MGSC 394 - Computer Based Decision Making

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Office Hours: By appointment, however, feel free to stop by or call without an appointment.

Course Objectives: The purpose of this course is to develop two sets of skills in students. First, they should be able to use standard software tools that are used in business. Secondly, students should be able to use the computer as an aid in decision making. Specifically, at the completion of this course, students should have the ability to:

- use standard spreadsheet, database and project management software used in business.
- formulate a business problem into a spreadsheet model.
- analyze business data with Excel.
- use a database for business decision making.
- understand the basics of project management software.
- understand how to use GIS software to gain insight for business decisions.
- use Visio within the context of process mapping and root cause analysis.

Grading:

In-class Assignments 100 points
Projects (4 or 5) 500 points total
Final Exam 250 points
Excel Quiz 1 – in class 50 points
Excel Quiz 2 – in class 50 points
Online Quizzes 50 points

The final exam will be primarily open book and open notes using the computer packages that we use in the course. If a student does not demonstrate a minimum level of competency on the final, the instructor reserves the right to disregard the other grades assigned in the course and assign grades based solely on the final exam. Two of the grades for in-class assignments will be dropped. Excused absences will be treated as assignments that are not turned in unless there are more than two excused absences. In that case, the assignments for the first two excused absences will be dropped and assignments for subsequent excused absences will not count against the student. Excused absences must be documented for the instructor within one week of the absence.
**Important!!!!!!** Students are expected to be on time for class. Students that are not present at the start of class may not receive credit for the in-class assignment.

**Homework Assignments:**
All assignments unless otherwise noted are individual assignments. Students must not copy their assignment from someone else or perform the assignment in conjunction with another student. If I find evidence that an assignment is copied, neither student will receive credit for the assignment.

Homework assignments must be turned at the beginning of the class on the day they are due. No late assignments are accepted without prior approval of the instructor (which is only granted in the most extreme of circumstances). Your computer crashing the night before does not constitute an extreme circumstance.

**Course Overview**
*Module 1 Advanced spreadsheet modeling using Microsoft EXCEL.*
It is assumed that students have proficiency with the use of EXCEL at the level that it is taught in MGSC 190.
Topics Covered:
- Addressing conventions and functions
- Importing data into Excel
- Excel lists
- Pivot and data tables
- Table lookup
- Charts
- Recorded macros
- Analyzing data with Excel using descriptive statistics

*Module 2 Database using Microsoft ACCESS.*
Topics Covered:
- database basics such as creating tables, building queries, preparing forms and generating reports
- Creating switchboards
- Analyzing business problems

*Module 3 Geographical Information Systems using MapPoint.*
Topics Covered:
- Displaying geographical information
- Distribution center location decisions
- Location of Services
- Analysis of spatial and demographic marketing information

*Module 4 Project Management*
Topics Covered
- project scheduling
- PERT
• Crashing projects
• using Microsoft Project.

Module 5 Creating business diagrams with Visio (time permitting)
• Mapping business processes with flowcharts and other diagrams
• Root cause analysis with Fishbone diagrams