BASIC BUSINESS ANALYTICS: TOOLS
SCMS 3711-003
Spring 2016
3.0 Credit Hours

Instructor: Dr. Mehdi Amini, Ph.D.
Phone 1: 901/678-2470
Phone 2: 901/678-2667
Email: mamini@memphis.edu
Class: T – R 2:40 – 4:05 PM
Office: FCBE 229
Office Hours: T – R 4:00 – 5:30 PM

Course Overview:

With a focus on critical thinking, an introduction to predictive and prescriptive analytics methods and software for analysis and interpretation of common business decisions. Predictive analytics includes regression, time series analysis and data mining. Prescriptive analytics focuses on linear and network models. Also, the course includes waiting line systems and computer simulation modeling.

Course Objectives:

- Developing a knowledge base required for business analytics.
- Enhancing tool and skill base for application of modeling and analytical tools to real-world managerial decision making.
- Applying managerial decision-making technologies.
- Improving the critical-thinking process.
- Enhance Excel skills to become more marketable to employers.

Pre-Requisites/Co-Requisites:

The prerequisite for this course is SCMS 2710 or MATH 1530. If you don’t have this co-requisite, you may be administratively dropped. A co-requisite check will be done once the first class roll has been issued. This check will not be completed until after the add-period.
If you do not have the required co-requisite, it is your responsibilities to clear the situation during the official add-period.

**REQUIRED TEXTBOOK & COPYRIGHTED LECTURES PP SLIDES:**


**PROFESSIONAL BA ORGANIZATIONS’ WEBSITES:**

- Institute for Management Science & Operations Research (INFORMS)  
  [http://www.informs.org](http://www.informs.org)
- WWW for Operations Research & Management Science (Encyclopedia)  
- Management Science page:  
  [http://www.mansci.strath.ac.uk/links.html](http://www.mansci.strath.ac.uk/links.html)
- OR/MS: The most current articles  

**LOCATION OF THE COURSE MATERIAL:**

- **TEXTBOOK:**
  
  - Website: [http://www.cengagebrain.com](http://www.cengagebrain.com)
  - To access the textbook website, you need a unique access code, listed on the back of the yellow note within the CD pocket of your textbook. The website includes material related to each chapter is organized in a related chapter file. Each chapter material includes: PowerPoint slides, Excel workbooks, tutorial(s), etc. To facilitate your learning, I encourage you to get acquainted with the way chapters’ material organized in the textbook website.

- **The U of M COURSE WEBSITE: eCourseware**
  
  - Website: [https://elearn.memphis.edu/](https://elearn.memphis.edu/)
  - The website is organized to include:
    - Student Group Discussion Boards.
    - Lecture PP slides.
    - Homework assignments.
    - Excel data files that you will need to download for homework.
- Course activities/announcements.
- Other course documents for download.

**COURSE ACTIVITIES EVALUATION:**

<table>
<thead>
<tr>
<th>Main Activity</th>
<th>Sub-Activity</th>
<th>Percentage Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Pop Quizzes</td>
<td>In-class &amp; online</td>
<td>15%</td>
</tr>
<tr>
<td>Group BA Articles/Videos</td>
<td>Discussion &amp; Collection</td>
<td>10%</td>
</tr>
<tr>
<td>Group HW Assignments</td>
<td>Discussion &amp; Collection</td>
<td>15%</td>
</tr>
<tr>
<td>Exams</td>
<td></td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Exam I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exam II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exam III or Final</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comprehensive</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

**FINAL GRADE ASSIGNMENT:**

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>95-100%</td>
<td>A</td>
<td>77-79.99%</td>
<td>C+</td>
</tr>
<tr>
<td>90-94.99%</td>
<td>A-</td>
<td>74-76.99%</td>
<td>C</td>
</tr>
<tr>
<td>87-89.99%</td>
<td>B+</td>
<td>70-73.99%</td>
<td>C-</td>
</tr>
<tr>
<td>84-86.99%</td>
<td>B</td>
<td>60-69.99%</td>
<td>D</td>
</tr>
<tr>
<td>80-83.99%</td>
<td>B-</td>
<td>&lt; 60%</td>
<td>F</td>
</tr>
</tbody>
</table>

**STUDENTS AND STUDENT GROUPS COURSE MAIN ACTIVITIES:**

- Course activities are designed to engage students individually and in group format. The course activities include:
  - In every class session, students are expected to participate in the lecture discussions.
  - On a weekly basis, each student group is expected to collect, present and discuss newspapers and magazines articles about the use of business analytics in corporate decision making processes.
  - On a weekly basis, students will take short pop-quizzes on the main topics covered.
On weekly basis, Student Groups work on course exercises and homework assignments.

Students will take three exams. Based on each student’s request, the third exam could be partial or comprehensive.

INDIVIDUAL STUDENT BUSINESS ANALYTICS STORIES AND POLICIES:

- Every week, each student group is expected to collect, summarize, present and discuss one article/story from newspapers, magazines or an assigned paper about the use of business analytics in corporate decision making processes.

- A copy of the article and its summary report should include: (a) group number and members’ names; (b) the name of article author, source name, date and page, and (c) the bulleted key points summary made in the article.

- For grading, EACH student is expected to submit a binder including copies of the articles and summary reports on the designated date of Exam III.

- Each group member will submit a group-member evaluation form including their teammate contribution efforts in completing this assignment on the designated date of Exam III. These evaluation will be used in assigning the final credit to group members. The teammates’ evaluation form is posted on the course website.

STUDENT-GROUP HOMEWORK ASSIGNMNETS AND POLICIES:

- It will be extremely valuable to you to work on the homework assignments with your Student-Group.

- The most effective approach to learning the material and doing well on the pop quizzes and exams is to spend time working on the homework assignments. It can be easy to understand a problem when you watch someone else work it, but difficult when you do it yourself.

- To practice on the topics covered in the class, I’ll assign “Student-Group-Required Homework (SGRH),” helping individual students to gain more knowledge about the topics by working with their assigned groups.

- Homework assignments will be posted along with the lecture PowerPoints on the course website.
• We review most of these assignments in our class sessions. So, students have the opportunity to correct their mistakes before filling them in their designated binder.

• For grading, EACH student is expected to collect and submit a BINDER including FINAL solutions to the SGRHs’ in the designated date of Exam III. Please note that you can submit one binder to include: collected articles, summary stories, and homework assignments.

• Each group member will submit a group-member evaluation form including their teammate contribution efforts in completing this assignment on the designated date of Exam III. These evaluation will be used in assigning the final credit to group members. The teammates’ evaluation form is posted on the course website.

■ INDIVIDUAL STUDENT POP QUIZZES AND POLICIES:

• For each key concept and topic, an ONLINE pop quiz would be given via the eCourseware.

• These quizzes will be graded and discussed in the class sessions.

• There is NO MAKE-UP quiz.

■ THE THREE IN-CLASS EXAMS AND POLICIES:

• The three in-class exams are scheduled and administered during the class sessions on the prearranged dates.

• THERE IS NO MAKE-UP EXAMS.

• Each exam covers one of the course modules, normally including a few of the covered chapters.

• The three exams together account for 60% of each student grade.

• Your lowest score of the three will be weighted less heavily, accounting for 10% of the grade. Your two higher scores will be weighted more heavily with each accounting for 20% of the grade. The third exam is considered to be a final exam.

• Depending on each student’s circumstances or choice, the third exam (final exam) can be a partial or comprehensive exam.

• If you miss an exam you will receive a grade of zero unless you have notified the professor prior to the exam and the absence has been approved. Documentation
on the cause of the absence will be required (such as a note from your physician in the event of illness). An exam missed for a legitimate reason will be given the grade which you receive on a comprehensive final exam (Exam III).

- If you miss an exam for any reason (either excused or unexcused) you must take a comprehensive final exam (Exam III) instead of the Partial Exam III.

- If you do not miss either of the first two exams, you have the option of choosing to take a comprehensive final and dropping your lowest exam score. Your score on the comprehensive exam would replace your lowest score.

- Exams will be closed book and notes. However, you may bring one 8 1/2 x 11" sheet of paper (front and back) with formulas, definitions, etc. If you take the comprehensive final exam, you may bring up to 3 sheets.

- Graded exams will be reviewed in class. When receive, please review your exam for any possible errors in evaluation and notify the professor within 1 week. Students who are absent from class on the day exams are reviewed will be responsible for contacting the professor to review the exam.

### HARDWARE, SOFTWARE AND INTERNET REQUIREMENTS:

- You need to have access to a desktop or laptop. Having a laptop and bringing it to each class session would allow students to effectively benefit from hands-on class exercises. I encourage you all to bring your laptops to each class session.

- Your desktop/laptop should have MS Office 2010, including PowerPoint, Word and Excel.

- You need to be fresh on your MS Excel skillsets. This course uses Excel for every topic. I recommend you to review Appendix A in the textbook provides discussions about the Basics of Excels.

- There are two Excel Add-In which you need to activate within your Excel software. They are: DATA ANALYSIS and SOLVER add-in. See my instructions to activate these options at the end of the syllabus. We’ll be using these two add-in extensively.

- You need to have access to internet. This allows you to access the course website and also participate in your Student-Group Discussion Board for completing assignments and studying for pop quizzes and exams.

- You need to have MS Media Player or other players allowing you to access YouTube videos.
REQUIRED MICROSOFT EXCEL SKILLS & ADD-INS:

This course relies heavily on computer applications for solving managerial problems and applications. To accomplish this, we’ll be using the following software: (a) Excel Data Analysis add-in; and (b) Solver.

1. **Excel Data Analysis Add-In:** The application we will use throughout the course is Microsoft Excel. For this reason ISDS 2749 is a prerequisite for this course and you are expected to have a working knowledge of Excel. You should already know how to do basic tasks in Excel, such as:
   - Entering formulas into cells.
   - Using cell addresses to reference other cell values.
   - How to create charts and graphs.

If you do not have the basic Excel skills or familiarities with the statistical functions and the other three applications, you would need to spend some time before the beginning date of the course to brush up your these skills to get up to speed.

The textbook includes: (i) Appendix A presenting Basics of Excel; and (ii) each chapter has detailed discussion about using Excel for different statistical analyses and other software for solving optimization, decision theory, simulation, forecasting, queuing and inventory management problems.

2. You may also install a free software system called *Analytic Solver Platform for Education* and *XLMiner*. This is an integrated system with descriptive, predictive and prescriptive business analytics capabilities.

MICROSOFT EXCEL ADD-INS & ALTERNATIVE SOFTWARE INSTALLATIONS:

1. **Excel Data Analysis Add-In:** Excel comes with a number of “add-ins” that the user can choose to install or not install, and a “standard installation” of Excel does not include all the available add-ins. We’ll be using the Excel Add-ins, “Data Analysis.” If you are planning to use your laptop/desktop, you may need to do the following. When you are in Excel environment, click on the Microsoft Logo located at the top-left corner of your screen. At bottom of the drop-down menu, select “Excel Options.” On the left side of the Excel Options drop-down menu, select “Add-Ins.” A list of Add-Ins would appear in a drop-down menu. Select the following add-ins: *Analysis ToolPak* and *Analysis ToolPak – VBA Add-in*. Next, click on the Go at the bottom of the drop-down menu. This would allow *Data Analysis* add-in to be installed on your laptop/desktop. After installation is completed, you may locate *Data Analysis* add-in as follows: Click on Data tab at the top of Excel worksheet. You may see the add-in in the *Analysis* option. This
option allows you to conduct all statistical analyses required for the course.

2. An alternative to MS Excel are Analytic Solver Platform for Education and XLMiner software which you may download free-of-charge. Stepwise installation guide for this software is provided in the last page of your textbook.

■ STUDENT ATTENDANCE AND PARTICIPATION POLICIES:

- Maximum attendance and participation in the course activities are critical for the following reasons:
  - Attendance are recorded.
  - The technical nature of the course allows learning during the class sessions more effectively, saving you significant post-class study hours.
  - A substantial portion of this class is intended to foster learning through participation and discussion.
  - Your attendance and participations contribute toward your better performances in the pop quizzes and exams.
  - Every course and class sessions activities are credited toward your final grades.

■ ACADEMIC INTEGRITY, CLASS CONDUCT AND PRE-REQUISITES:

Students are expected to familiarize themselves with the guidelines outlined on the website of the Office of Student Judicial and Ethical Affairs (http://saweb.memphis.edu/judicialaffairs) and to behave accordingly. Any violations of academic integrity will be reported to the University's authorities. The University has strict codes concerning cheating (see the Academic Misconduct section of the Student Handbook). Compliance with University code is required and will be strictly enforced.

**WARNING:** A prerequisite and upper division check will be completed once the first class roll has been issued. You must meet the following requirements to be enrolled in any 3000-4000 level business courses. Any student seeking a degree in the Fogelman College of Business must:

1. Have completed all required lower division Business Administration courses with a minimum grade of “C” (2.0) in each.
2. Have a minimum quality point average of 2.25 (ACCT major 2.5) in all required lower division business courses and MATH 1312.
3. Have accumulated 55 hours of course work including the required 9
semester hours of English. Non-Business majors must have junior or senior standing and have met specific prerequisites of courses.

If you have not met these requirements, it is your responsibility to correct the situation during the official add-period. If you have not met these requirements and have not corrected the situation, you may be administratively dropped.

CLASSROOM CONDUCTS:

1. Please arrive on time.
2. Don’t leave before I dismiss the class.
3. Turn-off your cells during the class sessions.
4. Bring your laptop to each class session.
5. No Internet browsing unless it is permitted for a class exercise.

STUDENT SERVICES:

Please access the FCBE Student Services page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance

BBA DEGREE PROGRAM LEARNING OUTCOMES:

The learning outcomes for this degree program are located on the following URL. Notice that Goals indicate Learning Outcomes for the degree program. The objectives under each learning outcome indicate what must be done to reach the learning outcome. Faculty members in the Fogelman College developed these learning outcomes and periodically assess students to determine the level that the learning outcomes are being met. URL: http://www.fcbeassessment.net/LearningOutcomes/BBADegreeLearningOutcomes.pdf

FREE TUTORIAL SERVICES:

Free tutorial services are available on the second floor of the Fogelman College of Business and Economics building throughout the week days. For more information, please contact the tutorial office.

COURSE SCHEDULE:

The schedule presented in this syllabus is a tentative outline for the course. We will
make a reasonable effort to adhere to this schedule. But you should know that I reserve the right to alter this calendar as circumstances may dictate. All changes will be announced in class. Students not attending class are responsible for obtaining this information. Each session is described by the topic, related chapter in the textbooks, lecture number, lecture topic and Required Student-Group Homework (RSGH) homework assignment and due dates. The reading and exercise assignments are included within the lecture notes distributed each week.

- **Abbreviations used in the course schedule:**
  - CH: Refers to Chapter in the textbooks.
  - TB: Refers to the course Textbook.
  - HW: Refers to Student-Group-Required Homework.
  - TBA: To Be Announced in the class and posted on the course website.
# Business Analytics: Tools
## SCMS 3711

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Topic</th>
<th>Textbook Chapter</th>
<th>PP Lecture</th>
<th>HW Assignment</th>
<th>HW Assignment Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>T 01/19</td>
<td>Introduction to Business Analytics</td>
<td>TB CH 01</td>
<td>Lecture 01</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>You need to Review: Chapters 2 &amp; 3 (required in SCMS 2710) &amp; Appendix A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>R 01/21</td>
<td>Linear Regression: Simple Linear Regression Model</td>
<td>TB CH 04: Sections 1 – 3</td>
<td>Lecture 02</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>03</td>
<td>T 01/26</td>
<td>Linear Regression: Simple Linear Regression Model</td>
<td>TB CH 04: Sections 1 – 3</td>
<td>Lecture 02</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>04</td>
<td>R 01/28</td>
<td>Linear Regression: Multiple Linear Regression Model</td>
<td>TB CH 04: Sections 4 - 6</td>
<td>Lecture 02</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>05</td>
<td>T 02/02</td>
<td>Linear Regression: Multiple Linear Regression Model</td>
<td>TB CH 04: Sections 4 - 6</td>
<td>Lecture 02</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>06</td>
<td>R 02/04</td>
<td>Linear Regression: Nonlinear Regression Model</td>
<td>TB CH 04: Section 7</td>
<td>Lecture 02</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>07</td>
<td>T 02/09</td>
<td>Linear Regression: Model Fitting</td>
<td>TB CH 04: Section 8</td>
<td>Lecture 02</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>08</td>
<td>R 02/11</td>
<td>Time series Analysis &amp; Forecasting</td>
<td>TB CH 05: Sections 1 - 3</td>
<td>Lecture 03</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>09</td>
<td>T 02/16</td>
<td>Time series Analysis &amp; Forecasting</td>
<td>TB CH 05: Sections 4 - 5</td>
<td>Lecture 03</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>10</td>
<td>R 02/18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>T 02/23</td>
<td>Exam I: Review Chapters 1, 4 &amp; 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exam I: Chapters 1, 4 &amp; 5 (Lectures 01-03)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>You need to Review: Chapter 7 – Spreadsheet Models</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>R 02/25</td>
<td>Linear Optimization Models</td>
<td>TB CH 08: Sections 1 - 2</td>
<td>Lecture 04</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>13</td>
<td>T 03/01</td>
<td>Linear Optimization Models</td>
<td>TB CH 08: Sections 3 - 4</td>
<td>Lecture 04</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>14</td>
<td>R 03/03</td>
<td>Integer Linear Optimization Models</td>
<td>TB CH 09: Sections 1 - 3</td>
<td>Lecture 05</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>15</td>
<td>T 03/15</td>
<td>Integer Linear Optimization Models</td>
<td>TB CH 09: Sections 4 - 6</td>
<td>Lecture 05</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Spring Break: Monday-Sunday, March 7-13</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>R 03/17</td>
<td>Network Optimization Models</td>
<td>PP Slides</td>
<td>Lecture 06</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>17</td>
<td>T 03/22</td>
<td>Network Optimization Models</td>
<td>PP Slides</td>
<td>Lecture 06</td>
<td>TBA</td>
<td>TBA</td>
</tr>
<tr>
<td>18</td>
<td>R 03/24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exam II: Review Chapters 8 Through 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Date</td>
<td>Section</td>
<td>Chapter</td>
<td>Lecture</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------</td>
<td>-----------------</td>
<td>---------</td>
<td>---------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>R 03/31</td>
<td>Monte Carlo Simulation Models</td>
<td>TB CH 11 Sections 1 – 2</td>
<td>Lecture 07</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>T 04/05</td>
<td>Monte Carlo Simulation Models</td>
<td>TB CH 11 Sections 2 – 3</td>
<td>Lecture 07</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>R 04/07</td>
<td>Monte Carlo Simulation Models</td>
<td>TB CH 11 Sections 4 – 5</td>
<td>Lecture 07</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>T 04/12</td>
<td>Decision Analysis Models</td>
<td>TB CH 12 Sections 1 – 2</td>
<td>Lecture 08</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>R 04/14</td>
<td>Decision Analysis Models</td>
<td>TB CH 12 Sections 3 – 4</td>
<td>Lecture 08</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>T 04/19</td>
<td>Decision Analysis Models</td>
<td>TB CH 12 Sections 5 – 6</td>
<td>Lecture 08</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>R 04/21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Exam III: Review Chapters 11 & 12**

<table>
<thead>
<tr>
<th></th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>T 04/26</td>
</tr>
</tbody>
</table>

**Exam III: Chapters 11 Through 12 OR Comprehensive Exam III: Chapters 1, 4-5, and 7-12**

**LAST DAY OF CLASSES: APRIL 27, 2016**

**STUDY DAY: APRIL 28, 2016**

**EXAM III REVIEW: 1:00 – 3:00 PM**
Dr. Mehdi Amini, Ph.D.

Short Bio

Dr. Amini is the George Johnson Professor of Supply Chain and Operations Management in the Fogelman College of Business and Economics (FCBE), at The University of Memphis. He holds Affiliate Professorship in the School of Industrial Engineering and Management, at the Royal Institute of Technology, Sweden. He is also a Guest Professor in the Division of Business Administration and Industrial Engineering, at the Luleå University of Technology, Sweden. He serves as Associate Director of FedEx Center for Supply Chain Management and Director of the Enterprise Simulation and Optimization Lab (eSOL), at The University of Memphis. He held an Affiliate Professorship at the Luleå University of Technology, Industrial Marketing, Sweden, from 2009 to 2012. Also, he served as Director of FCBE Master Programs from 1994 to 1996.

Dr. Amini primary teaching areas are supply chain management, operations management, sustainable enterprise and business analytics. He has been teaching in the undergraduate, Professional MBA, Executive MBA, Customer-Driven MBA, and Ph.D. programs in United States and countries in Europe, Africa, and Middle East.


Dr. Amini has received several millions dollars of funding from institutions within the private and public sectors to support different research projects. Dr. Amini has been involved in corporate research, consulting, and executive educational programs for more than two decades. He has received several university awards for his teaching, research, service and outreach efforts.

Dr. Amini holds a BA in Business Administration from The University of Tehran. He received his MBA degree in Production Operations Management from The University of North Texas, USA, and MS and Ph.D. degrees in Operations Research from Southern Methodist University, USA.