



PennState

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**Syllabus for MKTG 474
MARKETING ANALYTICS**

<http://www.personal.psu.edu/jxb14/MA/>

Fall 2022

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Office hours: T/TH 9:00-10:30 or by appointment*

Course objectives:

This course will provide you with an introduction to marketing analytics. We will study various tools for generating marketing insights from data in such areas as segmentation, targeting and positioning, satisfaction management, customer lifetime analysis, customer choice, product and price decisions using conjoint analysis, and text analysis and search analytics. This will be a hands-on course based on the Marketing Engineering (Enginius) approach and Excel software, in which you apply the tools studied in class to actual business situations. You will also complete a group project in which you collect and analyze data or introduce your fellow students to a marketing analytics technique not studied in class.

Course Details:

Course materials. Lecture topics and assignments are listed under Course Schedule. The overheads used in class are available as Powerpoint and Adobe pdf files from the course website. The textbook for the course (referred to as LRB in the Course Schedule) is:

Lilien, Gary L., Arvind Rangaswamy, and Arnaud de Bruyn (2017), *Principles of Marketing Engineering and Analytics*, 3rd edition, State College, PA: DecisionPro, Inc.

You can download the relevant chapters of the textbook from the Enginius website (<https://www.enginius.biz/>). You have to purchase a license for the software for \$32.50, which will also give you access to the textbook and other materials. I will send you instructions about how to obtain the license via E-mail. Please complete your order as soon as possible.

Additional assignments (readings, exercises, software tutorials, etc.) can be obtained via the course website or from the Enginius portal.

Preparation for class. The course will be a combination of lectures, discussions, exercises, case analyses, and presentations. For each class, read the relevant materials listed in the assignment column of the course schedule, download the overheads, and complete all other assignments (see below). I expect you to attend class regularly and to take an active role in class discussions. I will monitor your attendance and participation in class discussions, and both will contribute to your course grade. At the start of the semester I will randomly assign each student to one of eight teams, and each team will analyze six cases, present one case analysis, and complete a group project. These assignments are described in more detail below.

In-class exercises. We will do several in-class exercises throughout the semester. The purpose of these exercises is to give you practice in applying marketing analytics tools to the solution of practical business problems. The in-class exercises are listed in the assignment column of the Course Schedule. You do not have to hand in anything for these exercises, but your contribution to the class discussion will count toward your participation grade.

Case discussions. We will analyze six cases over the course of the semester. One or two teams will be randomly assigned to each case and will give a 20-minute presentation of their case analysis to the rest of the class. However, all teams must analyze each case and, following the presentation(s), there will be an open discussion of the case by the entire class. All teams have to submit a 5-page, double-spaced executive summary of their case analysis to the instructor at the beginning of the class in which the case is being analyzed; the group that is presenting the case should also hand in a copy of their presentation (e.g., the Powerpoint slides).

Team project. Each team will complete a group project, which has to be presented in class. The presentation dates are listed in the Course schedule, and teams will be randomly assigned to one of the four dates. Each team should prepare a 25-minute in-class presentation. A copy of the presentation and a 5-page executive summary must be handed in to the instructor at the beginning of the class in which a team presents their project. The team project will be graded based on the quality of the oral presentation and the written materials. Team members will also rate each other's contribution to the project. Two types of topics are appropriate for the team project. First, you can apply one of the tools studied in class to a particular business problem. This will most likely involve the collection of primary data and an in-depth analysis of the data using the Enginius software. Second, you can choose a marketing analytics technique that we did not cover in class and introduce your fellow students to this technique. The presentations will start after Thanksgiving break, but you should start thinking about possible topics for your project early in the semester and talk to your instructor about ideas suitable for the project. A project proposal (3 pages maximum) is due on October 27th. The instructor will meet with each team during the first week of November to finalize the project idea.

Grading. Your course grade will be based on the six case analyses and the case presentation (60%), the group project (25%), and your attendance and participation in class, esp. during the exercises (15%). My grading policy is as follows:

93 – 100	A
90 – 92	A-
87 – 89	B+
83 – 86	B
80 – 82	B-
77 – 79	C+
70 – 76	C
60 – 69	D
0 – 59	F

Academic integrity, affirmative action & sexual harassment, students with disabilities, and Penn State values. Please see the information at the end of this syllabus for details about these issues.

Course Schedule

DATE	TOPIC	ASSIGNMENT
8/23	Course Introduction (CourseOverview.pptx , CourseOverview.pdf)	
8/25	Excel Review (Excel.pptx , Excel.pdf)	ExcelAnalysisToolPak.pdf Liquid Laundry exercise (ExcelReview-LiquidLaundry.pdf and LiquidLaundry.xlsx) IntroductionToQualtrics.pdf
8/30	Introduction to Marketing Analytics (Introduction.pptx , Introduction.pdf)	LRB Chapter 1 Allegro Exercise (Allegro (Smart Sheet).pdf , Allegro Data (Smart Sheet).xls)
9/1	Segmentation and targeting 1 (Segmentation.pptx , Segmentation.pdf)	LRB Chapter 3 Segmentation Tutorial (Enginius)
9/6	Segmentation and targeting 2 (Segmentation.pptx , Segmentation.pdf)	LRB Chapter 3 Segmentation Tutorial (Enginius) GE McKinsey Matrix Tutorial (Enginius)
9/8	Positioning 1 (Positioning.pptx , Positioning.pdf)	LRB Chapter 4 Positioning Tutorial (Enginius)
9/13	Segmentation case	ISBM (Positioning, Segmentation) Case Study (Enginius)
9/15	Positioning 2 (Positioning.pptx , Positioning.pdf)	LRB Chapter 4 Positioning Tutorial (Enginius)
9/20	Analyzing customer satisfaction 1 (Satisfaction.pptx , Satisfaction.pdf)	Fornell et al., The American Customer Satisfaction Index (available on Electronic Reserve) http://www.theacsi.org/ (explore the information on this web site, esp. under The ACSI Difference)
9/22	Positioning case	Infiniti G20 (Positioning) Case Study (Enginius)
9/27	Analyzing customer satisfaction 2 (Satisfaction.pptx , Satisfaction.pdf)	Fornell et al., The American Customer Satisfaction Index (available on Electronic Reserve) http://www.theacsi.org/ (explore the information on this web site, esp. under The ACSI Difference)
9/29	Review session 1	Review1.pdf
10/4	Satisfaction case(s)	EnvelopesSatisfactionMeasurement.pdf EnvelopesSatisfaction.xlsx PleasureBoatSatisfactionMeasurement.pdf PleasureBoatSatisfaction.xlsx

10/6	Customer lifetime value 1 (CLV.pptx , CLV.pdf)	LRB Chapter 2 (esp. pp. 59-68) Lifetime Value Tutorial (Enginius)
10/11	Customer lifetime value 2 (CLV.pptx , CLV.pdf)	LRB Chapter 2 (esp. pp. 59-68) Lifetime Value Tutorial (Enginius)
10/13	Customer choice 1 (Choice.pptx , Choice.pdf)	LRB Chapter 2 (esp. pp. 38-59), Chapter 3 (esp. pp. 100-107) Predictive Modeling Tutorial (Enginius)
10/18	Customer lifetime value case	Northern Aero (Lifetime) Case Study (Enginius)
10/20	Customer choice 2 (Choice.pptx , Choice.pdf)	LRB Chapter 2 (esp. pp. 38-59), Chapter 3 (esp. pp. 100-107) Predictive Modeling Tutorial (Enginius)
10/25	Conjoint analysis 1 (Conjoint.pptx , Conjoint.pdf)	LRB Chapter 6 (esp. pp. 178-190) Conjoint Analysis Tutorial (Enginius)
10/27	Customer choice case	Bookbinders Club (Predictive) Case Study (Enginius) QuestionsBookbindersCase.pdf
11/1	Conjoint analysis 2 (Conjoint.pptx , Conjoint.pdf)	LRB Chapter 6 (esp. pp. 178-190) Conjoint Analysis Tutorial (Enginius)
11/3	Text analysis and search analytics 1 (Digital.pptx , Digital.pdf)	LRB Chapter 8 Sentiment Analysis Tutorial (Enginius)
11/8	Conjoint analysis case	Dürr (Conjoint, Segmentation) Case Study (Enginius)
11/10	Text analysis and search analytics 2 (Digital.pptx , Digital.pdf)	LRB Chapter 8 Text analysis exercise (Ottos.pdf and Ottos.xlsx)
11/15	Review session 2	Review2.pdf
11/17	Implementing Marketing Engineering and course wrap-up (Implementation.pptx , Implementation.pdf)	LRB Chapter 9 Germann et al., Performance Implications of Deploying Marketing Analytics (available on Electronic Reserve)
11/22	Thanksgiving break	
11/24	Thanksgiving break	
11/29	Presentations (Teams 1 and 2)	
12/1	Presentations (Teams 3 and 4)	
12/6	Presentations (Teams 5 and 6)	
12/8	Presentations (Teams 7 and 8)	

ACADEMIC INTEGRITY

According to the Penn State Principles and University Code of Conduct:

Academic integrity is a basic guiding principle for all academic activity at Penn State University, allowing the pursuit of scholarly activity in an open, honest, and responsible manner. According to the University's Code of Conduct, you must neither engage in nor tolerate academic dishonesty. This includes, but is not limited to cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized possession of examinations, submitting work of another person, or work previously used in another course without informing the instructor, or tampering with the academic work of other students.

- Any violation of academic integrity will be investigated and, where warranted, corrective academic and/or disciplinary action will be taken. For every incident where a penalty is assessed, an Academic Integrity Incident Report form must be filed. The form can be found on the Smeal College Honor and Integrity website: <https://www.smeal.psu.edu/integrity>. The report must be signed and dated by both the instructor and the student, and then submitted to Monica Snyder, 202 Business Building.
- **University Policy G-9**
Once a student has been informed that academic misconduct is suspected, the student may not drop the course during the adjudication process. The Dean of the College (UP) and/or the Chancellor (campuses) or his or her representative is responsible for notifying the Office of the University Registrar when academic misconduct is suspected in a course. Any drop or withdrawal from the course during this time will be reversed. A student who has received an academic sanction as a result of a violation of academic integrity may not drop or withdraw from the course at any time. These drop actions include regular drop, late drop, withdrawal, retroactive late drop and retroactive withdrawal. Any such drop action of the course will be reversed. This drop policy may be superseded in exceptional circumstances (i.e. trauma drop). In these cases, the Office of Student Conduct or the Student Conduct designee will confer with the Dean of the College (UP) or the Chancellor (campuses) or his or her representative to determine if the drop is warranted.
University Policy G-9: <http://undergrad.psu.edu/aappm/G-9-academic-integrity.html>.

Smeal Honor Code

We, the Smeal College of Business Community, aspire to the highest ethical standards and will hold each other accountable to them. We will not engage in any action that is improper or that creates the appearance of impropriety in our academic lives, and we intend to hold to this standard in our future careers.

PLAGIARISM / COPYING

All work you submit for grading or academic credit is designed to reflect your knowledge and skill related to the course subject matter. Therefore, unless otherwise indicated, all work submitted is to be done on an individual basis. This includes but is not limited to all exams, quizzes, homework, papers, written assignments, and presentations.

Plagiarism is claiming work as your own that you have copied from another person, whether that other person knows about it or not. This includes copying from web sites without proper source citation and using homework or papers prepared by current or past students whether working as an individual or working in a group/team.

AFFIRMATIVE ACTION & SEXUAL HARASSMENT

The Pennsylvania State University is committed to a policy where all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by Commonwealth or Federal authorities. Penn State does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, gender, sexual orientation, or veteran status. Related inquiries should be directed to the Affirmative Action Office, 328 Boucke Building.

EDUCATIONAL EQUITY/REPORT BIAS

Consistent with University Policy AD29, students who believe they have experienced or observed a hate crime, an act of intolerance, discrimination, or harassment that occurs at Penn State are urged to report these incidents as outlined on the [University's Report Bias webpage](http://equity.psu.edu/reportbias/) (<http://equity.psu.edu/reportbias/>)

COUNSELING AND PSYCHOLOGICAL SERVICES STATEMENT

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

[Counseling and Psychological Services at University Park \(CAPS\)](http://studentaffairs.psu.edu/counseling/)

(<http://studentaffairs.psu.edu/counseling/>): 814-863-0395

Counseling and Psychological Services at [Commonwealth Campuses](https://senate.psu.edu/faculty/counseling-services-at-commonwealth-campuses/)

(<https://senate.psu.edu/faculty/counseling-services-at-commonwealth-campuses/>)

Penn State Crisis Line (24 hours/7 days/week): 877-229-6400

Crisis Text Line (24 hours/7 days/week): Text LIONS to 741741

Students with Disabilities

Penn State and the Smeal College of Business welcomes students with disabilities to all of its classes, programs and events. Student Disability Resources in Room 116 Boucke Building provides a vast array of services for students with disabilities according to mandates under Title II of the ADA amendments Act of 2008 and Section 504 of the Rehabilitation Act of 1973. For more information or to meet with a service provider from Student Disability Resources, contact them at (814) 863-1807 (V/TTY) or visit their website at: <http://equity.psu.edu/sdr> In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus enrolled, participate in an intake interview, and provide documentation: <http://equity.psu.edu/sdr/applying-for-services> If the documentation supports your request for reasonable accommodations, the Student Disability Resources office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early in the course as possible. Adjustments will be made based on the recommendations in the accommodation letter. You must follow this process for every semester that you request accommodations.

COMPUTER AND NETWORK SECURITY

Per policy AD20, students are prohibited from using their Penn State access account (e.g. Angel or Canvas email) for commercial use. This includes soliciting sales for class note services (Notehall, Nittany Notes, etc.). Any email incidents violating policy AD20 will be reported to the Penn State security office.

PENN STATE VALUES

The Penn State Values (<http://values.psu.edu>) are our shared ideals about how people should act toward one another, the standards to which we hold ourselves, and those beliefs we find important. While aspirational in nature, the Penn State Values articulate our ethical principles and should guide our actions and decisions as members of the Penn State community, including in this course:

- **Integrity:** We act with integrity and honesty in accordance with the highest academic, professional, and ethical standards.
- **Respect:** We respect and honor the dignity of each person, embrace civil discourse, and foster a diverse and inclusive community.
- **Responsibility:** We act responsibly, and we are accountable for our decisions, actions, and their consequences.
- **Discovery:** We seek and create new knowledge and understanding, and foster creativity and innovation, for the benefit of our communities, society, and the environment.
- **Excellence:** We strive for excellence in all our endeavors as individuals, an institution, and a leader in higher education.
- **Community:** We work together for the betterment of our University, the communities we serve, and the world.

PENN STATE HOTLINE

Students can report issues and/or ask questions via phone at 1-800-560-1637 or online at: <https://universityethics.psu.edu/penn-state-hotline>