MARYMOUNT
U N I V E R S I T Y

School of Business Administration
2015-16

COURSE SYLLABUS

Course Number	Course Title		
IT 489-A	Capstone Project		
Fall Semester	**Spring Semester** X	**Summer Semester**	**Year** 2016

Name of Instructor	
Dr. Tom Narock	
Meeting Day, Time, and Room Number	
Students work independently and meet with instructor as needed	
Final Exam Day, Time, and Room Number	
No Final Exam for this course	

Office Hours, Location, Phone
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E-mail and Web Site
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1. **BROAD PURPOSE OF COURSE**

This is the capstone course for students in the B.S. in Information Technology program and is designed to allow students to work on their own, to simulate the work environment. Students have the opportunity to select their own project based upon their Information Technology interests.

The course is based on the Real Project for Real Clients (RPRC) methodology and the student works with a client and/or a Marymount University full-time faculty member selected by the student to reflect their area of study. The client may be a Marymount faculty member or an external client such as a not-for-profit organization.

2. **COURSE OBJECTIVES:**

Upon successful completion of this course students will be expected to:

INQUIRY OBJECTIVES

a. Formulate an appropriate information technology inquiry and provide context;
b. Gather, evaluate and use information or knowledge to support the inquiry topic;
c. Conduct research to provide the basis for the project work; and
d. Present and communicate the results of the inquiry project,

Outcomes of Writing Intensive Course

a. Students will produce written work appropriate to the discipline through a process that involves drafting and revision based on feedback.
b. Students will produce focused and coherent texts that address a specific audience, move effectively between generalizations and details, make honest use of sources, and engage complex ideas without distortion.
c. Students will produce texts that show careful attention to fluent sentence structure, grammatical correctness, and proper documentation.
d. Students will identify a suitable subject for scholarly inquiry in the discipline, analyze appropriate primary and secondary source materials, and support a focused thesis or argument in a clear and coherent product.

COURSE-SPECIFIC OBJECTIVES

a. Gather, analyze, and communicate technical information related to a specific topic in information technology;
b. Demonstrate the ability to prepare a satisfactory project proposal in the information technology field for a real client;
c. Demonstrate the successful completion of a project for a real client including a full understanding of the client's requirements;
d. Demonstrate the ability to seek out, identify and evaluate sources of valid, reliable and current information in the information technology field including potential solutions;
e. Demonstrate the ability to construct a thorough, professional and properly documented final project report on the completed project;
f. Demonstrate the ability to work independently with minimal supervision; and
g. Review a project critically and identify areas for improvement.

3. **TEACHING METHOD**

There are no regularly scheduled class meetings. Students will work independently on a topic of their choosing. Each student will have a Topic Expert and the course instructor to periodically report to. Depending upon the topic, the course instructor may also be the Topic Expert. The student and Topic Expert will establish a schedule for meeting and discussing the student's progress as needed. The student is responsible for submitting period deliverables to the course instructor via BlackBoard. All students are required to give a final in-person presentation on their project during the final week of the semester. The course instructor will arrange presentation times with students as the semester progresses.

4. GRADING POLICY

The project is graded as follows:

a.	Topic Submission	10%
b.	Peer Review 1	15%
c.	Project Draft Submission	10%
d.	Peer Review 2	15%
e.	Final Project Report	30%
f.	Meeting with Instructor	10%
g.	Project Retrospective	10%

Students must receive C- or above to pass this capstone class.

The grading scale is as follows (points obtained):

93-100 A; 90-92 A-;
87-89 B+; 84-86 B; 80-83 B-;
77-79 C+; 74-76 C; 70-73 C-;
67-69 D+; 64-66 D; 60-63 D-;
0-59 F

12, February, 2016, is the last day to withdraw from a class without academic record
18, March, 2016, is the last day to withdraw from a class with a grade of W

5. CLASS SCHEDULE

The course is self-paced with ad-hoc meetings of faculty and students as needed.

The project has the following due dates:

Topic Submission	Friday January 29, 2016 by midnight
Peer Review 1	Friday February 12, 2016 by midnight
Project Draft	Friday March 4, 2016 by midnight
Peer Review 2	Wednesday March 30, 2016 by midnight
Final Report	Friday April 29, 2016 by midnight
Project Retrospective	Friday April 29, 2016 by midnight
Meeting with Instructor	To be scheduled between 3/14 and 4/25

In addition, the student will meet as needed with their Topic Expert and the course instructor and may interact with other students through the Blackboard site and in ad-hoc meetings.

Submitting Assignments and Late Submissions

- To receive full credit, all submissions must be submitted to BlackBoard by their due date
- Each assignment builds upon the previous ones. As a result, ***all assignments must be submitted in order to receive an A***.
- Successful submission is the responsibility of the student. Verify that your submissions are actually available in BlackBoard. In the case of BlackBoard technical difficulties then you should email your assignment to Dr. Narock. It is your responsibility to ensure that the instructor receives all project deliverables by the above deadlines.
- ***Late submissions will lose 2 points per day they are late***
- The Peer Review Assignment affects other students in the course and as such cannot be submitted late. Any Peer Reviews not submitted on time will receive a grade of 0.

Requirements for deliverables are as follows:

Topic Submission: (3 pages of written text)

The topic submission is your chance to define your project. You should think about which aspects of Information Technology most interest you and would motivate you for further study. An appropriate topic should either 1.) apply specific Information Technology skills to a real-world problem or 2.) design, develop, and deploy a research study to evaluate Information Technology. Some examples of the application project include identifying an organization with information technology needs, designing a solution to those needs, and deploying a prototype of that solution. In previous semesters students have created mobile apps and e-commerce sites for their organization. An example of a research study project is the examination of digital currencies, such as BitCoin, investigating how they operate and should they be regulated.

The thing that is common to both of these project types is a testable hypothesis. ***All IT Capstone projects must have a testable hypothesis.*** If you are deploying an IT solution for an organization, what are your expectations for success? How can you show that other potential solutions are not better? How can you show that you met the customer's needs? Examples of testable hypothesis in this case is, for example, "my solution will be faster than the existing system and I will show this through a side-by-side technical evaluation" or "my solution will better meet the customer's needs and I will show this through responses to a survey I conduct".

If you are creating a research study, you still need a testable hypothesis or point of view to base your argument around. For example, "BitCoin should be regulated" could be an appropriate starting point and your research and references would be an attempt to validate this point. In the end, you may find that the references and evidence contradicts your original hypothesis. ***That is ok. As long as your final paper and presentation clearly indicate why your hypothesis was not correct and what you learned about the alternative point of view.***

You should identify a full-time faculty member in the Information Technology department who will act as your content advisor. Think about a topic and discuss with an appropriate faculty member and ask if they will be responsible for supervising your work. Get approval from the faculty member that they are available to work with you this semester. Dr. Narock, the course instructor, is also available to discuss and supervise topics.

Your Topic Submission must be 3 pages of written text that includes (2 points each)

1. A description of your topic – write as if you are introducing the topic to someone not familiar with it. What is the background and history of this topic? Why is it important? What should a novice in this area be aware of?
2. Testable Hypothesis – What are your starting assumptions and expectations for this project? What will you measure? What metrics could you use to demonstrate you found the best solution? How will you know the customer is happy? How do we know you met the customer's objectives? If your project involves researching a topic and does not involve much (or any) development, then what is your thesis? What position do you take on the argument? What points will you try to convince the reader of when you write?
3. Your faculty mentor – Which faculty member would you like to work with? Why? Document that you have contacted that faculty member and they have agreed to work with you
4. Propose a timeline for your project. What do you need to accomplish to finish this project? How will you divide up the semester to accomplish everything that needs to be done? How much time will you devote to each item you need to finish?
5. What types of data and/or references will you need? What is your initial strategy for collecting data and identifying relevant references?

Peer Review 1: (2 pages of written text)

Your job with the first peer review is to review a fellow classmate's Topic Submission. All peer reviews will be anonymous. That is, you will not know the author of the topic submission you are reviewing. The author will not know who wrote their review. The objective of the peer review is place yourself in the position of an IT manager. Does the topic seem feasible to you?

The Peer Review must contain

1. What is the author's thesis or testable hypothesis? After reading the submission is it clear to you what the author is attempting to do? Has the author clearly stated their stance/position on the issue and what they will test or measure?
2. Is the document well written? You do not need to point out every grammatical error. However, you should point out any logical errors and highlight a few grammatical and syntactical errors.
3. Is the timeline feasible? Given what the author described and the timetable they proposed, can this project reasonably be completed in one semester.
4. Any comments for improving the project – such as resources to look at or ideas to try

Project Draft: (8 or more pages of written text with at least 10 references)

All projects must be initially documented in a project draft report. The document should be concise and include the following:

Cover Page with Honor Pledge (can be found on BlackBoard)
Table of Contents
Objective of your project (similar to topic submission, but now
    including feedback from your faculty mentor and peer review)
Client (if applicable, background on the organization your project is
    creating an IT solution for. Who is the organization and what
    are there IT needs for this project). If no external client then
    use this section to discuss what point of view, argument, or
    thesis you plan to convey to the reader
Content Advisor with summary of qualifications (who is your faculty
    member and what work have they done in this area)
Project Plan (what will you do and how will you do it, include a
    planned schedule, how long do you anticipate each step will
    take)
Resources (do you need access to any IT resources such as servers,
    storage devices, cloud computing, special software? If so,
    how will you obtain access? Will the organization provide
    these resources? Are they free?)
Project Details – this is where you make your argument, support
    your points with data and references, and provide a detailed
    discussion of your capstone project. Describe what you have done with the project up to
    this point. What do you have left to do.
Knowledge being applied (which courses, background knowledge, or
    prior experience might be applicable to this project? What
    might you have to learn this semester to successfully finish
    this project?)
Risk factors (are there specific things that could negatively impact
    your project? Are you dependent on an organization rolling out a new product? What
    happens if that product gets delayed? What happens if you need special resources and
    they are not available? What issues and challenges might you run into this semester?).
    You should also consider any risk factors for your client. For example, while your
    solution may solve one technical challenge for the client, would it introduce problems
    elsewhere in the organization? Would it eliminate jobs? What would a full-scale
    production deployment of your solution involve? Could the customer/client afford this?
Work to be performed by others (are you using software, resources,
    or work provided by others? You need to make it very clear what you will be doing and
    what others will be doing. It needs to be clear that you are providing a significant
    amount of work this semester. You are welcome to reuse and build upon other's work.
    However, it must be clear that you are significantly extending that work.)
Reference Section – Your project must include at least 10 scholarly
    articles, technical web sites, or books related to your topic. A "References" section
    should be at the end of your draft listing these resources. Also, within the text you

should make reference to these resources. References should be used to strengthen the argument you are making in your paper. ***All references cited in the Reference section must be mentioned somewhere in the text***. An excellent source of scholarly materials is Marymount's Summon web site: http://marymount.summon.serialssolutions.com/#!/

Peer Review 2: (2 pages of written text)

You will be asked to peer review *one* project draft. Reviews will be anonymous. You will not have the name of the student whose paper you are reviewing. You will also not be told who reviewed your paper. Thus, you can feel free to be honest and critical. The purpose of the peer review is to assess how well other students have made their case. Do they make a convincing argument? Do the results of the evaluation support their claims? Details on how to provide a proper review will be made available via BlackBoard.

Final Project Report: (at least 8 pages of written text and 10 references)

Figures and tables are encouraged. However, figures and tables cannot be used instead of written text. Papers containing full page and multi-page figures will receive reduced credit.

If your project involves mobile app development, web page development, or any other type of software development, then you must submit all code in addition to your 8 pages of written text.

Your final project report is to revise and extend your Project Draft. It should accomplish 3 things:
1. Completion of what you set out to do this semester
2. Revision of the project draft text to include information on things that have been done since the draft was submitted
3. Revision of the project draft text to address comments made by the peer reviewers

Meeting with the Instructor:

Each student is required to set up a brief (about 15 minute) meeting with the course instructor sometime between March 14 and April 25. During this meeting the student will present the current status of their project and answer questions. In doing so, students will demonstrate they are proficient in their chosen topic and defend their research.

Project Retrospective:

A short one- to two-pages of analysis of how you did or did not meet the timeline for the plan, what was harder/easier than expected, what "gaps" you felt there were in your undergraduate program which may have impacted your performance on the project, and what you learned from the project.

6. REQUIRED TEXT

None