D208 Predictive Modeling
Welcome, Study Plan and Course Pacing Guide!
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> **NOT SURE WHERE TO START IN THE COURSE?? You are in the right place!**
> Your D208 instructor team has put together the following guide full of resources and course tips to help you get the most out of this course and to help you pass the course in the most efficient way possible! 😊

Welcome to D208 Predictive Modeling!

In this course you will be learning linear regression and logistic regression as model building methods to explore causation in support of organizational decision making. You will apply data preparation and exploration skills learned in previous classes then proceed to assumptions of regression, variable selection, model building, model metrics, and limitations. The course culminates in communication of your model building decisions, results, and limitations in both written and video reports for two different tasks. Task 1 is linear regression. Task 2 is logistic regression.

D208 STUDY PLAN OUTLINE

This study plan outline is a result of student feedback on what has helped your fellow Night Owls succeed!

Many students find that the most efficient way to complete this course is by completing Task 1 and then completing Task 2. That may sound obvious, but we have found that students who start with Task 2 require more task submissions and take longer to complete the course.

D208 RECOMMENDED STUDY PLAN

The study plan below has helped many students succeed in this course. You can create your own custom D208 pacing guide by using *Dr Straw's D208 Pacing Guide CUSTOM* Excel file in [Dr. Straw's D208 resource folder](#).

1. **Get familiar with the course and performance assessments.**
   a. Task 1 is linear regression and requires a continuous dependent variable.
   b. Task 2 is logistic regression and requires a categorical dependent variable.

    c. Scan Dr. Middleton's D208 Part I and D208 Part II slides, which can be located by selecting *Course Tips* on the right-hand side of the course page, then selecting *View All*.

2. **Select your programming language, either Python or R**.
   a. Consider your current work environment as well as career aspirations.
   b. Review [R or Python](#) for some side-by-side comparisons.
   c. D208 is not a good course to experiment with a new language. Stick with the language you used in previous courses unless there are compelling reasons to switch.

3. **Study linear regression.**
   a. DataCamp: The DataCamp learning resources include both Python and R courses. Complete the linear regression courses for the language you selected. DataCamp resources can be found by selecting the *Go To Course Material* on the course page.
   b. Webinars: Watch recordings or participate in live webinars offered by Dr. Middleton and Dr. Sewell. Recordings can be located by selecting *Course Tips* on the right-hand side of the course page, then selecting *View All*. You can enroll in live webinars by selecting *Explore Cohort Offerings* on the course page.

4. **Select one of the available data sets.**
   a. The data sets can be found by selecting *View Task* on the course page then selecting the *Data Sets and Associated Data Dictionaries* link at the bottom of the page.
   b. Ignore the scenario on page 1 of the PDF document in the data set ZIP folder. This scenario has nothing to do with your work in this class.
   c. Both data sets have been designed to force hard decisions. There are no outstanding models hidden in this data. There are only hard choices.

5. **Complete Task 1 Linear Regression.**
   a. Review Dr. Middleton's D208 Part I and D208 Part II slides, which can be located by selecting *Course Tips* on the right-hand side of the course page, then selecting *View All*.
   b. Review Dr. Straw's tips for success document in in [Dr. Straw's D208 resource folder](#).

6. **Study logistic regression.**
   a. DataCamp: The DataCamp learning resources include both Python and R courses. Complete the logistic regression courses for the language you selected. DataCamp resources can be found by selecting the *Go To Course Material* on the course page.

b. Webinars: Watch recordings or participate in live webinars offered by Dr. Middleton and Dr. Sewell. Recordings can be located by selecting *Course Tips* on the right-hand side of the course page, then selecting *View All*. You can enroll in live webinars by selecting *Explore Cohort Offerings* on the course page.
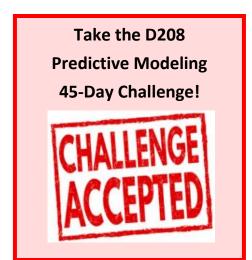
> **7. Complete Task 2 Logistic Regression**
> a. Review Dr. Middleton's D208 Part I and D208 Part II slides, which can be located by selecting *Course Tips* on the right-hand side of the course page, then selecting *View All*.
> b. Review Dr. Straw's tips for success document in in Dr. Straw's D208 resource folder.

D208 COURSE PACING GUIDE

The amount of time any course will take you to complete depends on many factors, including your background, previous experience with the course material, and the amount of time you can devote to studying and practice. Many students can complete this course in 6 weeks. To help you stay motivated while making progress toward your goals, your course instructor team has put together a **45-day Challenge** for this course. To meet the challenge, we suggest the following pacing:

> Take the D208
> Predictive Modeling
> 45-Day Challenge!

- **Week1**: Familiarize yourself with the course resources and Task 1 requirements. Choose your language, either Python or R. Follow the recommended study plan for linear regression. Practice all examples. You cannot learn to code by reading about coding. You must practice.

- **Week 2**: Continue to follow the recommended study plan for linear regression. Practice all examples. Choose your data set and begin performing the steps in Task 1.

- **Week 3**: Perform, write, and submit Task 1. Work on revisions to Task 1 as needed.

- **Week 4**: Familiarize yourself with Task 2 requirements. Follow the recommended study plan for logistic regression. Practice all examples. You cannot learn to code by reading about coding. You must practice.

- **Week 5**: Continue to follow the recommended study plan for logistic regression. Practice all examples. Begin performing the steps in Task 2 with the same data set you used in Task 1.

- **Week 6**: Perform, write, and submit Task 2. Work on revisions to Task 2 as needed.

Where to Get Help … for Each Section of the Assessment!

A

Choosing a good business question!

- Dr. Middleton's D208 Part I webinar & slides (available via Course Tips > View All on the course page)
- Dr. Straw's tips for success, section A

B

Justifying methods!

- Dr. Middleton's D208 Part I webinar & slides (available via Course Tips > View All on the course page)
- Dr. Straw's tips for success, section B
- DataCamp Python or R courses (available via the GO TO COURSE MATIERAL button on the course page)
- WGU COIT Programming Center

C

Preparing data!

- Dr. Middleton's D208 Part I webinar & slides (available via Course Tips > View All on the course page)
- Dr. Straw's tips for success, section C
- DataCamp Python or R courses (available via the GO TO COURSE MATIERAL button on the course page)
- *Practical Statistics for Data Scientists*
  - Chapter 4: Regression and Prediction, section Factor Variables in Regression

Where to Get Help … for Each Section of the Assessment!

D & E

Building & comparing!

- Dr. Middleton's D208 Part II webinar & slides (available via Course Tips > View All on the course page)
- Dr. Straw's tips for success section D and section E
- DataCamp Python or R courses (available via the GO TO COURSE MATIERAL button on the course page)
- Dr. Sewell's D208 Episodes 1 to 6 (available via Course Tips > View All on the course page)
- *Data Science Using Python and R*
  - Chapter 11 Regression Modeling, all sections
  - Chapter 12 Dimension Reduction, Sections 12.2, 12.3, and 12.11
  - Chapter 13 Generalized Linear Models, sections 13.1 through 13.4
- *Practical Statistics for Data Scientists*
  - Chapter 4: Regression and Prediction, sections Simple, Multiple, Prediction, and Interpreting
  - Chapter 5: Classification, section Logistic and Evaluating

F

Summary & Implications!

- Dr. Middleton's D208 Part II webinar & slides (available via Course Tips > View All on the course page)
- Dr. Straw's tips for success section F
- DataCamp Python or R courses (available via the GO TO COURSE MATIERAL button on the course page)
- Dr. Sewell's D208 Episodes 1 to 6 (available via Course Tips > View All on the course page)

Where to Get Help … for Each Section of the Assessment!

G

Creating Your Panopto Video!

- Online Panopto resources:
  - How to Create a Video Using Panopto
  - How to Submit Your Performance Assessment including Video Link
- **Contact Assessment Services at 877-HELP-WGU Option 2 if you:**
  - Need Panopto access / no CREATE button
  - Can't adjust your video sharing settings / evaluator cannot access video
  - Can't find the D208 Student Assignments folder to put your video into

H & I

Using & Citing Sources!

- Every source in section I must be cited within your document.
- Student Writing Center
  - How to document sources (article)
  - How to Cite Webpages (article)
  - How to Cite Webpages (video)

J

Professional Communication!

- www.grammarly.com
- WGU Student Writing Center
- I Need Help with Professional Communication, which includes links to Writing Center resources on writing, grammar, and more!

Keep on learning!

Your course instructors are here to help and encourage you with the course content. You can email or schedule an appointment with a course instructor if you have any questions about the course content. We want to help you succeed in this course!