



School of Business and Economics

College of Professional Studies

COURSE

DAB 340 – MARKETING ANALYTICS

SPRING 2018

OVERVIEW

1. To keep in mind

Instructor: Dr. Eduardo Rodriguez

Phone: Office

E-mail: Eduardo.Rodriguez@uwsp.edu I check my email regularly. This is the best way to get in touch. Please identify in the subject line of the email the course code DAB 340

Office: CPS 416

Office Hours Mondays and Wednesdays 11:00 AM to 12:00 PM and 1:00 PM – 2:00 PM and by appointment

2. Course Description

Scope	<p>The combination of Analytics and Marketing is extremely interesting. The descriptive, predictive and prescriptive analytics techniques are possible to use for marketing decisions. The rationale behind marketing analytics is based on the development of data-driven solutions for customer understanding, product, pricing, and promotion strategies. Analytics supports organizations to deal with uncertainty during the stages of marketing strategy design and implementation.</p> <p>In this course, you will find the way to use analytics tools to marketing strategy design and implementation. The emphasis is on the understanding of how to apply the analytics tools and how to interpret results according to various problems or marketing situations.</p>
Objective	<p>This course prepares students to deal with problems in marketing using analytics capabilities. The concepts of analytics applied to marketing will be presented using spreadsheets and a wide set of numerical examples of marketing and quantitative techniques.</p>



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Mission

SBE Mission Statement: The UWSP School of Business & Economics educates and inspires students and prepares graduates for success in positions of leadership and responsibility. We serve the students, businesses, economy and people of the greater Central Wisconsin region. Our students achieve an understanding of regional opportunities that exist within the global economy. Evidence of our graduates' level of preparation will be found in their ability to:

- Analyze and solve business and economics problems
- Understand the opportunities and consequences associated with globalization
- Appreciate the importance of behaving professionally and ethically
- Communicate effectively.

3. Learning Objectives

What will you learn?

In this course you will learn:

At the end of the course, you will

- Understand, Apply and Integrate marketing and analytics concepts to improve organizations' strategies
- Demonstrate Critical Thinking, Problem-solving and Decision Making Skills for using appropriate tools and concepts
- Demonstrate selection and allocation skills for problems, tools, and solutions
- Demonstrate the ability to perform different type of analysis under various marketing problems/processes
- Explore the use of analytics methodologies for different marketing problems/processes
- Provide value to the organizations through the guide of analytics work according to the area of specialization of people, process, and technology in marketing
- Evaluate the opportunities for global competitive advantage development associated with the use of analytics applied to marketing.
- Explore the new trends of analytics capabilities to understand customers, design products, control portfolios of products and promotion, forecasting and marketing planning.



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4. Course format

The course will be taught with a combination of lectures and class discussions based on assigned readings, skill building exercises, application assignments, and group or individual case studies/company research. Students are encouraged to actively participate in class, ask questions, and stimulate the thinking of all those in the classroom. Oral presentations and written reports will also be required. The course is project driven using datasets that will be discussed during the course.

It is necessary for students to complete the assigned readings and/or other required tasks no later than the beginning of class on the corresponding due dates (see "Course Calendar"). Doing so is key to synthesizing the concepts from the lectures and the readings, performing well on the exams/quizzes, and participating meaningfully in class.

Should you disagree with anything that occurs during class or feel uncomfortable with anything related to the course please discuss the matter with the instructor as soon as possible. If the source of unease or perceived injustice occurs during a particular class session, please speak with the instructor immediately after class. If you are unable to see the instructor after class, make an appointment to do so as soon as possible. The chain of command for addressing any grievances must be followed in order as follows: The Instructor > The School of Business & Economics Chairperson > The Dean of College of Professional Studies > The Associate Vice Chancellor for Teaching & Learning.

5. Course rules

Important
academic
aspects

Attendance Policy: You will be responsible for anything that goes on in class.

Work turned in late: Late work may not be accepted. If accepted, late work will lose 25% per calendar day.

Missing Exams: There will be no make-up exams. Students who have missed one of the midterm exams with a medical or university approved excuse, and who have notified me in advance will receive a statistically estimated score based on their other three exam scores. For students who have missed more than one of the midterms, a zero will be used as the missing grade in the estimation of each missing exam. If you miss the final exam, you will receive a grade of zero for that exam.



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ADA Statement: If you feel you may need an accommodation or special services for this class, please see me or call the service at 346-3365.

Academic Misconduct: Any student caught cheating or assisting another student to cheat or allowing another student to cheat may be removed from the class and given a failing grade. The minimum penalty for cheating is a reduction in points of 200% of the value of the assignment. Academic Misconduct is defined as violating provisions of Chapter UWSP 14, Rules of the Board of Regents of the University of Wisconsin System, Wisconsin Administrative Code.

<http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf>

Technology Policy: You may not have a laptop, tablet, cell phone or any other connected device out during class.

Extra Credit: Students may be given the opportunity to earn bonus points throughout the semester. I tend to put 105 points on a 100-point exam. The Project has extra bonus points for outstanding report and presentation. The extra points are extra credit. The availability of bonus points will be based on class pace, activities, and other circumstances. There is no guarantee that bonus points will be offered. When available, bonus point opportunities will be announced publicly in class or via D2L. No bonus point opportunities will be developed for individual students. That is, any request to earn bonus points by means of an activity that has not been publicized or offered to all enrolled students will be denied. Being absent from class automatically forfeits your right to earn the bonus points that were offered on the day you were gone. Exceptions for excused absences may be made at the instructor's discretion.

Exam / Calculator / Cell Phone Policy: You will need a calculator for the exams. It will need to be either a scientific or a business calculator (keys: [yx] or [^] and [ln] or [log]). You may NOT use an online calculator or a calculator on your phone, tablet, laptop, ... You may not share a calculator with another student. You may NOT have a cell phone out of your pocket/bag during an exam. Any student violating this policy will receive a score of zero (0) for the exam.

Crib Sheet: You are allowed a note sheet for each exam. This sheet may be up to 8.5 x 11 inches with notes on only one side. It may contain formulas, definitions, and notes on how to solve problems. It may not contain example problems, answers to problems or solved problems. It should have your name at the top. These crib sheets will be turned in with the exams. Any student using extra notes, or notes not allowed will receive a score of zero (0) for the exam.



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Plagiarism

Plagiarism is seriously taken as a form of stealing. Plagiarism happens when a writer uses the words or ideas of others as if they were his/her own words. It is often unintentional (hopefully), and can be easily avoided by always acknowledging the use of another's exact or paraphrased words/ideas with a proper citation of the source. Today's plagiarism detection software programs are extremely effective and widely used as a "stage one" screening device in the process of grading written assignments; detected plagiarism will result in an automatic "failing" grade for the course.

SBE Events: For this course, you must attend two official SBE Events. One event must be before the mid-semester cut-off of Spring 2018; a second event must be before the end-of-semester cut-off of Spring 2018. If you go to extra events before mid semester, those credits will carry over into the second half of the semester.

Visit the SBE Events web site (<http://business.uwsp.edu/events>) for announcements of upcoming SBE Events.

When you attend an event, it is your responsibility to sign in with your Point Card. Attendance at SBE Events will be confirmed with automatic emails to you and updated on the SBE Events web site. Please allow a week for confirmation of attendance at events held outside the SBE, such as Career Services events.

If you have multiple courses with SBE Events requirements, it is your responsibility to make sure you have attended enough events for each course. If you have not attended enough events to cover all of your courses, your attendance will be allocated to your courses in alpha-numeric order.

I will receive reports confirming your attendance. You do not need to do anything else. I will enter the SBE Event points into D2L once at the end of the semester.

Grading

Grading will start with a traditional 90, 80, 70 scale. Grades may be curved from there at the discretion of the professor. If curved, they generally place roughly the top 25% of the students with a A or A- and roughly 75% of students with a A, A-, B+, B or B-. I will use whichever system gives students the higher grade.

Activity Points

SBE Events (2) 20 in total



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- Assignment 1 100 points
- Assignment 2 100 points
- Exam 1 100 points
- Exam 2 100 points
- Final Project 150 points
- Total 570 Points

6. Course Materials

- | | |
|----------------------|---|
| Required text | <ul style="list-style-type: none"> • Winston Wayne, Marketing Analytics: Data Driven Techniques with Microsoft Excel, 2014, Wiley, Indianapolis |
| Additional resources | <ul style="list-style-type: none"> • www.wiley.com/go/marketinganalytics • <i>Data in Excel posted on D2L</i> • <i>Sterne Jim, Artificial Intelligence for Marketing, 2017, Wiley, Hoboken NJ</i> |

7. Course Master Table Spring 2018

Lesson Date	First Class of the week Theory class - Lesson Topic	Second Class of the week Theory and review of Exercises/cases/activities
Week1 January 22	Summarizing Marketing Data Chapters 1,2,3	Pivot tables, charts and reports
Week2 January 29	Working on Pricing Strategy Chapters 4,5,6,7,8	Price optimization, Bundles, skimming the market, non-linear pricing
Week3 February 5	Forecasting Development Chapters 9,10,11,12,13,14,15	Regression and time series components: trend and seasonality. Smoothing methods andn and Neural Networks
Week4 February 12	Understanding Customers Chapters 16,17,18	Conjoint analysis, logistic regression, choices
Week5 February 19	Customer Value Chapters 19, 20, 21, 22	Lifetime customer value, Montecarlo Simulation, customer acquisition Assignment 1



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Week6 February 26	Marketing Segmentation Chapters 23, 24, 25	Cluster Analysis, classification trees Exam 1
Week7 March 5	New Products introduction Chapters 26, 27, 28	Difussion models and S models
Week 8 March 12	Retailing strategies Chapters 29,30, 31, 32, 33	Market basket a nalysis, direct marketing campaigns
Week 9 March 19	Advertising Strategy Chapters 34, 35, 36	Portfolio of promotion. Online advertisement
Week 10 April 2	Marketing research tools Chapters 37, 38, 39, 40, 41	Principal Components, Multidimensional Scaling
Week 11 April 9	Marketing Research tools Chapters 37,38, 39, 40, 41	Classification Algorithms, ANOVA Assignment 2
Week 12 April 16	Internet and Social Marketing Chapters 42, 43, 44, 45	Networks and viral marketing Exam 2
Week 13 April 23	Machine Learning in Marketing Class Notes	Course Material
Week 14 April 30	Putting all together in Marketing Strategy Class Notes	Course Material
Week 15 May 7	New Developments in Marketing Analytics Class Notes	Course Material Final Project Submission

Summary of exercises for assignments:

Assignment 1

page 80 exercises 1-6
page 106 exercise 10
page 121 exercise 5
page 132 exercise 4
page 142 exercise 2
page 156 exercise 4
page 175 exercise 2
page 211 exercise 3
page 234 exercise 1
page 239 exercise 1
page 248 exercise 2



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page 260 exercise 3

page 282 exercise 2

page 301 exercise 5

page 321 exercise 3

Assignment 2

page 337 exercise 5

page 360 exercise 2

page 374 exercise 1

page 391 exercise 4

page 411 exercise 7

page 426 exercises 5-9

page 456 exercise 1

page 468 exercise 1

page 480 exercise 2-4

page 526 exercise 1

page 558 exercise 1

page 575 exercise 3

8. Course and syllabus revisions clause

The instructor reserves the right to include additional content or to make other revisions to the course, schedule, or syllabus as necessary. These changes may occur at any time during the semester. Students will always be made aware of these changes via an in-class announcement, D2L post, email, or some combination of these.

9. Student responsibility to know what is required

Student performance will involve completion of the items listed in the “ Grading” section. These tasks will be communicated to students in class, on the syllabus, on the course calendar, and/or on D2L. Please note, all items that appear on the syllabus/course calendar are expected to be completed on time, whether or not the instructor announces them in class. It is the students’ responsibility to know what is required and where to look on the syllabus, course calendar, or D2L in order to locate the necessary information. If there are any questions, students are encouraged to email the instructor.

Students should check the syllabus/course calendar often so as to be aware of any changes. The “ Last Updated ” date is prominently displayed at the top of both of these documents. Comparing the date of your copy with that of the version available on D2L will show whether or not you are using the most recent draft. Some impromptu course points may be given without prior warning. If implement, these impromptu points will not be stated on the syllabus/course calendar. As a rule, impromptu points, when implemented, will not constitute a significant percentage of a student’s final grade (i.e., $\leq 10\%$ for each instance).



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Unless approval is granted prior to being gone, there will be no make-ups for quizzes, in-class exercises, impromptu points, or assignments that are collected on a day that a student is absent. Students are responsible for all material covered in class and disseminated through other means, regardless of their presence in class when the information was taught.

10. Participation

The key to having a great semester in this class is the informed, willing, and engaged participation of all students. You will ultimately learn more and the time spent in class will be more enjoyable if everyone participates fully. Be prepared to volunteer questions and reactions regarding information from the textbook chapters, supplementary readings, and ideas brought up during class. Successful participation is achieved through consistent, daily contribution to class discussion. Merely coming to class is not the same as participating. For this course, participation is not explicitly graded; however, it will be considered when evaluating close calls in final grades.

11. Classroom courtesy

POSITIVE LEARNING ENVIRONMENT. It is my goal to provide a safe and nurturing learning environment for all students. Therefore, breaches of classroom courtesy are defined as any behaviors that are disruptive to the learning environment. The following examples provide a foundational description of classroom courtesy:

- Displaying respect for others is required at all times. It is not required that you share the perspectives of your classmates, but rather that you do not discredit their right to have their own opinion. Expressing alternate viewpoints is important, but this should be done in a collegial manner.
- Side discussions, listening to head phones, sleeping in class, and abusive language is considered disruptive behavior.
- No shouting, no profane language, no verbal or physical threats, no intimidation of any kind.
- Not arriving to class under the influence of any alcohol or drugs

12. Reviewing & disputing examinations

Students will not be permitted to retain their past exams or review their test booklets aside from the class time allotted for this purpose. It is forbidden for students to take photographs of their



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exams or the exam debriefing PowerPoints. Students caught doing so will receive a zero on the exam.

Students can petition the instructor via email to review their past exam outside of class. Permission for these special appointments is at the instructor's discretion. If an outside exam review session is granted, the student is only permitted to read through his or her own exam, without taking notes or highlighting the book or any other study materials. No electronic devices are allowed during outside exam review sessions. The last day that students can review past exams, even by special appointment, is listed on the course calendar.

Generally, disputes involving individual exam questions are not permitted due to the bonus point opportunities built into each exam to offset possible unfairness. If there are any remaining disputes of test questions, these appeals must be hand written and submitted to the instructor by the end of class on the day the exam is reviewed.

13. Class video recordings/photographs

At no time may a student (or the professor) take a photo, video, or audio recording in a regular class session without obtaining prior approval (written or verbal) from all individuals in attendance. The only exception is administrative documentation of the examination environment. That is, Exams may be video recorded or photographed by the instructor without prior consent from students. Recordings/photographs of exams will be taken for the sole purpose of resolving any possible disputes that may arise regarding exams or academic integrity. Exam recordings/photographs will never be shared publicly. Once the record maintenance period has expired, all exam recordings/photographs will be permanently erased.

14. Academic integrity

Academic dishonesty includes misrepresentations of facts regarding the timely completion of exams and papers. If it is determined that students have inappropriately collaborated on exams or assignment or that a student has used a classmates' responses to answer an exam question or complete an assignment, failing the course is the minimal likely appropriate sanction. Likewise, failure to properly cite sources used when completing a written assignment may lead to a failing grade on the paper or in the class. Students are expected to do their own work. If it is a group assignment equal contributions are expected. Asking another person for help if you are stuck is expected, but having someone do your work or copying another student's work is NOT permitted and is considered cheating. As a scholastic matter, it is at the discretion of the instructor to determine appropriate penalties. As a University disciplinary matter, academic



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dishonestly can result in suspension from the University or other lesser penalties. Any student involved in instances of academic dishonesty, intentionally or unintentionally, has failed to uphold the academic integrity of the university and is subject to penalty. Students will always be notified via email, without delay, if they incur a penalty of any kind.

The Student Rights and Responsibilities Document includes the university policies regarding academic misconduct, which can be found in Chapter 14. A direct link can be found here: <http://www.uwsp.edu/dos/Pages/Academic-Misconduct.aspx>.

UWS 14.03 defines academic misconduct as follows: Academic misconduct is an act in which a student:

- seeks to claim credit for the work or efforts of another without authorization or citation;
- uses unauthorized materials or fabricated data in any academic exercise;
- forges or falsifies academic documents or records;
- intentionally impedes or damages the academic work of others;
- engages in conduct aimed at making false representation of a student's academic performance;
- assists other students in any of these acts.

In terms of plagiarism, please note that you must reference all sources in the body of submitted papers and on a complete reference page. Source information must be provided regardless if you are quoting or paraphrasing. The rule of thumb is anything not common knowledge must be referenced. Failure to do so will result in a failing grade or a lesser grade penalty. Be aware that UWSP subscribes to Turnitin™, a plagiarism detection service, and all cases of plagiarism will be identified. Instances of plagiarism will result in course-level consequences as well as a university disciplinary case. Using the work from another student or students from past classes is not appropriate and is considered plagiarism. Information on non-academic misconduct can be found in Chapters 17 and 18 of the Student Rights and Responsibilities Document. A link to the university's policies on non-academic misconduct can be found at <http://www.uwsp.edu/dos/Pages/Information%20for%20Students.aspx>.