Course Syllabus
MIS 3210 004/005– Critical Thinking using Analytics
Fall Semester, 2020 (Aug 17-Nov 24, 2020)

IMPORTANT – PLEASE READ: COVID-19 Notice

Instructor Information:
Name: Avanti Pandit, MBA, MSIS, PMP
Email: apandit1@memphis.edu
Phone: 508.423.6392 (personal cell)
Office Location: online for this semester
Office Hours ON ZOOM:
Fridays 11-1pm; individual appointments will be scheduled as needed.
https://memphis.zoom.us/j/5695591725
[Please note that this is different from your class zoom]

FIRST CLASS/MONTH: ON ZOOM on August 18, 2020

Section 004: Tuesday/Thursday @ 1pm
(First meeting MANDATORY ATTENDANCE)
Join Zoom Meeting
https://memphis.zoom.us/j/96549867675?pwd=e5s5OWxjNIY4NkszK1f1eGhwWHZvUT09
Meeting ID: 965 4986 7675
Passcode: 388837
One tap mobile
+13017158592,,96549867675#,,,,0#,388837# US (Germantown)
+13126266799,,96549867675#,,,,0#,388837# US (Chicago)

Section 005: Tuesday/Thursday @ 2:40pm
(First meeting MANDATORY ATTENDANCE).
Join Zoom Meeting
https://memphis.zoom.us/j/97671977288?pwd=WDgxajMzSUsxMnZuWitHN2VObi9Wdz09
Meeting ID: 976 7197 7288
Passcode: 913322
One tap mobile
+13126266799,,97671977288#,,,,0#,913322# US (Chicago)
+19292056099,,97671977288#,,,,0#,913322# US (New York)
CLASS LOGISTICS
This class will be run as a REMOTE class.
We will have LIVE/ZOOM sessions at your designated class scheduled times every week as well.
Please note that the zoom sessions are DIFFERENT for the two sections at this time. This may change after the first few classes. All learnings are posted on ecourseware. Bring your questions to class.

Course Overview:
This is a general introduction to the tools and methods used in business analytics. We focus on development of critical thinking skills through use of in-depth assignments that utilize data analysis tools and require data analysis and interpretation.

Course Objectives:
Once you have completed this course, you should be able to demonstrate the following knowledge, skills, & abilities:

- Use critical thinking and other higher-order thinking skills to identify areas of inquiry that have the highest potential to derive new knowledge and actionable insights for a business organization.
- Explain the role of big data analytics in the inquiry process.
- Provide a basic explanation of specific big data analytics techniques such as trend analysis, association analysis, and prediction.
- Conduct specific types of data analyses using computer-based tools such as Excel, Access, Tableau and WEKA.

Basis for course objectives:
The objectives for this course were formulated by a team of faculty in the BIT department and are based upon a significant amount of input from business executives, industry experts, other FCBE faculty, and business school accreditation guidelines (AACSB). The specific topics covered in this course are based upon the current and projected demand for job skills that employers will need to achieve the strategic goals of their organizations.

Pre-Requisites/Co-Requisites:
This is an upper-division required course for all FCBE majors. Lower division core courses must be completed before enrollment in this course is permitted.

Fogelman College: Learning Outcomes for Your Degree
The Fogelman College has established the following learning goals for all students successfully completing the BBA degree:

- Graduates will be effective communicators.
- Graduates will demonstrate critical thinking skills.
- Graduates will be knowledgeable about ethical factors in the business environment.
- Graduates will be knowledgeable about the global business environment.
- Graduates will be proficient users of business presentation and analysis technology.
Course Methodology
The instructional methodology of this course will be a combination of PowerPoint and video presentations and hands-on activities using Microsoft Excel, and Access, Tableau, and other apps (open source data analytic tools).

Grading and Evaluation Criteria:

Final Course Grades:
Your final letter grade is based on your overall average. Your overall average is calculated as the sum of all the points you earned on graded assignments divided by the total number of points possible. The letter grade is based on the following schedule:

- Above 90% ................................................................. A
- Above 80% but below 90% ............................................ B
- Above 70% but below 80% .......................................... C
- Above 60% but below 70% .......................................... D
- Below 60% ................................................................. F

+,- letter grades may be assigned at discretion of instructor.

Scoring Methodology Used to Determine Course Grade:
Points earned on the assessed activities will be distributed as follows:

- 3 Homework Project Assignments (3 * 100) pts .......... 300 points
- 9 Quizzes (9 * 50) pts ................................................ 450 points
- 10 Class Activities (10 *20) pts .................................. 200 points
- 1 Final Exam/Quiz 10 (1 * 50) pts ............................... 50 points

Total Possible for Semester ........................................ 1000 points

Final Exam Information
The final exam will be conducted during the final exam week. The final exam is 50 multiple choice questions over the content in the PowerPoint slides.

All quizzes (and the final exam) are open book / open notes but discussions and chatter with classmates during exams will not be tolerated.

Extra Credit Opportunities:

You may earn points for extra credit (with a maximum of 10 points) by attending up to 5 official academic events such as: Each event constitutes 2 points.

- A professional-development event sponsored by the Fogelman Complete Professional Program through the Fogelman Professional Development Center (See professional@memphis.edu for more information).
- A registered student organization (RSO) event (such as an AMIS meeting) as long as the RSO is affiliated with the Fogelman College of Business and Economics (FCBE).
- Other professional-development events. Please check with your instructor as to what events are approved for extra credit.
• Listening to a TEDx talk online – each selection must be over a duration of 15+ minutes; the selection must be relevant to the course. **Submit: Name of selected talk with link and Month/Year of posting AND a brief summary of the talk in 1-2 paragraphs with some notable points you learned. [DO NOT COPY THE POSTED SUMMARY – WRITE YOUR OWN]**

**How to get the extra credit points:**
If you attend an event that qualifies for extra credit, please **take a screenshot of online event with you as participant or selfie** at the in-person event which includes you AND the speaker at a safe distance. Upload the required information for the different type of events to the Extra credit dropbox.

**Required Texts (and Related Materials):**

**COMPUTER & SOFTWARE:**
This course requires the use of a computer and specific software programs. To complete some of the assignments, you will need access to a computer that can access specific software programs such as Microsoft Excel, Microsoft Access, Tableau, and WEKA. **You may install these applications on your laptop, use the Lab Classroom PC’s, or access from your own PC the software installed on the University’s Virtual Computer via Citrix.** Please see the eLearn course home page for links to these applications and further instructions on how to save your work.

**READING ASSIGNMENTS:**
All the outside reading material for this course is available online. The elearn [Content] page has links to all the weekly reading assignments.

The business analytics readings may be either journal articles or eBook chapters. Book chapters are assigned from this text: *Behind Every Good Decision: How Anyone Can Use Business Analytics to Turn Data into Profitable Insight*, By Piyanka Jain and Lakshmi Jayaraman. Published by AMACOM, 2015. Links to the eBook chapters are available at: [Data Analysis eBook](#)

**Professor's Expectations of Students:**
• All homework assignments and Activities are individual assignments and each person is expected to create their own files and do their own work. **Collaboration on assignments is cheating.** If you turn in another student’s work as your own, you will receive a 0 on that assignment. If this occurs more than once, you will receive a failing grade for this course. Students who shared their work with others will receive a 0 on those assignments as well.

**Class sessions:**
• You are expected to work on your own BEFORE CLASS.
• **Come prepared to ask questions for class activities DUE on that week during your regular class times.**

**Due Dates on assignments**
• Unless otherwise noted,
  o Quizzes will be opened online as per schedule below. You are expected to not discuss questions or share answers.
• Class activities are due by **FRIDAY OF SAME WEEK as per table below.**
• Homeworks are due by **FRIDAY THE FOLLOWING WEEK as indicated below**. Please check ecourseware for due dates.
• Homeworks and Class Assignments must be turned in to their dropboxes. No assignments are accepted as email attachments.

<table>
<thead>
<tr>
<th></th>
<th>Suggested Begin</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q&amp;A/ Demos/ Clarifications</td>
<td></td>
<td>Scheduled Class times</td>
</tr>
<tr>
<td>Class Powerpoints/ Videos etc</td>
<td>Sunday/Monday</td>
<td>Tuesday/ Thursday before class</td>
</tr>
<tr>
<td>Class Activities</td>
<td>Sunday/ Monday</td>
<td>Friday 11:59pm</td>
</tr>
<tr>
<td>Homeworks</td>
<td>After introduction in relevant week</td>
<td>Friday 11:59pm FOLLOWING WEEK</td>
</tr>
<tr>
<td>Quizzes (EXCEPT FINAL EXAM)</td>
<td>Thursday – your class time</td>
<td>Closed by Friday 11:59pm</td>
</tr>
</tbody>
</table>

Final Quiz will be conducted during exam week and will be as per University schedule.

**Late Assignments:**
• **You are expected to turn in your assignments on time.** The due dates for assignments are provided on the weekly schedule (above) and are posted on eLearn. **5 Points will be deducted for each day that you are late with Homeworks, and 1 point for every day you are late with Class Activities.**
• Do not turn in assignments as email attachments, please! No assignments turned in as an email attachment will be graded.
• **Quizzes will be deactivated after the date and time they are due.** Quizzes will not be re-opened for any student unless the student has a valid reason why they could not submit their quiz on time. Please discuss with professor individually.

**Course Policies**

**E-mail:**
All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account. It is your responsibility to check your inbox frequently and read all email messages from the course instructor.

**Attendance and in-person Hybrid model**
Due to COVID-19, attendance is recommended but not required. However each student is expected to review powerpoints and do work on their own. Class times should be used constructively to resolve questions. It is your responsibility to keep up with work.

**Academic Integrity:**
The University of Memphis has clear codes regarding cheating and classroom misconduct. If interested, you may refer to the Student Handbook section on academic misconduct for a discussion of these codes. Note that using a “Solutions Manual” is considered cheating. Should your professor have evidence that using a “Solutions Manual” has occurred, he/she may take steps as described on the campus’ [Office of Student Conduct website](https://studentconduct.memphis.edu) If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the [Fogelman College's Website on Academic Integrity](https://www.fogelman.memphis.edu/academic-integrity).
We will be using Turnitin software for comparing submissions and evidence of copying and cheating will be dealt with severely.

**Classroom or Online Behavior:**
All participants in the course should be considerate of the other course participants and treat them (as well as their opinions) with respect. The class will operate under the assumption that any and all feedback offered is positive in nature and that the intentions of the person(s) providing feedback are strictly honorable. Insensitivity in this area will not be tolerated. If you have any questions about online communication, you should review the [Fogelman College's Netiquette website](opens in new window).
**Course Schedule:**
ICA (Class Activities) due on Fridays at 11:59PM.
Quizzes are due on Fridays at 11:59PM.
Homeworks are due on following week Fridays at 11:59PM.

<table>
<thead>
<tr>
<th>Course by Week</th>
<th>Topic</th>
<th>Reading Assignments</th>
<th>Homework Project (HW) In-Class Activity (ICA) or QUIZ Quiz opened on Thursdays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1: Aug 17th - Aug 22nd</td>
<td>Review Syllabus, PPT #1A: Making Good Business Decisions, PPT #1B: Introduction to Big Data Analytics</td>
<td>Readings #1-3 Links on eLearn</td>
<td>Quiz #1 (over syllabus &amp; PPT #1A)</td>
</tr>
<tr>
<td>Week 2: Aug 23rd – Aug 29th</td>
<td>BA #2: Initiating Analytics Projects, ICA #1</td>
<td>Readings #4-5 Links on eLearn</td>
<td>ICA #1: BADIR steps 1 &amp; 2, Quiz #2 (over PPT #1B)</td>
</tr>
<tr>
<td>Week 3: Aug 30th – Sept 5th</td>
<td>BA #3: Excel Review / ICA #2, BA #4: Database Concepts</td>
<td></td>
<td>ICA #2: Excel review, Quiz #3 (over BA #4)</td>
</tr>
<tr>
<td>Week 4: Sept 6th – Sept 12nd</td>
<td>BA #5: Create a database / ICA #3, BA #6: PivotTables / ICA #4</td>
<td></td>
<td>ICA #3: Create a database, ICA #4: Create Excel PivotTables</td>
</tr>
<tr>
<td>Week 5: Sept 13th – Sept 19th</td>
<td>BA #7: Instructions for HW #1, BA #8: Excel Charts &amp; Dashboards / ICA #5</td>
<td></td>
<td>ICA #5: Create Excel Charts</td>
</tr>
<tr>
<td>Week 6: Sept 20th – Sep 26th</td>
<td>BA #9: Instructions for HW #2, BA #10: Data Visualization Concepts</td>
<td>Reading #6 link on eLearn</td>
<td>Quiz #4 (over BA #10 &amp; reading), HW #1: Create PivotTables</td>
</tr>
<tr>
<td>Week 7: Sep 27th – Oct 3rd</td>
<td>BA #11: Data Viz with Tableau / ICA #6, BA #12: Instructions for homework #3</td>
<td></td>
<td>ICA #6: Tableau for Data Viz, HW #2 - Create Excel dashboard</td>
</tr>
<tr>
<td>Week 8: Oct 4th – Oct 10th</td>
<td>BA #13: Big Data Technologies, Work on Homeworks &amp; Assignments</td>
<td></td>
<td>Quiz #5 (Over BA #13), HW #3: Storyboard with Tableau</td>
</tr>
<tr>
<td>Week 9: Oct 11th – Oct 17th</td>
<td>BA #14: Data Mining-Pt 1 (Regression)/ICA #7, Finish up Homework #3</td>
<td></td>
<td>ICA #7: Regression with Excel, Quiz #6 (Over BA #14)</td>
</tr>
<tr>
<td>Week 10: Oct 18th – Oct 24th</td>
<td>BA #15: Data Mining – Pt 2 (Classification)/ICA #8, BA #16: Data Mining - Pt 3 (Cluster Analysis)</td>
<td></td>
<td>ICA #8: Classification with WEKA, Quiz #7 (Over BA #15 &amp; 16)</td>
</tr>
<tr>
<td>Week 11: Oct 25th – Oct 31st</td>
<td>BA #17: Data Mining – Pt 4 Cluster with WEKA / ICA #9, BA #18: Data Mining – Pt 5 (Mkt Basket) / ICA #10</td>
<td></td>
<td>ICA #9: Clustering with WEKA, ICA #10: Market Basket Analysis, Quiz #8 (over BA #17 &amp; 18)</td>
</tr>
<tr>
<td>Week 12: Nov 1st – Nov 7th</td>
<td>BA #19: Data Mining – Pt 6 (Sentiment Analysis), Extra credits opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 13: Nov 8th – Nov 14th</td>
<td>BA #20: Digital Analytics, BA #21: Google Analytics</td>
<td></td>
<td>Quiz #9 (over BA #19, 20 &amp; 21)</td>
</tr>
<tr>
<td>Week 14: Nov 15th &amp; 21st</td>
<td>Review Class/ MAYBE:Speaker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 18th - Nov 24th</td>
<td>Final Exam as per University Schedule</td>
<td>TBD</td>
<td></td>
</tr>
</tbody>
</table>

* Quizzes are open-book, open notes.
Syllabus Changes:
The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

Student Services
Please access the FCBE Student Services (opens in browser window) page for information about:
- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance

Health Concerns
Students who have a positive COVID-19 test should contact the Dean of Students at deanofstudents@memphis.edu.

Student Accommodations
Students who need additional resources can contact the Dean of Students Office at https://www.memphis.edu/deanofstudents/crisis/index.php.