Codeup Syllabus

Hopper Cohort: September 7, 2021 through March 14th, 2022

Communication and Contact

Email datascience@codeup.com with any questions, comments, or concerns related to the classroom,

Students will be expected to check (and respond to) their email on a regular basis. Codeup will also communicate through Slack: a workplace chat / instant messaging tool, and Google Classroom: an online managemenent system for grades, assignments, announcements, and course material. Students will be expected to be active in Slack on a regular basis.

Slack

There are two slack channels that you will primarily interact with, `#hopper` and `#hopper-queries`.

`#hopper` is used for general classroom announcements. Examples of what you might see in `#hopper`:

- An announcement of when the next lecture starts
- A mid-morning reminder to take a break
- Communication with the rest of the codeup staff specific to your cohort

`#hopper-queries` is a slack channel specifically for asking pointed technical questions. Examples of what you might see in `#hopper-queries`:

- A classmate's question about the exercise we are currently working on
- A classmate's question about some python code related to the current project
- Be sure to ask technical questions in the `#hopper-queries` channel
- Clarifying questions from instructors

`#data-science-students` is a larger chat room for DS alumni and current students

`#mentors` the channel for mentors, mentees, and mentoring opportunities/conversations

Topics Covered

We will cover other topics as well, but this table outlines the major areas we will focus on, and corresponds to the top-level modules in the curriculum.

Topic	Description
Fundamentals	Introduction to Data Science
Tools	Command Line, VCS, SQL, Python, Spreadsheets, Storytelling, and Stats
Methodologies I	Classification, Regression, Clustering, and Time Series Analysis
Methodologies II	Anomaly Detection, NLP, Distributed ML, and Advanced Topics

Curriculum

In addition to the materials provided in-class, students should plan to organize their own notes to keep track of shared resources.

All students will be given access to Codeup's data science curriculum, located at http://ds.codeup.com. Occassionally instructors will provide paper handouts or share code samples electronically. Supplemental material will also be shared in Google Classroom. Lecture and exercise notes will be shared through GitHub.

Students are encouraged to do their own research and utilize external resources as well.

Classroom Conduct

In general, you are expected to be respectful of the learning environment.

Do

- Ask questions, while giving others time to talk
- Collaborate with and help out your peers
- Be curious and seek out new challenges
- Silence your cellphone
- Take short breaks when needed
- Respect your peers and their questions, everyone comes from a different background, and there are no bad questions

Don't

- Engage in off-task activities during class time (e.g. YouTube, Netflix, news sites, videogames, social media, etc.)
- Be out of the classroom for long periods of time
- Call and text on your cellphone
- Have a side conversation during a presentation or lecture
- Discourage others
- Sleep in class

We ask that you leave the classroom to perform non-classroom related activities.

Attendance

If you are not going to be present for any reason, email datascience@codeup.com to let us know.

Class starts at 9:00 every morning. This doesn't mean you should show up at 9, rather, you should be ready to begin at 9, meaning you should be present at least 10 to 15 minutes prior in order to review the past day's material and prepare for the current day.

- Arriving later than 9:00 but earlier than 9:15 counts as a tardy
- Arriving later than 9:15 counts as a half day absence
- Leaving before 4:45 counts as a half day absence (3:45 on Monday, 12:15 on Wednesday)
- Leaving after 4:45 but before 5:00 counts as an early departure (4:00 on Monday, 12:30 on wednesday)

Grades

Your grade is made of the following components, all of which are cumulative:

Item	Percentage	Description
Quizzes	30%	Average of quiz scores
Exercises	20%	Percentage of curriculum exercises completed by module
Assessments	40%	Performance on assessments and projects
Attendance	10%	Attendance percentage

- Progress reports will be delivered at the end of each grading period
- Exercise completion will be determined based on the work turned in and the code on your GitHub account
- No credit will be awarded if naming conventions for files are not followed or work is not pushed to Github by due date
- The exercises for a module are due by 9:00 am the day we start the next module
- Quizzes will be in-class, and a combination of written and multiple choice questions
- Assessments will be written tests, and, later in the course, data science projects

Grading Periods

1. Up to and including Python
    - Data Science Skills in Demand Project
    - Fundamentals Assessment
    - SQL Exercises
    - Python Exercises
    - Python Assessment
2. Up to and including Classification
    - Spreadsheets Exercises
    - Storytelling Project
    - Stats Exercises
    - Stats Assessment
    - Classification Exercises
    - Classification Project
    - Classification Quiz

3. Up to and including Regression
    - Regression Project
    - Regression Quiz
    - Regression Exercises
4. Up to and including NLP
    - Clustering Project
    - Clustering Exercises
    - AD Exercises
    - TSA Project
    - TSA Exercises
    - NLP Project
    - NLP Exercises
5. Up to and including Capstone Review Panel III
    - Spark Exercises
    - Review Panels

In addition there will be several quizzes spread out throughout the course, announced at least 1 day in advance.

How to Get Help

The primary way to get your questions answered is by asking them in the classroom during classroom hours both during lessons and during exercise time.

Before asking for help you should use Google or other resources, ask your classmates and finally ask your question in the `#hopper-queries` slack channel.

Exercise Time == Office Hours

- Colleges offer office hours because classes meet a few times a week for an hour.
- Codeup meets every day, so the *best* time to ask for help is during class time.
- If you have questions on the exercises or topics, exercise time is the best time to ask

Study Hall Hours

While the primary time for questions and help is during classroom hours, Codeup also offers specific study hall before and after class for questions or issues that cannot be answered or addressed during classroom or exercise time. So use regular class hours as your first option, but if you need time after hours or additional time, feel free to schedule time with an instructor for 1:1 help and guidance.

To schedule a 1:1, email datascience@codeup.com. Be prepared with a specific topic, questions, or an assignment to work through during your 1:1.

Miscellaneous

Teamwork / Collaboration

You should communicate in a professional manner with your teammates. If you need to miss class time during an assigned group project, for example, you should inform both instructors and also your teammates.

Data science is not a solo activity. You will be expected to work collaboratively with your classmates, both informally throughout the course, and formally, in the form of pair and group projects.The first two projects will be done solo and after that you will paired with a classmate(s). You *must* work with a different classmate for each project.

Standing Homework

Students are expected to work outside of classroom hours to keep up with the course, including reading ahead in the curriculum, finishing incomplete exercises, and practicing with external resources.

Presentations / Code Demos

Throughout the course you will be called upon to demo, or present, your work to the rest of the class.

Presenting your work and talking through your approach is a key skill that employers desire.

All work and presentations must be submitted as directed prior to start of presentation. The projects will be graded on a rubric that will not be availabile ahead of time to simulate workplace practices.

Any unexcused absence that leads to missing a presentation will cause you to lose *all* points for the presentation.

An excused abscence that leads to missing a presentation will need to be coordinated with instructors through datascience@codeup.com so that it can be made up within *two days* of returning.

Zoom

Zoom, with video, is how we will take attendance. Unless otherwise arranged with the instructors, you will be marked absent if you are not on the classroom zoom call with video by 9:00 or if you leave the classroom zoom. Students are expected to use their real names (the name you go by) as their names on zoom.

When on a classroom zoom call, students are expected to keep themselves muted unless they are actively speaking.

Classroom Hours:

	Start	Lunch	Stop
Mon	9:00	12:30 - 1:30	4:00
Tue	9:00	12:30 - 1:30	5:00
Wed	9:00	-	12:30
Thu	9:00	12:00 - 1:30	5:00
Fri	9:00	12:30 - 1:30	5:00

Tentative Schedule

Dates subject to change based on individual cohort classroom experience.

Module	Tentative Start Date
Fundamentals	2021-09-08
SQL	2021-09-15
Python & Python Libraries	2021-09-29
Spreadsheets & Storytelling	2021-10-20
Statistics	2021-10-28
Methodologies I	2021-11-08
Methodologies II	2022-01-21
Capstone Projects	2022-02-18

Important Dates

Event	Date
First Day of Class	2021-09-07
No Class - Staff Day	2021-09-24
No Class - Indigenous People's Day	2021-10-11
No Class - Staff Day	2021-10-29
No Class - Veteran's Day	2021-11-11
No Class - Thanksgiving	2021-11-24
No Class - Thanksgiving	2021-11-25
No Class - Thanksgiving	2021-11-26
No Class - Staff Day	2021-12-17
No Class - Winter Break	
First Day of Class in 2022	2022-01-03
Start Capstone Projects	2022-02-18
Hopper Graduation	2021-12-07