case	
4 2/2/2016	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 2/9/2016	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	Turn in JustinMind Prototype Introduction Lab1	Turn in team project Scope (Draft)	Seven Steps Chp6 - pages 232 - 235 Jogger122 - 126	Sales Order Case Swim lane template	Exam 1 Chapter 1, 2, 3 and 4
6 2/16/2016	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 Chp6 pages 235 - 237 Jogger 183 - 189	Night Owl Case	
7 2/23/2016	Developing Business Rules	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		
No Class 3/1/2016	Spring Break							

# Schedule

## MIS3504 Spring 2016 Class Schedule and Deliverables

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8 3/8/2016	Design Thinking		Team studio work: Mock interviews Future State Design	Turn in Individual - Business rules Case		Seven Steps Chp 7		
9 3/15/2016	Create persona, user stories Creating scenario Project Case Interviews		Team studio work: Mock interviews Future State Design	Turn in JustinMind Prototype Introduction Lab 2	Current State Draft views of Data, Business rules and Process flows	Chp 6 Logger 77 - 81		
10 3/22/2016	Review Process Document Business rule - Project focus		Team studio work: Protype Design		Draft views of project persona(s) and Scenario(s)			Exam 2 Chapter 4, 6 and 7
11 3/29/2016	Selling your ides Cross team review of scenario Cross team prototype review		Team studio work: Protype Design		Future State Draft views of Data and Process flows			
12 4/5/2016	Group Work		Peer level reviews Develop Presentation		Draft views of Prototype and Presentation			
13 4/12/2016	Team Presentations				Class Presentations			
14 4/19/2016	Team Presentations				Class Presentations (overflow) Final Project Materials due			
No Class 4/26/2016	Study Day							
Finals Week 5/3/2016	Exam 3							Exam 3 - Prototyping

# 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)

- From <http://dictionary.reference.com/>

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

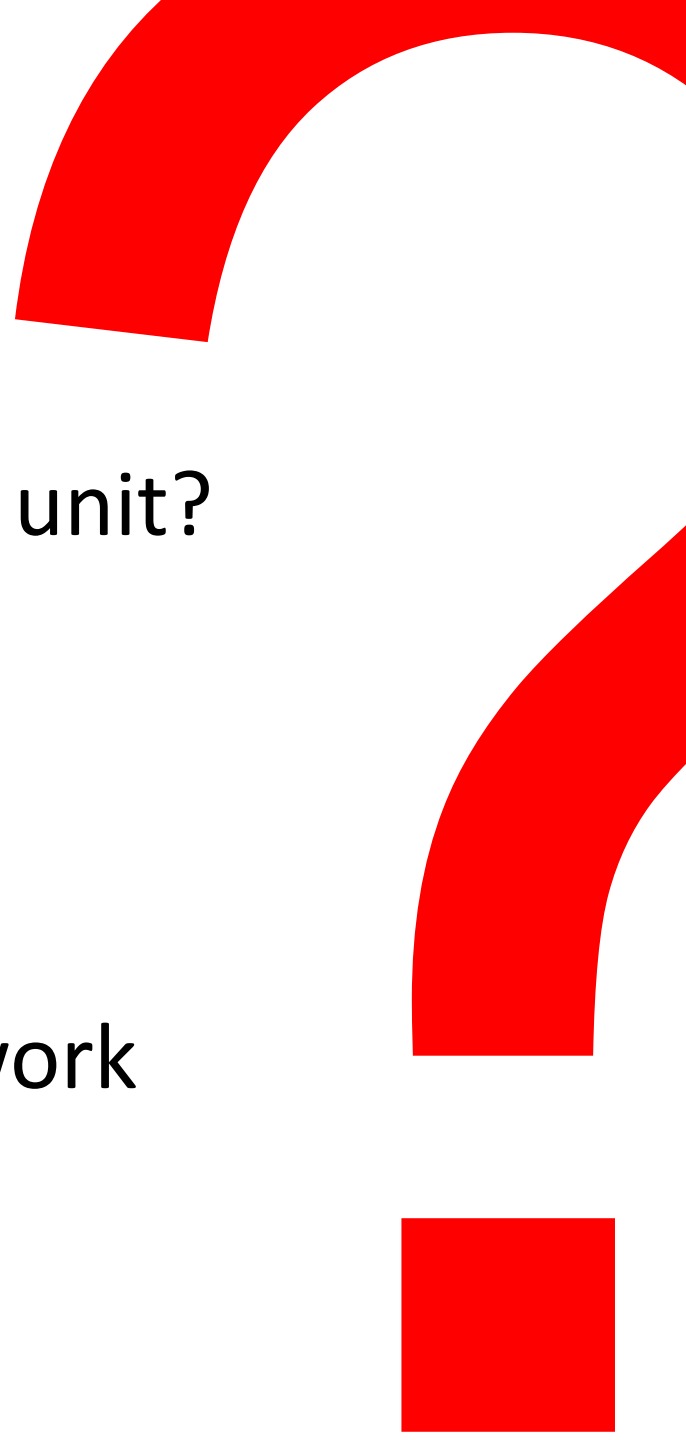
And...

# Business Analyst Career Path

Title	Experience	Tasks
Junior Business Analyst	0-2 years; may have business experience or IT development experience	Elicit and document requirements for small, well-defined projects, often changes to existing systems. Ideally works with a BA mentor <b>\$55-60,000</b>
Business Analyst	2-5 years	Elicit, analyze, and document requirements for medium to large projects. Works with the project manager to scope new projects <b>\$77,000+</b>
Lead or Senior Business Analyst	5-10 years	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. <b>\$89,000+</b>
Business Consultant/Client Relationship Manager	10+ years	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 <b>Average salaries from Indeed.com</b>



- 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](mailto: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**