**Brief Outline of Lab assignment topics with SL assignments embedded**

Both business statistics I and business statistics II have bi-weekly lab assignments in which students tackle larger datasets and address a general business question.

**Lab I: Summarizing and describing categorical variables: ~ Week 2**

**Service-learning Homework Assignment I: Getting your HIPAA training certification**

This is a mandatory assignment. Five points will be deducted from the mandatory lab 5/6 assignment at the end of the semester. Furthermore, you will not be able to help in collecting the data necessary to complete the projects proposed for \_\_\_\_\_\_\_\_\_\_\_\_\_\_ which will result in further point deductions.

**Lab II: Summarizing and describing numerical variables: ~Week 4 Survey Design**

**Service-learning Homework Assignment II: Service-learning orientation**

After listening to the community partner’s orientation in class and reviewing the community partner’s website, submit a list of ten variables you might find in the client’s file which will help us to describe characteristics of the clients and look for relationships. Submit a short paragraph that includes how this information may help the organization.

**Service-learning Homework Assignment: Data collection and Reflection**

Schedule a 2-3 hour block of time to collect data:

Please pick a time from the following options to go the Office of Service Learning to review files and record data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **September 27**  **2:00-4:30** | **September 28**  **11:00-1:30**  **3:00-5:00** | **September 29**  **10-12:30**  **1:00-2:00** | **September 30**  **3:00-5:00** | **October 1**  **10-12:30**  **2:00-4:30** |
| **October 4**  **10-12:30**  **2:00-4:30** | **October 5**  **11:00-1:30**  **3:00-5:00** | **October 6**  **10-12:30**  **1:00-2:00** | **October 7**  **3:00-5:00** | **October 8**  **10-12:30**  **2:00-4:30** |

**SL Reflection Assignment: ON A SEPARATE SHEET OF PAPER TURNED IN**

After you have participated in the data gathering process please write a short paragraph reflecting on how you expected the data collection to go contrasting with what really occurred; and write another short paragraph describing something you learned about Ward Home.

**Labs IV and V: ~ weeks 8-12**

We begin working with the data, using the actual data collected to demonstrate the statistical concepts that are currently being discussed in the classroom; probably estimation and hypothesis testing for a single mean or proportion.

**Final Project Reflection**

Throughout the two semesters of business statistics, it is my ultimate goal to prepare you to be able to design a data collection study formulated around a specific question or hypothesis. The final project is therefore designed to mimic a more real-life experience and meet the following learning objectives.

* **Learn how to develop a research design for testing the difference between two or more population means or proportions (or testing the relationship between two variables such as a simple linear regression would be necessary) and apply the appropriate statistical model(s) for testing a desired hypothesis.**

In order to accomplish this, students will exhibit the ability to:

* + design a simple method of data collection and be able to discuss sampling bias
  + structure and synthesize the information collected by using appropriate summary graphs and statistics
  + apply analytical procedures for the purpose of drawing useful conclusions,
    - tests of hypotheses
    - confidence interval estimation
  + draw conclusions about the sampled population
  + and develop proposed solutions if necessary

On a separate piece of paper, please answer the following questions and staple it to the multiple choice questions on the back of this page. THERE ARE NO RIGHT ANSWERS, just a 5 point reduction in your project grade for failing to submit a response individually. This is not a group effort.

1. Reflection on the *academic content* of the final project assignment:

Please write a short paragraph on how doing this final project helped you to:

1. design an experiment following a question of interest
2. understand difficulties in collecting data as free from bias as possible
3. prepare the data for statistical summarization (using statistical software)
4. perform a statistical analysis including data summarization, hypothesis testing, confidence interval estimation and drawing conclusions.

Please comment on problems you did or did not expect and how you dealt with them.

2. Reflection on the *(social) benefits* to a population on doing this project:

Please write a short statement about who might benefit from this information and why this is important. For those who volunteered with the service-learning project, please consider why your statistical ‘expertise’ was valuable or not valuable for the organization we helped.

3. Reflection on *student development*. Please comment on how completing the objectives in this final project may have furthered student development as you approach upper level classes and ultimately a professional life.

**A few short multiple choice questions: (circle your response)**

1. Which option did you choose to do for the final project?

a. my own research b. The service-learning project

2. Overall, do you agree that the final project was helpful in achieving the learning objectives listed above:

a. strongly agree b. agree c. no opinion d. disagree e. strongly disagree

3. Overall, do you agree that the final project was helpful in understanding how statistics can be applied in the ‘real world’?

a. strongly agree b. agree c. no opinion d. disagree e. strongly disagree

4. Personally, did you find doing the final project a positive experience?

a. very positive b. positive c. just OK d. not positive e. a royal pain

5. Now that it is over, would you choose the same option for doing the final project?

a. yes b. no

5a. If you answered no, why would you have change your decision to do or not do the service-learning project?

6. Do you think your final project was helpful to anyone other than your group?

a. yes b. no