# IPS 303 Understanding Data

## Course Description
Students learn to identify, analyze, use, and interpret data to solve problems and make decisions. Interactive data activities, case studies, videos, lectures, and dialogue will facilitate student understanding. *This course integrates IPS 304 Contemporary Media Literacies.*

## SLOs
1. Articulate the importance of understanding data in today's world.
2. Identify and evaluate alternative types of data and data sources.
3. Gather and manipulate data to provide numerical and visual summaries.
4. Explain the process and importance of statistical inference.
5. Effectively present data to provide information and/or support and argument.

## Major Assignments

### Essay
Critique internet sources and explain how (or not) they hold up against the six criteria for evaluating good internet data.

### Data Visualization
Analyze and visualize data in the forms of a pie chart, bar chart, histograms, and scatterplots.

### Running Case Study
Assess the state of a simulated organization’s culture and make recommendations to improve it. To do this, you’ll need to (1) draft non-biased survey questions that elicit truthful responses without misleading respondents to answer questions inaccurately, and (2) interpret and present graphical visualizations that truthfully represent the data.

### Final Company Report Out
Use a dataset to create a PowerPoint report that includes data visualizations and descriptive statistics in a way that tells a story. Share the results in an audio presentation.

## Reading List

## The Student Experience

“I learned stuff about statistics that made it fun…I have even taken some of the learnings already into my daily job. I had no idea Excel could be used in such a powerful way with statistics.”

“I love that this class is extremely relevant to real life work requirements. Everyone should have a working knowledge of data and how to present data in an excel file, or in a powerpoint presentation.”

“I liked how the professor encouraged us to be creative in our assignments. He was looking for evidence that we understood what we were expected to learn. Great class and great instructor!”