Welcome to SIOB 296 Survey Design and Analysis. A course about understanding DOTs. It may seem a bit funny to frame the course this way but as you will see it's not. We will take a systematic look at the world of primary data collection -- from design to observing activity to tabulating results and then to accessing the merits of what we uncovered.

In this class, you will learn how to collect primary information which will provide insights into any area where mankind has set its footprints. My job is to expose you to what is involved in undertaking a project that would benefit from the field of survey research. To get the most out of this course, you will need to ask questions continually about the process and see how each of the elements fits together. You will learn what the important questions are and when they need to be asked and how to answer them. Your notes from this class will give you a summary guide that can be used as you come across survey-based research in whatever environment you find yourselves.

The course will walk you through each step in the process of collecting the desired information. We will talk about how to recognize "problems/ questions" that can be addressed from a survey-driven framework. We will start with the big picture and then focus on each component to a survey process -- design, collection, processing, analysis, and reporting. In addition, you will be given insights in how to critique survey-based studies. At the end of the course you will understand how to construct and field a survey-based study and how to critically evaluate these types of surveys.

Summary of Course Goals/Learning Objectives

Course Goals/Learning Objectives
- Be able to ask the questions that need to be asked.
- Statistically design a survey-based project
- Select representative samples
- Learn to identify and evaluate potential errors and bias
- Write effective questionnaires which yield responses that are accurate and meaningful
- Determine the "best" way to collect the information
- Know how to select the appropriate analytical tools
- Present findings in a clear and concise manner
- Be familiar with terminology
- See the big picture
Course Materials/Textbook

Judging by the past, most students end up doing web searches by topic and relying on YouTube instructional videos. However, this year should be different. I finally have found a textbook which I think fits perfectly for this class.


I will provide you with a copy which is yours to keep if you complete the class. Otherwise I would ask that you return it to me.

Other texts are —

The Oxford Handbook of Polling and Survey Methods; Edited by Lonna Rae Atkeson and R. Michael Alvarez. Oxford University Press 2018


Course Overview
This is an introductory survey course which will show how to design, execute, analyze, and present the results of a project that requires primary data collection. Survey research is all about gathering information. Information is at the foundation of decision-making. And as George J. Stigler, Nobel Laureate, Economics pointed out "Information is a valuable resource: knowledge is power." Surveys are all about collecting information. We begin with an overview of survey research and its environment and identify the subsequent problems/issues that must be addressed. Next, we will examine the critical process of designing the project, learn how to write a questionnaire, determine the best way to collect the information, decide how to best select the sample of individuals we are going to question, calculate the number of individuals we need to interview, examine the steps needed to properly process the survey effort from the data collection to electronic database. Once we have compiled the numerical representation of the survey, we administer statistical means to describe, infer and forecast what are the effects generated from the event we are observing. And, finally, we will assess our reporting and presentation options in sharing the findings of the survey effort. In all there are ten (10) modules that make up the course. They are:

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