RPAD 549 – Cyber Security: Long Term Planning and Risk Management

Instructor: Bryan L Haynes, MPA, CISSP

Spring 2016

Course Summary:

No matter how well an economy appears to be there never seems to be enough money to go around. That is what makes budget season the most difficult for any organization, public or private. One area that has seen considerable growth in recent years even despite many other budget areas being cut is Cyber Security. Will this trend continue? Likely yes, but like all hot areas it will cool. Which means the principles and methods taught in this course will become even more prevalent.

The goal of this class is to equip decision makers with the principles and methods that will allow for more informed budget decisions as it relates to Cyber Security. First this class will review budgeting basics as well as the core of budgeting for Information Technology and Cyber Security. We will then examine Risk Management as a total program component of Cyber Security as well as applying it to the budgeting process. Finally this class will take a comprehensive approach to managing IT/IS projects from a risk management, budgeting, and procurement point of view.

Many of the principles and methods taught in this class will be valuable to all aspects of budgeting and management for IT. Too often budgeting is misinformed by political agendas, personal relationships, and overall misunderstanding of a highly technical area. Students should expect intensive hands-on work that will require intermediate knowledge of building formulas in Microsoft Excel.

Class Delivery Platform:

Our class will use a combination of Adobe Connect and Blackboard. Blackboard will be used as the primary means of content delivery. Assignments, lectures, materials, and forum discussions will all be held using Blackboard.

Adobe Connect will be our platform for live interactive communication. You will receive login instructions prior to the first class meeting which will be held in a live Adobe Connect session.

Assignments:

Weekly Cyber/Cyber Security News Article – Every week, each student will seek out a specific news article related to cyber security/budgeting/risk management to post. With the post, each student should write a half to full-page analysis of why this article is important. What are the
impacts to a particular industry, demographic, region, etc? This is not a summary, use your analytical skills. During live sessions 1-3 students will be asked to present their article to the class. Articles should be posted by Wednesday of each week.

**Blog** - Students will be required to write three (3) blogs over the course of the semester. They are spread out over the fifteen (15) weeks so that there is ample time to complete. Students are also required to post five (5) comments on other student’s blogs. Comments should be thoughtful and professional.

Blogs must be related to the topic at hand. Blog 1 must relate to budgeting for IT/IS. Blog 2 must relate to risk management for IT/IS. Blog 3 is student choice related to IT/IS. All blogs must be long enough so that the topic can be understood on its own.

**Memo Assignment #1** – Students will provide a memo describing the budget they submitted and justifying certain expenses.

**Memo Assignment #2** – Students will provide a memo describing the Risk Management Program they have designed.

**Final Project** – The entire class will be given a complex budgeting and risk scenario. Each student will be responsible for producing a budget, risk assessment results, a memo, and present the final results to the class via online VTC.

**Grades:**

Participation: 15%
Written Assignments: 25%
Online Discussion (Blog): 20%
Capstone: 40%

**Texts:**


Others as assigned by instructor. New York, NY: Routledge
Weekly Breakdown:

**Week 1**

Course overview and administration. Provide an overview of all the assignments and the schedule of completion for those assignments. Discuss cyber security, the need for sound fiscal planning in regards to IT/IT Security.

**Readings:** Wheeler Chapters 1-3,

**Week 2**

Cyber Security: Staying off the Front Page – Understanding what has been learned and how to we might allocate resources by understanding the constants of cyber security and the business needs of your organization.

**Readings:** Self discovery. Students must find specific articles, papers, or other writings that discuss real world breaches of cyber security. Students must uncover details about three separate breaches. The instructor will provide a series of probing questions that the students must respond to in an online posting. Specifically the student should rely on what they have learned to this point to provide well composed answers to the instructor’s questions.

**Week 3**

IT Budgeting Process – Students will get a crash course in IT Budgeting and evaluating value of an expenditure (ROI).

**Readings:** Bannister Chapter 1-5

**Week 4**

Budgeting for an IT Organization – Short Term results with a long-term outlook. Procurement for Information Technology and Information Security. (Video Lecture)

**Readings:** Bannister Chapter 6-9

http://www.zdnet.com/article/the-battle-for-the-it-budget-operation-versus-experimentation/

http://searchcio.techtarget.com/IT-budgeting-and-spending-strategies-guide-for-CIOs

**Week 5**
Outsourcing Cyber Security – Examining when the reward of outsourcing may outweigh the risk and vice versa.

Readings: Bannister 3.10


Week 6

Assignment Due: Complete Budgeting Problem and Memo 1

Week 7

Risk Management Overview – A look at the many analytic models that exist. Encourage the design of a proprietary implementation in all instances. No two organizations are the same.

Readings: Wheeler Part I

Assignment Due: Final date to submit Blog 1

Week 8

Risk assessment model for your organization. Students are challenged to build their own risk assessment model. Students can customize open source models discussed in class (CVSS, OCTAVE, NIST, etc) or develop their own model to expand.

Readings: Wheeler Part II

Week 9: Spring Break

Week 10

Building a Risk Management Program – Students will explore the approach to building a risk management program.

Readings: Wheeler Part III

Week 11
Assignment Due: Complete Risk Assessment Model and Memo 2

**Week 12**

Prioritizing/Legal Considerations of Procurement - Budgeted and non-budgeted items must now be given a priority. Some projects get spread across many month/years. Some are continuous, and some have diminishing resources as time progresses. This is where science turns into the art of management and leadership. Further students will explore the legal considerations when procuring IT assets.

Assignment Due: Final date to submit Blog 2

**Readings:**

**Week 13**

Catch up week

**Week 14**

Begin Final Project

**Week 15**

**Assignment due:** Blog 3

**Week 16**

**Assignment due:** Final Presentations held via VTC and last day for Blog comments

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