GIS Project Leadership and Management in the Enterprise – GES 678

Professor John W. Schlee, GISP, ITIL, CSM
Office Hours: By appointment
E-mail: jschlee@umbc.edu

Course Description:

This graduate-level course focuses on the study and application of structured analysis and design methods throughout the GIS life cycle. The course stresses standard approaches for gathering requirements, modeling, analyzing, and designing geographic information systems. The course employs the case method of instruction.

Course Goals:

- Understand the components of an enterprise-wide GIS.
- Develop a thorough understanding of how to manage and lead an enterprise-wide GIS program withing your organization.
- Understand how to overcome obstacles and create opportunities.
- Develop and maintain documentation to support the full system development lifecycle of the GIS project.
- Review of current event / issue impacting industry, State of the GIS industry and its impact on GIS management and leadership.

Course Evaluation:

All assignments will be turned in to Blackboard within 1 week of the due date.

Assignments / Homework	85%
Final Presentation	15%

Class Schedule:

Week	Date	Lecture Topic
1	August 27	• Orientation • Class setup • Big picture Overview of approach Strategic Planning Strategic Purpose • Mission • Vision
2	September 03	Role and responsibilities in the project

		Developing a GitHub site for the program
3	September 10	Organizational issues / Governance Staffing / GIS Manager Position Descriptions
4	September 17	Strategic Plan presentations by students Concept Plans
5	September 24	Planning Process
6	October 01	Requirements Gathering Technology Seminar Information Products
7*	October 08	Data Design Logical Data Model Database Design Test Plans
8	October 15	Risk Analysis /Risk Log Strength Weakness Opportunity Threats
9	October 22	Scheduling /Milestones / Tools Legal Issues
10	October 29	Change Management Communication Planning
11	November 05	Migration Scorecard Analysis
12	November 12	Cost benefits /avoidance Funding / Finance System Requirements
13	November 19	Planning the Implementation Staffing / RFP's Deployment Topics Lessons Learned
	November 26	No Class, school closed for holiday
14	December 03	GIS Office Additional Resources Operation Support
15	December 10	Final Presentation

Classes may be held asynchronous remote due to weather or other conditions.

Required Texts:

Roger Tomlinson. Thinking about Geographic Information Systems for Managers 4th Edition. ESRI Press, Redlands, CA.

Required Articles:

In addition to the required text, additional articles will be required for this course. The class will use GIS Strategic Plans prepared for organizations at various levels of government. These

documents will be used to do case studies throughout the class lessons. These documents will be posted by the students and be available on the course website in Blackboard.

Student Evaluation:

To receive a letter grade of an 'A' the student must adequately demonstrate a full understanding of both aspects. The letter grade of a 'B' will be earned if the student is only able to demonstrate a solid understanding of one aspect but is lacking in the other. A letter grade of 'C' or lower will be given if the student is unable to demonstrate sufficient knowledge of either aspect.

The grading rubric is each assignment will carry the same percentage weight, to which that percentage will be based on the total number of assignments completed across the semester. The percentage for each assignment will be the quotient from the total number of assignments divided by 100. Grades will be determined on a weighted percentage basis. 90-100% = A to A-; 80-89% = B+ to B-; 70-79% = C+ to C-; less than 70% = F.

For any reason an assignment cannot be turned in on time a student MUST do two things. First, the student must notify the instructor with a full description of the reason before the date it is due. Second, the student must give a due date to turn in the assignment afterwards. That due date cannot be later than the start of the next class. If the assignment is not turned in by that date, then a letter grade will be deducted based off the grade the student received from initial review. If the assignment is not submitted two weeks after the due date, the student will receive no credit for the assignment.

Writing Quality Expectations for Assignments and Exams

This course is part of a curriculum that awards a Masters in Professional Studies (M.P.S.) degree. Because the course requires students to describe -in writing- their interpretations of statistical results it is expected that students will generate products that meet the professional standards of such a program. One of the main facets of an M.P.S. is to gain an ability to clearly communicate analytical results to audiences of all types. All assignments and project products for this course will be evaluated on the student's ability to write a high quality report of findings. Exercises and projects are designed to train students on how to professionally report analytical results in documents or write software code that others will read or use. This is an important facet in demonstrating the value of geography and spatial analysis over other forms of analysis. All products, written or coded, must be thoroughly defined and polished. Poorly written assignments may be downgraded one letter from achieved grade.
UMBC offers two options for helping students improve their writing. The first is through the USG Center for Academic Success, who directly help students improve their writing. The second option is through the UMBC Writing Center, which offers online tutoring for ANY written

assignment in ANY course during both summer sessions. Students may choose to chat synchronously online with a tutor or submit a paper and receive asynchronous feedback. All appointments must be made at least one day in advance of meeting for a session. The following is a rubric for writing expectations:

Students with Disabilities:

"UMBC is committed to eliminating discriminatory obstacles that disadvantage students based on disability. Student Support Services (SSS) is the UMBC department designated to receive and maintain confidential files of disability--related documentation, certify eligibility for services, determine reasonable accommodations, develop with each student plans for the provision of such accommodations, and serve as a liaison between faculty members and students regarding disability-- - related issues."

If you require certain accommodations, please submit an application (found at http://sds.umbc.edu) and all disability documentation to Student Disability Services. Please see the application for details on appropriate documentation guidelines. For information or questions about the application, please call 410-455-2459.

Plagiarism:

Copying or using another's work in written or oral form -partial or complete- without giving credit to the other person is a serious academic offense and is taken VERY seriously in this class, by the Department and by the University of Maryland, Baltimore County. UMBC specifically defines plagiarism as anyone who:

> "knowingly, or by carelessness or negligence, representing as one's own in any academic exercise the words, ideas, works of art or computer-generated information and images of someone else."

Any student who plagiarizes will be referred to the Department Chair and will be subject to the policies of the university. In general, the consequences of plagiarism include failing an assignment, receiving a lower course grade, and even failing a course.

Examples of plagiarism are:

- Submit someone else's work as your own.
- Buy a paper from a paper-mill, website or other source.
- Copy sentences, phrases, paragraphs, or ideas from someone else's work, published or unpublished, without giving the original author credit.
- Replace select words from a passage without giving the original author credit.
- Copy any type of graphics, tables, graphs, maps, or charts from someone else's work without giving the original author credit.

- Piece together phrases, ideas, and sentences from a variety of sources to write an essay. Build on someone else's idea or phrase without giving the original author credit.

Details about avoiding plagiarism, examples, and disciplinary policies should be reviewed to to gain a clear understanding prior to working on an assignment or exam.

Important Dates:

Information on other dates can be found at https://registrar.umbc.edu/calendars/academic-calendars/

For any additional information, please contact John Schlee, jschlee@umbc.edu.

References

Peter L. Croswell. The GIS Project Management Handbook,
John E. Harmon and Steven J. Anderson. The Design and Implementation of a Geographic Information System,
Geographic Information Science and Technology Body of Knowledge
Concepts from the following
ITIL Foundation
Project Management Body of Knowledge
SCRUM Body of Knowledge

Case studies from multiple organizations on Strategic Plans