Instructor: Dr. Audhesh Paswan
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e-mail: paswana@unt.edu
Office: BLB 201A
Office Hrs: MTW 11:00 - 12:00 PM (or by appointment).

PREREQUISITES: MKTG 5150 and DSCI 5010 (may be taken concurrently). DSCI 5180 is recommended.

“Use of advanced marketing research and analytics in making marketing decisions (e.g., segmentation, targeting, positioning, marketing planning, profitability management, and assessing and ROI of marketing campaigns). Emphasis is on using advanced qualitative and quantitative analysis techniques. Enhances students' knowledge and skills in data-based decision making, advanced qualitative and quantitative analysis, multivariate statistics, and marketing intelligence in the context of marketing applications. Uses hands-on experiential learning methods to impart and strengthen the required skills and knowledge.” 2015-2016 Graduate Catalog

REQUIRED BOOK:

COURSE DESCRIPTION:

Analytics has been defined differently by different people.

Oxford dictionary defines it as “The systematic computational analysis of data or statistics. Information resulting from the systematic analysis of data or statistics….”

Another defines analytics as “the analysis of data, typically large sets of business data, by the use of mathematics, statistics, and computer software… the patterns and other meaningful information gathered from the analysis of data.”

A third one defines it as “the discovery and communication of meaningful patterns in data. Especially valuable in areas rich with recorded information, analytics relies on the simultaneous application of statistics, computer programming and operations research to quantify performance. Analytics often favors data visualization to communicate insight.”

A fourth one - "Analytics is the process of obtaining an optimal and realistic decision based on existing data."

However, these definitions have the following common themes – decision making, information, data, statistics, analyses, and pattern. Specific examples of areas within analytics include predictive analytics, enterprise decision management, retail analytics, store assortment and stock-keeping unit optimization, marketing optimization and marketing mix modeling, web analytics, sales force sizing and optimization, price and promotion modeling, predictive science, credit risk analysis, and fraud analytics. Since analytics can require extensive computation (see big data), the algorithms and software used for analytics harness the most current methods in computer science, statistics, and mathematics.
This is what this course is about. It will concentrate on application of models (primarily statistical), frameworks, decision trees, and related concepts/tools to segment, position, estimate market demand, and other marketing mix decision areas. It will use the methods and tools for the identification of sources of uncertainty in the market place, the identification of sources of marketing information, and the state-of-the-art data analyses techniques. The perspective taken will be that of a decision-maker or practitioner in a marketing function and the use of research for decision making. During this process students will learn why, how and when to collect data, types and sources of data (primary and/or secondary), methods for collecting these data, data analysis techniques with special emphasis on quantitative models, and translation of data into information for effective decision-making.

Decision-making involves making predictions about the future and a key element of all decision-making is the uncertainty associated with it. In other words, whenever we make any decision about anything we probably will not know whether the decision is right or not, until we implement the decision and get the results. So how do we predict things? For example, how are consumers going to behave tomorrow? How many units (or dollar value) are we going to sell? What profit are we going to make in the next quarter or year? Or what effect will a change in advertising copy have? The answer lies in Market Intelligence, information, and data.

This is where this course comes in. Students will learn the basics of marketing research, the types and sources of primary and secondary data, methods for collecting data (including a brief introduction of data gathering instruments such as questionnaires), the measurement scales, basic sampling and data analysis techniques. This class will concentrate on data analysis techniques with particular emphasis on a wide variety of quantitative and statistical models used for marketing decision-making.

I want to emphasize that this class is about marketing (and business) decision-making using data/information, and quantitative models. So numbers, statistics, calculations, and computations are an integral part of this course. In addition, you will have to deal with uncertainty and make decisions under uncertainty. During this process you will have to collect and use data and information, analyze data, interpret the results, and present your findings in writing and orally. For data analysis you will learn and use SPSS-statistical software.

Note: This is a graduate course and you are required to be involved in class discussions and projects in a significant manner.

COURSE OBJECTIVES:

This course is designed to introduce the students to the use of information/ data and quantitative models in decision-making. Stress will be on learning by application using projects. In other words, projects, assignments and cases will be pivotal for learning. In addition to knowledge about how to do a market research, this class is also designed to help students cope with uncertain situations faced by managers in the industry. Specifically, you will have an opportunity:

1. To understand the role of information, marketing research and its processes, especially in the context of managerial decision-making. You will be exposed to some common marketing decision problems and use decision-making frameworks, tools and techniques to aid decision-making, and data/information needed for the application of these tools and techniques. You will also use some commonly used data analysis techniques (using SPSS software and proprietary software accompanying your book).
2. To become familiar with the stages of a typical MR project - problem formulation, research design, measurement scaling, questionnaire design, data collection and analysis, and presentation of findings.

3. To handle uncertain decision making situations and make decisions under uncertainty with imperfect and incomplete data/information. You will learn that decision-making is invariably related to uncertainty.

4. To get a working knowledge of marketing research using projects. This involves using all aspects of marketing research including computer based statistical package.

5. To perform and interpret basic and advance analyses using SPSS software (e.g., descriptive statistics, and basic tests of differences and associations; some of the multivariate techniques like factor, cluster, discriminant analysis; techniques such as perceptual mapping, and other proprietary software for determining advertising budget, etc.).

6. To put together a Research report with an emphasis towards using statistical models for decision-making.

PHILOSOPHY AND EXPECTATIONS:

My expectation from this class (i.e., you and I) is captured in one of my favorite quotes from a fortune cookie at a Chinese Restaurant:

“By asking for the impossible we obtain the best possible.”

This course is difficult, challenging and will stretch you to your limits. However, with the right attitude and hard work (on your part), you can make the experience intrinsically rewarding and fulfilling. You can even make the experience fun for yourself. Remember, only you can do it. As regards my contribution, I can promise you that I shall give you my best. Of course, I also expect the best from you. This is the basic underlying philosophy behind this class (and for other classes and may be even life in general). Nothing else is worth it.

OTHER IMPORTANT INFORMATION:

Required Software: You will use SPSS for Windows for testing some of the models commonly used in marketing and business. You will also use software packages such as Excel, Power-point, and Word (or other equivalent packages).

The “S” drive: The “S” drive (the folder S:\paswan\mktg5250) in the student labs will be used to disseminate important, correctly formatted documents to the class. Contents may be conveniently copied (dragged and dropped) onto your own disk.

Computer / labs: The BLB Computer Labs are on the third floor of the BA building (BA 333). There are several other campus locations that have labs from where you may access the software necessary for this class. You will need to use SPSS for this class and therefore you must have access to a computer.

Calculators: This is a research class and calculations are an integral part of this class. Students are expected to carry a calculator and be prepared to use it at all times.
CLASS POLICIES:

**Academic Honesty**: Unless otherwise stated, all assignments and exams require individual effort. The minimum penalty for any form of cheating on any exam or assignment will be a zero score on that exam for the helped & helper. Of course, it could be much worse than that! Individual assignments that look too "similar", in my judgment, will be treated as done with unfair consultation.

**Class Conduct**: You will soon graduate and head out into the business world. In fact, some of you may already be in a business environment. Like every other profession, business and marketing professionals are also expected to function in a professional manner. In order to do well later on in your industry role, it would be a good idea to start practicing professional behavior right here, right now, and in this class. After all practice makes one perfect. Therefore, professional conduct is expected. Disturbing class proceedings in any manner is not acceptable-

- Please do not sleep, read newspapers, eat, drink, chew gum etc.
- Please do not make a habit of sauntering into the class late or leaving the class early. It is rude and it disturbs others. If you must do so (in an exceptional case) please let me know in writing prior to class or after the class.
- Please make sure that your cell phones, PDAs, and other electronic communication devices are turned off.

To recap, please adopt a "professional" attitude toward this class, your colleagues, and all of your college experience. Fulfill your responsibilities and accomplish your tasks with pride. Employers are seeking individuals who are motivated and self-disciplined, especially when competing with many others for a limited number of opportunities. Excuses do not impress anyone, or get the job done, and hence will not help you either in class or in your work world. Only results and outcomes matter. While in college, take advantage of the opportunities presented to you, participate in professional activities, read (Newspapers, journals, and business literature), and more important have a positive attitude towards learning and knowledge. What you learn (knowledge, skills, and habits) here will help you in the future.

**ADA Compliance**: The College of Business Administration complies with the Americans with Disabilities Act in making reasonable accommodation for qualified students with disability. If you have an established disability as defined in the Americans with Disabilities Act and would like to request accommodation, please see me as soon as possible. My office hours and number are shown on this syllabus.

**ATTENDANCE**: Attendance will be taken. Please do not show up more than 10 minutes late for a class and definitely do not leave in the middle. You may be marked absent in either case. If you come in after I have finished calling rolls, it is your responsibility to contact me at the end of class. I will do so at my discretion. Sauntering into the class late or leaving the class early is also rude and it disturbs others. If you must do so (as an exception) please let me know in writing prior to class or after the class.

Any person who is absent for two or more classes will forfeit all doles such as bonus points, extra credits, and curves etc. on any exams or assignments. These penalties for absences may make it quite difficult to receive a good grade in this class. Doctor certificates or University excuses etc. will not be accepted and we must live within these specifications. Students will occupy the same seat from the second session onwards.

In addition, attendance is important because you must be present to participate. Because this is a graduate class, part of learning comes from being in class, interaction with your colleagues, and participation in the class discussion. Participation means that you have read
the day’s assignment and you have prepared for the class. Participation is getting involved in class discussion, sharing your thoughts, experiences and views in the classroom.

IMPORTANT ADMINISTRATIVE DATES:

It is the student’s responsibility to keep track of administrative dates and initiate the required paperwork for drops etc. If you withdraw from the class, it is your responsibility to remove your name from the class rolls. If your name is not removed then you may receive an ‘F’ for the course at the end of the semester.

GRADING:

The points for this semester are allocated as follows (revised):

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Exam I</td>
<td>100</td>
</tr>
<tr>
<td>Research Project I and II (100 points each)</td>
<td>200</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>

Exams and Test will primarily contain essay questions. I believe that to succeed in the business world language skills are as important as your analytical and quantitative skills. All class work is fair game. The exams are designed to test the depth and the breadth of your knowledge. It is not a good idea to concentrate on a few selected topics. Students are responsible for all class lectures, including material not covered in the text. It is important that students read the assigned chapters along with the relevant cases before they come to class. The class session would primarily be devoted to discussion and application. It is also advisable that students get into the habit of acquiring general news through TV or newspaper, and business news through business magazines (e.g., Forbes, Business Week etc.) and journals (e.g., Journal of Marketing, Harvard Business Review etc.).

Usually, exams will not be reviewed in class. Occasionally, I may make an exception to this policy, depending upon my assessment of class needs. You may meet with me during office hours (or by appointment), if you wish to discuss your test.

In the preparation of exams, all possible care will be taken to avoid typographical and other errors. The instructor will have the sole discretion in excluding test questions that may contain inadvertent errors. Also, the instructor may choose to compensate for test questions that a vast majority of the students (at least 80% of the class) answer incorrectly. Again, this matter is dependent solely on the discretion of the instructor. If you disagree with any type of scoring in a test, please come by and see me during my office hours (or meet with me by appointment) and bring along a written complaint. In the written note, you may explain your position, and the basis of your contention. No requests for reviews or complaints will be entertained after two class meetings from the day a test score is announced.

Some key points:
- It is mandatory that students take all tests and exams.
- No makeup tests or exams will be administered.
- Under no circumstances tests or exams will be administered to one (or few students) separately on a day different from the scheduled dates.

Research projects are important parts of this course. Appropriate level (expected from a graduate student) of input, both qualitative and quantitative is essential. If you have a project of your own, please see me as soon as possible. For the research projects (I and II), students will need to understand the marketing problem/question (after a brief from a client), collect
secondary data, define the marketing and research problem, design a research project including questionnaire, collect and analyze data using SPSS statistical packages, prepare a report and present the findings (written and oral). This is followed up by preparation of a marketing/communication plan, and hopefully implementing the plan.

The projects will need significant work outside the classroom. This is in addition to the time spent on class preparation. These projects would require students to think and make decisions on their own. Students will be expected to make decisions under uncertain circumstances and with imperfect and incomplete data/information. The instructor will only aid in decision-making and not make the decision for the student.

These are group projects and students must learn to work in a group to accomplish certain goals. After all, it is an essential part of business management. Students will form their own group. During the semester the group members will evaluate each other on a regular basis. I may rely on these evaluations in case a dispute occurs between group members. I also allow the group to throw out a non-contributing, non-performing, and/or disruptive group member/s.

Language is an important aspect of a project report. The rationale is that if you cannot communicate your ideas effectively, there is little chance of it getting accepted, used and rewarded. While presentation styles may differ across students, it is expected that all students use appropriate and correct language. Please make sure that you take care of grammar, spelling, sentence formation, etc., while preparing your report. One point will be deducted for each grammar and spelling mistake.

Due dates for completing various tasks and projects have been indicated in the ‘Tentative Schedule’ section. Adherence to these dates is absolutely essential (see enclosed schedule). Every 24-hour delay beyond the assigned due date and time will result in a deduction in the project grade for that project only as per the stepwise procedure outlined below:

1. Project submitted on or before the due date and time you can earn a maximum of 100%.
2. After the due date/time, but within the next 24 hours (1-day block) reduces the maximum to 75% (Assigned points for the project = actual points in % x 0.75).
3. Subsequent (2nd day block) 24 hours reduces the maximum to 50%.
4. Reports submitted within the next 24 hours (3rd day block) reduces the maximum to 25%.
5. After that I will assign zero (0) points for the project.

LETTER GRADES:

As a rule there will be no curving. If I feel the need to curve, it would be done at the end of the semester after all the Exams and Projects points have been compiled and summated. No letter grade will be assigned for individual exam or project. Letter grades will be assigned only after summating (totaling) the points for all the Exams and Projects. This summated (or total) point will then be used for assignment of letter grades for the course as per the following scale:

90+    = A  = "Excellent, above and beyond what was expected (the class average)."
80-89  = B  = "Good, you did what you were expected to do"
70-79  = C  = "Passing, merely satisfied the bare minimum requirements"
60-69  = D  = "Failing"

This is not a legal contract. It is only an outline for this course in terms of its objectives, expectations, tasks and activities, schedule of classes, and assessment and evaluation criteria. We will try to adhere to this as far as possible. However, depending upon the need of the class, the instructor reserves the right to change these and other policy requirements included in this document and announced in class.
TENTATIVE SCHEDULE

The following schedule is tentative and may be revised. It is an overall scheme to be followed in class. Certain topics may require more time than others, and the class may deviate from the schedule occasionally. If such changes do take place, they will be announced and/or distributed in class. Revised schedules may include more or less chapters or topic areas than what has been listed below. Dates of exams are less likely to change. At any time, the most recent schedule will supersede all prior schedules.

<table>
<thead>
<tr>
<th>Week</th>
<th>Chapter</th>
<th>Comments</th>
<th>Project</th>
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<tbody>
<tr>
<td>1</td>
<td>Jan 18</td>
<td>1, 2</td>
<td>Introduction, Problem definition, Projects. Group formation, project idea</td>
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<tr>
<td>2</td>
<td>Jan 25</td>
<td>3, 4, 5</td>
<td>Research design, Exploratory research. Finalization of project idea.</td>
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<tr>
<td>3</td>
<td>Feb 1</td>
<td>6, 7</td>
<td>Descriptive and Causal Research Exploratory research</td>
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<tr>
<td>4</td>
<td>Feb 8</td>
<td>8, 9, 10</td>
<td>Measurement, scaling, questionnaire design Exploratory research</td>
</tr>
<tr>
<td>5</td>
<td>Feb 15</td>
<td>11, 12, 13</td>
<td>Sampling, sample size, field work Exploratory research</td>
</tr>
<tr>
<td>6</td>
<td>Feb 22</td>
<td>14, 15,</td>
<td>Data preparation; Descriptive statistics Exploratory research; questionnaire design</td>
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<tr>
<td>7</td>
<td>Mar 1</td>
<td>15, 16, part 17</td>
<td>Simple mental and decision models, Test of difference and association Exploratory research; Data collection</td>
</tr>
<tr>
<td>8</td>
<td>Mar 8</td>
<td>15, 16, part of 17</td>
<td>Simple mental and decision models, Test of difference and association Exploratory research; Data collection</td>
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<td></td>
<td>Mar 15</td>
<td>Spring Break</td>
<td>No class XXXXX</td>
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<tr>
<td>9</td>
<td>Mar 22</td>
<td>Exam - 1</td>
<td>Project Part I due</td>
</tr>
<tr>
<td>10</td>
<td>Mar 29</td>
<td>18, 19, 20</td>
<td>Segmentation, Targeting and Positioning Factor, Cluster, and Discriminant analysis Data analyses</td>
</tr>
<tr>
<td>11</td>
<td>April 5</td>
<td>18, 19, 20</td>
<td>Segmentation, Targeting, Positioning Factor, Cluster, and Discriminant analysis Data analyses</td>
</tr>
<tr>
<td>12</td>
<td>April 12</td>
<td>17, 18</td>
<td>Decision models, Correlations, and regressions Data analyses</td>
</tr>
<tr>
<td>13</td>
<td>April 19</td>
<td>17, 18</td>
<td>Decision models, Correlations, and regressions Data analyses</td>
</tr>
<tr>
<td>14</td>
<td>April 26</td>
<td>21, 23</td>
<td>Decision models, MDS, Conjoint, and International Research Data analyses</td>
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<tr>
<td>15</td>
<td>May 3</td>
<td>Presentation</td>
<td>Presentation; Project Part II due.</td>
</tr>
<tr>
<td>16</td>
<td>May 10</td>
<td>Final Exam</td>
<td>Final Exam (in class - 6:30-9:20 PM)</td>
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</table>

Please note: Class meets on Wednesdays, 6:30-9:20 PM, BLB 073