



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 **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

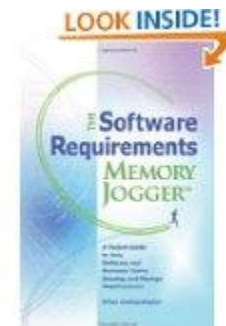
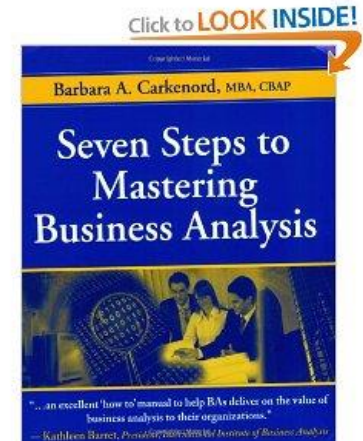
- **Understand** the shift from Quantitative to Qualitative thought
- **Learn** methods of User Centered / Ethnographic research
- **Learn** collaborative working methods
- **Learn** iterative working methods / experimentation
- **Think** and communicate visually
- **Provide** effective evaluation and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

Course Blog

<http://community.mis.temple.edu/mis3504sprint2017003/>

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 2017 Class Schedule and Deliverables								
Class	Topics	Individual Assignments	Team Assignments	Individual Deliverables due	Team Deliverables due	Reading assignment	Addition Material	Exams
1 1/17/2017	Introductions BA Role Project Client / Sponsor Introduction of JustinMind		Team Assignments Team Member Introductions Turn in Team roster			Seven Steps Chpt 1		
2 1/24/2017	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 1/31/2017	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	Modern Electronics / Distribution Warehouse Case – Project Scope	
4 2/7/2017	Elicit Requirements Interviews	Assign JustinMind Prototype Lab 1	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 2/14/2014	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	Discount Auto Parts – Sales Order Case – Process Flow Swim lane template	Exam 1 Chapter 1 , 2, 3 and 4
6 2/21/2017	Understanding Client Data Entities/Elements Introduce Project Case, Interviews	Assign Data Analysis, develop Data and views Due class 7	Team studio work: Mock interviews Scope refinements if required	Turn in individual Process Flow and Design	In Class review and revise (Draft) scope	Seven Steps Chp6 pages 235 - 237 Jogger 183 - 189	Solutions-Plus Client Project Data Analysis ERD SpreadSheet	
7 2/28/2017	Developing Business Rules	Assign Decision Tree 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	Turn in revised team project Scope	Jogger 204 - 215	We Sell All Cars – Decision Tree Case Business Rules Template	
8 3/7/2017	Design Thinking	Assign JustinMind Prototype Lab 2	Team studio work: Mock interviews Future State Design	Turn in Individual - Business rules Case		Seven Steps Chp 7		

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MIS3504 Spring 2017 Class Schedule and Deliverables								
Class	Topics	Individual Assignments	Team Assignments	Individual Deliverables due	Team Deliverables due	Reading assignment	Addition Material	Exams
3/14/2017	Spring Break							
9 3/21/2017	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 Jogger 77 - 81		
10 3/28/2017	Review Process Document Business rule - Project focus		Team studio work: Prototype Design		Draft views of project persona(s) and Scenario(s)			Exam 2 Chapter 4, 6 and 7
11 4/4/2017	Selling your ides Cross team review of scenario Cross team prototype review		Team studio work: Prototype Design		Future State Draft views of Data and Process flows			
12 4/11/2017	Group Work		Peer level reviews Develop Presentation		Draft views of Prototype and Presentation			
13 4/18/2017	Team Presentations				Class Presentations			
14 4/25/2017	Team Presentations				Class Presentations (overflow) Final Project Materials due			Exam 3 - Prototyping

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.

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?

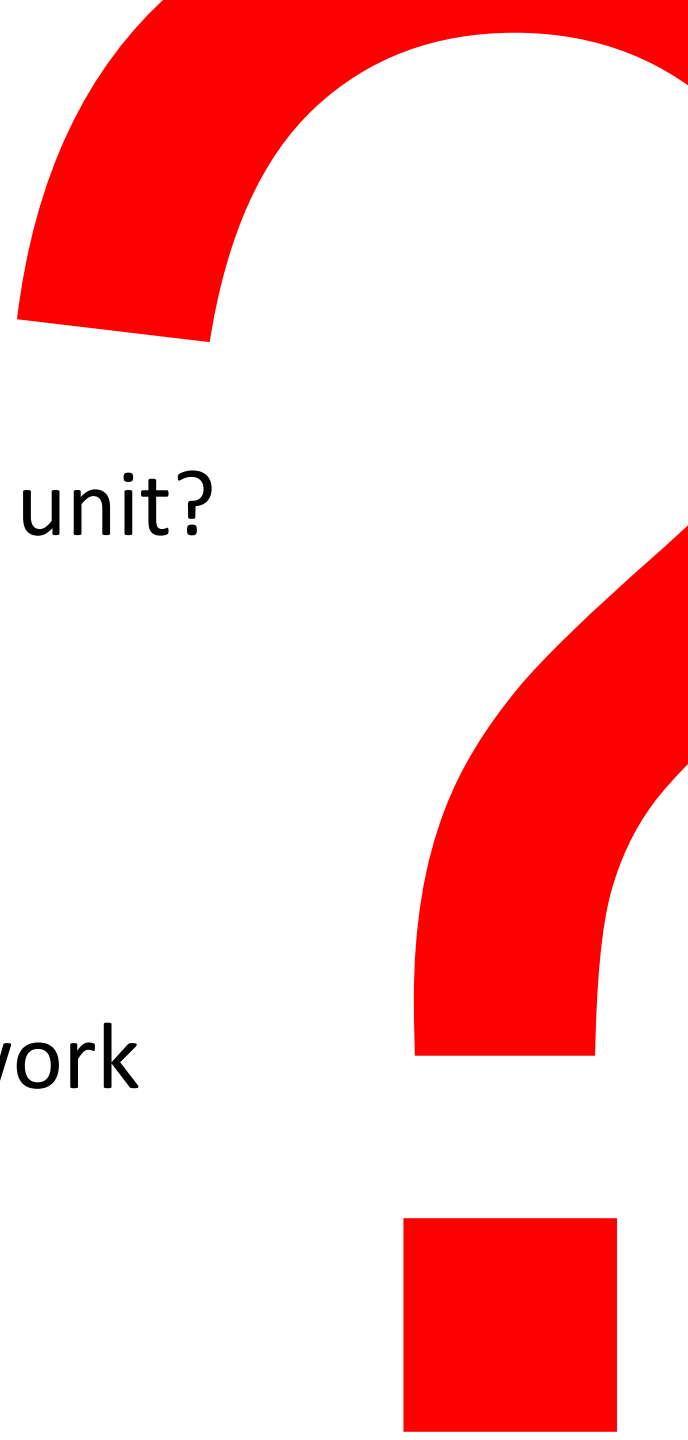
- You like technology, but not so much that you want to do it all the time.
- You like solving problems
- You like working with people and understanding their needs and concerns
- You get bored easily doing the same thing over and over
- Inefficiency and lack of effectiveness annoy you

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 \$55-60,000
Business Analyst	2-5 years	Elicit, analyze, and document requirements for medium to large projects. Works with the project manager to scope new projects \$77,000+
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. \$89,000+
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 Average salaries from Indeed.com

- 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