Professor: David W. Gerbing, Ph.D.
Office: KMC 550D
Phone: 725-4767 (email works better)
Office Hours: Sunday online (before weekly homework is due), 4pm and by appointment. Each office hour serves as a regularly scheduled video conference.
Time and Classroom: online
Class Website: d2l.pdx.edu
Instructor Email: gerbing@pdx.edu

Google Hangouts Video Conference: Bookmark – URL we use all term
https://hangouts.google.com/hangouts/_/pdx.edu/gerbing

→ For me to read and respond to your emails, place 460 somewhere in the subject line.
→ Avoid D2L email because it is not real email. No response is possible outside of D2L.
→ D2L Announcements is a major forum for me to communicate with you. Make sure you are notified and pay attention to announcements as I post them.

Course Catalog Description. This course studies aspects of consumer and industrial research methodology and techniques including marketing information system design, research planning and design, questionnaire and other instrument design, sampling plan, measurement techniques, data collection sources and methods, data analysis and interpretation, report writing, etc. Perspectives are provided from the viewpoints of both a researcher and a research/information user. One primary objective of this course is to familiarize students with scientific methodology, techniques and technology that can be used to provide useful information for marketing/business decisions. Prerequisites: BA 311.

Text: The Essentials of Marketing Research by Silver, Stevens, Kernek, Wrenn, & Loudon, 4th edition, from Textbook Media, chosen because the text is a decent text and inexpensive. You can purchase the text from the publisher, including in ebook format, or from the bookstore.

Class Project: Working alone or with up to two other self-selected students, write your own brief survey (questionnaire) about a product you choose, post on the web with Qualtrics, obtain responses from other class mates or any group of available respondents, analyze the results and write-up your findings as a marketing research report. Turn in the report via D2L. If you choose to work in a group, your grade is partially dependent on a contribution score provided by your group mates. As a Portland State University student you are entitled to a full Qualtrics account. Do not use the free account available to everyone, instead use this provided link.

Here are some recent projects by students in this course: Alcohol, Apple/Android, Beer Preferences, Candy Bars, Cell Phone, Chipotle’s Restaurant, Coffee Shops, Costco, Credit and Investment, Department Stores, Disability Services, Dutch Brothers, Facebook, Footwear, Hershey, Hybrid Classes, Image Consultant, Instagram, iTunes, Mobile Phone Privacy, Music Listening, Music Streaming,
Nike/Adidas, Oreos, PC or Mac, PSU Rec Center, Phones, Playstation vs Xbox, Professors, Recycling, Smartphone, Spotify, Star Trek Reboot, Starbucks, Surfing, Sushi, The Avengers, Thriftway, Tillamook Ice Cream, Uber, Viking Basketball, Walmart

This course project is an excellent opportunity to develop a portfolio item to showcase your job relevant skills. If you want to feature your project as part of your portfolio for job applications, you may wish to work alone on the project. The choice is yours.

**Course Content:** Find the listing of weekly content on D2L under the Content tab.

This course, and its realization in similar undergraduate marketing courses in universities across the USA, includes two different but complementary types of content. First is the nature and context of marketing research. The primary source of this material is our textbook. The second and primary type of content in this course regards data analytics. These skills involve using the computer to apply statistical concepts to analyze data.

The goal of this course is for you to develop the skills needed to conduct a marketing research project in the form of a survey, a questionnaire that people fill out regarding a product of your choice. One set of needed skills to accomplish data analysis are the statistical skills taught in your eight credits of stat that are a prerequisite to this course.

In this course we focus on data analysis. One important tool of data analysis is statistics. Unfortunately, past experience teaching this course reveals that many or most students are not able to do data analysis despite previous statistics coursework. This is true even though there are no new statistical skills taught in this course beyond what has already been presented in the prerequisite statistics courses. As such, most of the instructional effort teaching this course necessarily involves the data analysis content to provide the needed skills to conduct the survey project and analyze and interpret the resulting data.

**Track ABC vs Track C:** The course provides two different tracks, of which you can self-select now or through some time after the midterm.

Track ABC for those who have the interest and/or time to apply statistical concepts to data analysis, and Track C for those who do not. Students who select Track C can only earn up to a C in the course, the key being that a C is a passing grade. Track ABC students can earn any grade up to an A depending on their proficiency of the course material. Their resulting grade is usually in the A, B or C range, but there are no guaranteed grades for either track if the required work is not complete.

All students need to complete the portion of the course addressed to marketing research content as provided by the textbook. The distinction between Track ABC and Track C content follows from the data analysis topics in the course. The only data analysis for Track C students is the bar chart, of one variable (HW 1 and 2), and of two variables (HW 7).

**Track C:** Marketing research concepts from the text + Bar Charts, use R or Excel.

**Track ABC:** Marketing research concepts from the text + Bar Charts, Histograms, Summary Statistics, Hypothesis Tests and Confidence Intervals of Means and Mean Differences, Regression, and Multiple Regress, and use R to accomplish those analyses.

Although less work, Track C students also learn about general marketing research concepts, and complete their own data analysis project. They only do bar chart analysis of the items on the survey, but then bar charts are an important part of any such analysis.
We are living in a world in which data analytics is becoming an increasingly marketable skill. As your instructor, I want to offer to those students who wish to attain data analysis skills the ability to do so, to be able to confidently include data analysis as one of their skills on their resume. At the same time I want to offer other students a means to pass this course and learn some general concepts of marketing research, and to have the satisfaction of doing their own survey project. Even at a simpler level of data analysis application, the project analysis is still useful.

In summary, the course content depends on the Track that you choose. When must you choose? You can choose as late as after the midterm, but if you opt for Track C at some point, the earlier you make that choice the more effectively you will use your time. The reason, as previously stated, is that after the first homework Track C requires much less work on a weekly basis than does Track ABC. If you had decent quality statistics prerequisites (some students have not), and if you learned the material, this course is pretty basic. The problem, as noted, is that many students seem to have learned and/or retained little knowledge of the prerequisites, or have interest in these prerequisites. But regardless, if you successfully pursue Track ABC, you will have attained some real data analysis skills.

Weekly Homework. Homework problems, indicated by track, are assigned once a week, turned in via D2L. Find the homework assignment for each week at the bottom of the corresponding weekly content page. Except for the first week, Track ABC students do more homework each week than do Track C students, and this distinction is clearly marked on each homework assignment. The answers to the questions are due at the end of each week, 11:59pm on each Sunday night. Solutions are posted early the following week.

Two important conditions regarding the homework:

1. The Study Guide for the tests and the project are the homework concepts, questions and solutions. All questions on the tests are based directly on the homework. Indeed, many of the questions are literally the same on both the homework and the tests. As such, homework is not optional. Only students who have completed their corresponding weekly homework assignments may take the Midterm or Final. To do the homework is to prepare for the tests and project. If you cannot make the due date for an assignment, please contact me in advance so we can discuss how to address the situation.

2. Homework is scored for completion, not for correctness. Homework in this class is a learning experience. Feel free to work with other students and even turn in identical homework assignments (each under your own name). Each week I want to see that you are making the effort to learn. Each week you will have full, detailed solutions on Monday or Tuesday after the Sunday night deadline for the homework. Your job is to evaluate your answers against my answers, and ask any questions about any discrepancies. See the previous paragraph as to why understanding my solutions is so important to success in this class.

Computer Analyses. I have developed a set of computer routines based on the data analysis application R, called lessR, which are designed to efficiently and easily, with the emphasis on easily, provide precisely the analyses needed for this course, and for which support and examples are provided. To learn more about the impact of R and its increasingly important role in data analysis, read the New York Times article about R. The popularity of R since the publication of that article in early 2009 has become even more prominent as R is becoming the world standard for data analysis.
The instructions for obtaining R and then lessR are found on Week 1 of the D2L content. In the modern world of open source software, both R and lessR are without cost and can be installed on any Windows, Macintosh or Linux/Unix computer to which you have access. Optional for Track C students.

**Video Conferences:** Track ABC students receive participation credit for two video conferences, one before the midterm and one after the midterm. In addition to the weekly office hours, additional video conferences are scheduled early in the course, before the midterm, and early in the second half of the course and before the final. Times for the sessions are posted at least a few days before they occur. Pay attention to the D2L announcements section to learn of the times, then just show up to the times that you wish to attend. Basically the sessions are extended office hours for those times in the term when they are the most useful.

**Tests:** The tests consist of a Midterm and a Final. The Final is comprehensive, though with a focus on the material presented since the midterm. The underlying motivation is that at the end of the course you should be able to demonstrate the knowledge you have learned since the beginning, from the text, class, online readings and the project.

The midterm consists of multiple-choice and short-answer questions and the Final consists of just short-answer questions that will be taken closed-book, proctored at your computer with a service called Proctorio. The short-answer questions include interpretation of computer output. Makeup tests for poor performance on the original tests are not given.

All test questions are based directly on the homework concepts and questions. The data analysis questions on a test are exactly the same questions from the homework, with the corresponding “story problem” changed. For the homework you run your own analyses. For the tests I provide the output for you so that your task is just to answer questions about interpreting the output, the same questions from your homework. The study guide for the tests are the homework problems, all which are provided with solutions.

The tests are proctored with Proctorio software, an extension to the Google Chrome browser. Make sure to go to the Content page on D2L and read more about this proctoring process. The proctoring is based on recording video, audio, and screen capture and restricting activities on your computer such as having windows open other than the Chrome browser window you use for taking the test. When you use online proctoring no one is watching you, but if Proctorio senses suspicious activity such as someone entering the room or you looking down at your lap, it provides an automated report to your instructor who may view the recorded material. The School of Business covers the cost of this platform. Proctorio provides an ADA compliant user experience, as well as straightforward tools for identifying student accommodations.

**Course Grade:** Your course percentage is calculated from the following weights.

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Your course percentage directly translates into a letter grade. For Track ABC students, the minimum guarantees are 90% and above an A- or A, 80% up to 90% a B-, B or B+, and 70% up to 80% a C or C+. The cutoffs may be lowered to your favor, but these are the minimum guarantees. Track C students need a score of 80% performance on their section of the tests and reduced project to attain their passing grade of a C.
Inspiration: How successful can students be who learn data analysis? One of my MKTG 460 students from just a few years ago became interested in data analysis as a career while taking this course. He was able to gain entrance in what many consider to be the premier data analytics masters degree program in the world, with an acceptance ratio of around 10%. For the required group project for real world data analysis, his role was team leader of a group of students from his master’s program. He presented his team’s findings regarding a classified project of interest to both the USA State Department and CIA. Not quite one year after graduating with a marketing degree from PSU, he was sitting at the same table in CIA headquarters where the President of the United States sits for intelligence briefings, where he presented the results of his group’s analysis.

Resume Enhancement: Successively completing this course allows you to add two specific items to your resume:

- **R Data Analysis**: You will be able to do basic data analysis with free software, so no budget buster for your organization
- **Survey Construction and Analysis**: You will have conceptualized constructed, administered and analyzed the responses of a survey.

Further, you can add the associated marketing research paper you write for the analysis of your survey to your employment portfolio, which demonstrates a completed project that is your own.

Technical Support:

Proctorio support is provided only by the School of Business and by the Proctorio company.

*SB Proctorio Support:*
https://sites.google.com/pdx.edu/sb-proctorio/home?pli=1&authuser=1

*Proctorio:*
1) Live Chat: Simply click the activated Proctorio shield icon
2) Phone: 1-480-428-4089 or 1-866-948-9248
3) Email: support@proctorio.com

For general D2L issues, the place to go is the PSU Help Desk:

*D2L Support:* https://www.pdx.edu/oit/contact