COLLEGE/SCHOOL/SECTION: ARSSB/DIBTS

Course: Add: X Delete: ___ Delivery: MIS4320
(check all that apply) Change: Number___ Title___ SCH___ Description___ Prerequisite ___
Response Required: New course will be part of major X minor___ as a required ___
or elective___ course
Response Required: New course will introduce___, reinforce___, or apply___concepts
Response Required: Grade Type___ Normal (A-F)___ CR/NC___ P/F

Shortened Course Format: Equivalent Student Learning Outcomes verified: ____

If new, provide Course Prefix, Number, Title, Measurable Student Learning Outcomes, SCH Value, Description, prerequisite, and lecture/lab hours if applicable. If in current online catalog, provide change and attach text with changes in red and provide a brief justification.

Program: Delete: ___ Add: ___ Change: ___ Attach new/changed Program of Study description and 4-year plan. If in current online catalog, provide change and attach text with changes in red.


Minor: Add: ___ Delete: ___ Change: ___ Attach new/changed minor. If in current online catalog, provide change and attach text with changes in red.

College Introductory Pages: Add information: ___ Change information: ___
Attach new/changed information. If in current online catalog, provide change and attach text with changes in red.

Other: Add information: ___ Change information: ___ Attach new/changed information. If in current online catalog, provide change and attach text with changes in red.

Approvals:

Chair
Department Curriculum Committee

Chair
Department

Chair
College Curriculum Committee

Dean

Provost

2014

Signature

Date

2/11/2015

2/12/2015

R. Stephen Sears

2/23/2015
COURSE SYLLABUS

Course: MIS-4320-101 Data Mining and Business Intelligence
Class Time/Location: Day, Time @ Room
Instructor: Dr. Thant Syn
Office Hours: Day, Time
E-mail: thant.syn@tamiu.edu
Required Text: Business Intelligence and Analytics: Systems for Decision Support, 10/E
Ramesh Sharda, Dursun Delen, Efraim Turban
Prentice Hall
ISBN: 9780133050905
Recommended: Additional readings will be announced in an ongoing basis.
Prerequisite: DS-3210 or approval by the instructor
Course Description: This course will introduce students to various statistical techniques frequently used in
analyzing data to generate information useful in business decision-making. Advanced
data-analytic techniques such as mathematical optimization, data mining, and artificial
intelligence models will also be introduced using software-based data analytic tools.
Course Goals: The primary aim of this course is to provide students with hands-on experience in
analyzing data for decision-making in businesses using commonly available data mining
and business intelligence tools.
Learning Objectives: At the completion of this course, students should be able to:
1. Determine the data analytic techniques appropriate for various decision-making
   scenarios,
2. Use commonly available analytic tools to analyze data and present information in
   the most effective manner, and
3. Devise and recommend a solution based on the information provided by the data
   analytic tools.
Grading Policy:
Grades will be determined based on the students’ individual and group performance in the following
components of the course:
Attendance & Participation .............. 10 points
Midterm Exam............................... 20 points
Final Exam.................................. 30 points
Project...................................... 40 points
Total........................................ 100 points
Letter Grades
The letter grades will be assigned based on the following grading scheme:
90 - 100% .................................. A
80 - 90% .................................. B
70 - 80% .................................. C
60 - 70% .................................. D
below 60%................................. not passing
Attendance Policy:
Students are required to attend and participate in classes. Attendance will be taken regularly and
participation will be recorded for every activity in the class.
Other Course Policies:
Detailed policies of the exams, group project, and other assignments will be made available in an ongoing basis in class.

Classroom Behavior

The A.R. Sanchez, Jr. School of Business encourages classroom discussion and academic debate as an essential intellectual activity. It is essential that students learn to express and defend their beliefs, but it is also essential that they learn to listen and respond respectfully to others whose beliefs they may not share. ARSSB will always tolerate diverse, unorthodox, and unpopular points of view, but it will not tolerate condescending or insulting remarks. When students verbally abuse or ridicule and intimidate others whose views they do not agree with, they subvert the free exchange of ideas that should characterize a university classroom. If their actions are deemed by the professor to be disruptive, they will be subject to appropriate disciplinary action, which may include being involuntarily withdrawn from the class.

Copyright Restrictions

The Copyright Act of 1976 grants to copyright owners the exclusive right to reproduce their works and distribute copies of their work. Works that receive copyright protection include published works such as a textbook. Copying a textbook without permission from the owner of the copyright may constitute copyright infringement. Civil and criminal penalties may be assessed for copyright infringement. Civil penalties include damages up to $100,000; criminal penalties include a fine up to $250,000 and imprisonment.

Copyright laws do not allow students and professors to make photocopies of copyrighted materials, but you may copy a limited portion of a work, such as an article from a journal or a chapter from a book for your own personal academic use or, in the case of a professor, for personal, limited classroom use. In general, the extent of your copying should not suggest that the purpose or the effect of your copying is to avoid paying for the materials. And, of course, you may not sell these copies for a profit. Thus, students who copy textbooks to avoid buying them or professors who provide photocopies of textbooks to enable students to save money are violating the law.

Plagiarism and Cheating

Plagiarism is the presentation of someone else’s work as one’s own. Recently, the Internet has complicated the picture. Getting something from the Internet and presenting it as one’s own is still plagiarism. Copying another student’s paper or a portion of the paper - is usually called “copying”. Neither plagiarism nor copying will be tolerated. Should a faculty member discover that a student has committed plagiarism, the students will receive a grade of ‘F’ in that course and the matter may, if necessary, be referred to the TAMIU Honor Council for possible disciplinary action.

Students with Disabilities

Texas A&M International University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal education opportunity. It is the student’s responsibility to register with the Disabilities Services Coordinator located in the Student Counseling Center and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

Safety and Security - You are the Difference

Your safety and security are of prime concern here at Texas A&M International University, and the University police department work hard to ensure the campus is a safe place to live, learn, work and play. TAMIU is not, however, exempt from crime. To be safe and secure, you must take common sense precautions. Be alert and aware of those around you; look out for the safety of others. Do not leave valuables unattended; do not attempt to touch or interfere with our wildlife.

Student Responsibility for Dropping a Course

It is the responsibility of the STUDENT to drop the course before the drop date. Faculty are not responsible for dropping students who suspend class attendance.

Final Examination

The University requires all final Examinations be given on the day specified.

Course Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
<th>Assignments</th>
<th>Learning Objective</th>
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<td></td>
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<td>Reading: Chapter</td>
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<tr>
<td>1</td>
<td>8/27</td>
<td>Introduction/An Overview of Business Intelligence, Analytics, and Decision Support</td>
<td>1, 3</td>
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<tr>
<td>2</td>
<td>9/3</td>
<td>Foundations and Technologies for Decision Making</td>
<td>1, 2, 3</td>
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<tr>
<td>3</td>
<td>9/10</td>
<td>Data Warehousing</td>
<td>Project Ideas</td>
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<tr>
<td>4</td>
<td>9/17</td>
<td>Business Reporting, Visual Analytics, and Business Performance Management</td>
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<td>5</td>
<td>9/24</td>
<td>Techniques for Predictive Modeling</td>
<td>1, 2, 3</td>
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<td>10/8</td>
<td>Project Proposal Presentation</td>
<td>Project Proposal</td>
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<td>10/15</td>
<td>Chapters 1, 2, 3, 4, 6</td>
<td>Midterm Exam</td>
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<td>10/22</td>
<td>Data Mining</td>
<td>1, 2, 3</td>
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<td>9</td>
<td>10/29</td>
<td>Web Analytics, Web Mining, and Social Analytics</td>
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<td>10</td>
<td>11/5</td>
<td>Model-Based Decision Making: Optimization and Multi-Criteria Systems</td>
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<tr>
<td>11</td>
<td>11/12</td>
<td>Automated Decision Systems and Expert Systems</td>
<td>1, 2, 3</td>
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<td>12</td>
<td>11/19</td>
<td>Big Data and Analytics</td>
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<tr>
<td>13</td>
<td>11/26</td>
<td>Project Presentation</td>
<td>Project Report Final</td>
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<td>14</td>
<td>12/3</td>
<td>Thanksgiving Holidays</td>
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<tr>
<td>15</td>
<td></td>
<td>Chapters 1, 2, 3, 4, 5, 6, 8, 9, 11, 13</td>
<td>Final Exam</td>
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THE INSTRUCTOR RESERVES THE RIGHT TO MAKE CHANGES TO THIS SYLLABUS AS NEEDED AND WITH NOTIFICATION TO STUDENTS

JUSTIFICATION:

Modernization of the existing BBA in MIS Program to include a Data Analytics component, whereby students will learn various state-of-the-art techniques to compile and analyze data from various organizations and from the cloud. The goal of these analyses will be a better understanding of issues that can be used to improve the quality of goods and services in organizations, and the productivity with which those goods and services are generated and delivered to customers.