

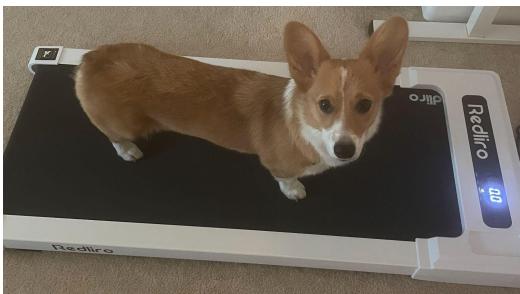
Cpsc 392

Dr. Chelsea Parlett-Pelleriti

Who is this person?



Who is this person?



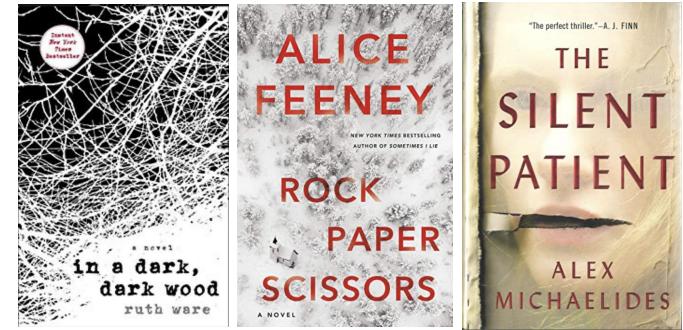
Who is this person?



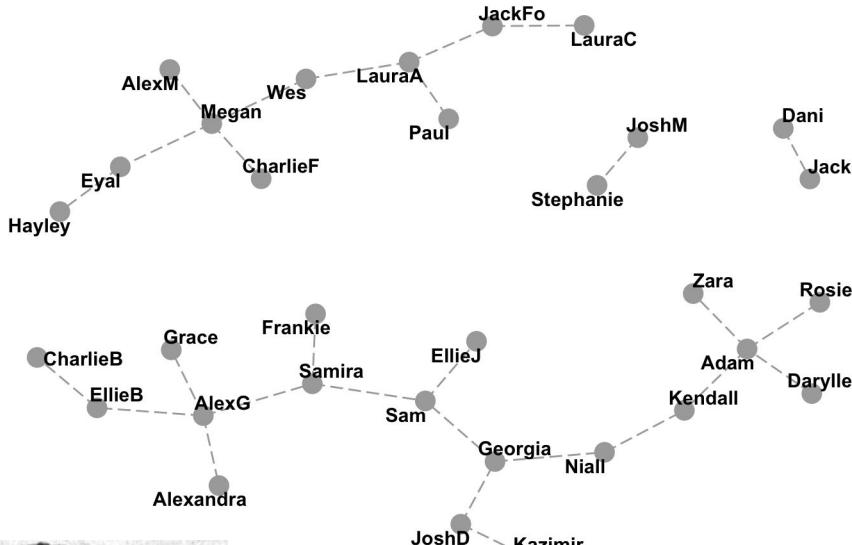
Dr. Chelsea
Parlett-Pelleriti
(she/her)



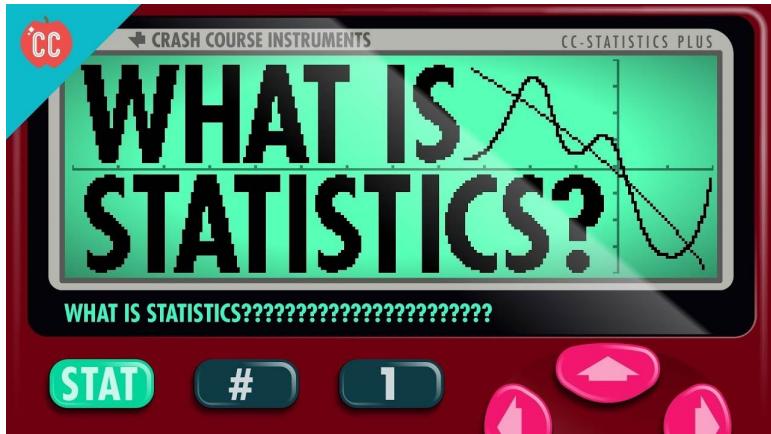
ANT-MAN IRON MAN HULK



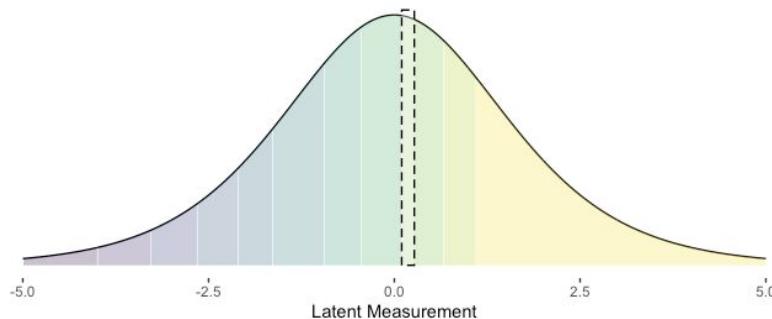
Love Island 2018 (only couples)



Who is this person?



Cutoffs for Bet/JOL



Who is this person?



What Do Professors Do?

- Teaching
 - Course Prep
 - Lecturing
 - Grading
 - Admin
- Research
 - Writing Grants
 - Collecting Data
 - Analyzing Data
 - Surveying the Literature
- Service
 - Internal
 - Committees
 - Projects
 - Student Organizations
 - Mentoring
 - External
 - Peer Review
 - National Organizations
 - Mentoring
 - Writing
 - Conferences/Workshops

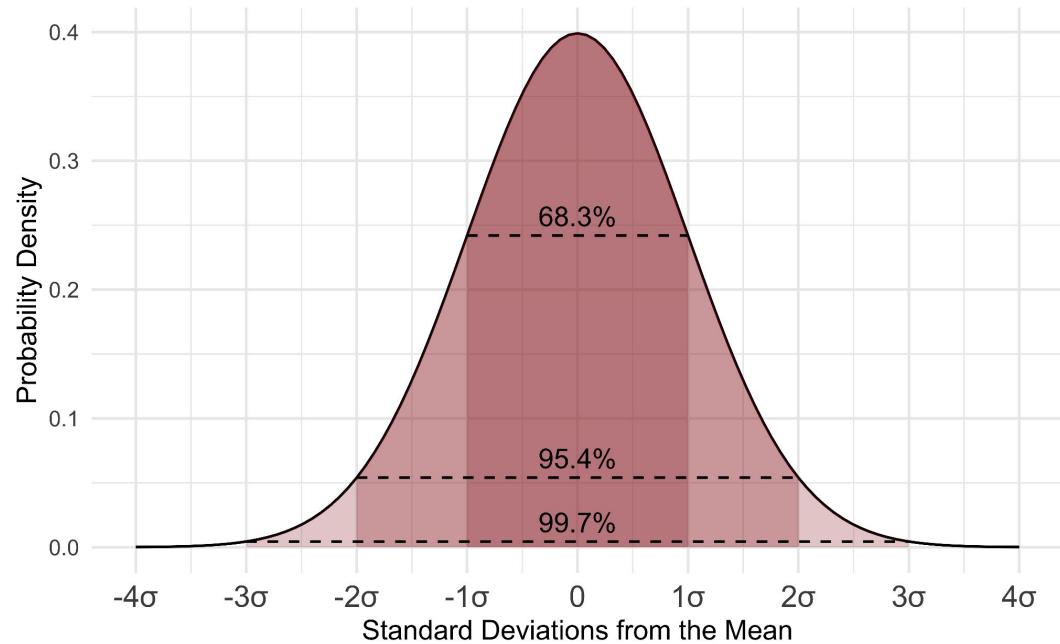
WikiRacing

Course Admin

What to Expect

- Pre-Reqs
- Canvas + GitHub
- Slack
- Office Hours
- Class Structure
- **Weekly Quizzes**
- **Homework (3)**
- **Tests (2)**
- **Final Project + Presentation (In Person During Final)**
- Content (we'll get to that in a sec)

Pre-Reqs



Canvas + GitHub

Schedule

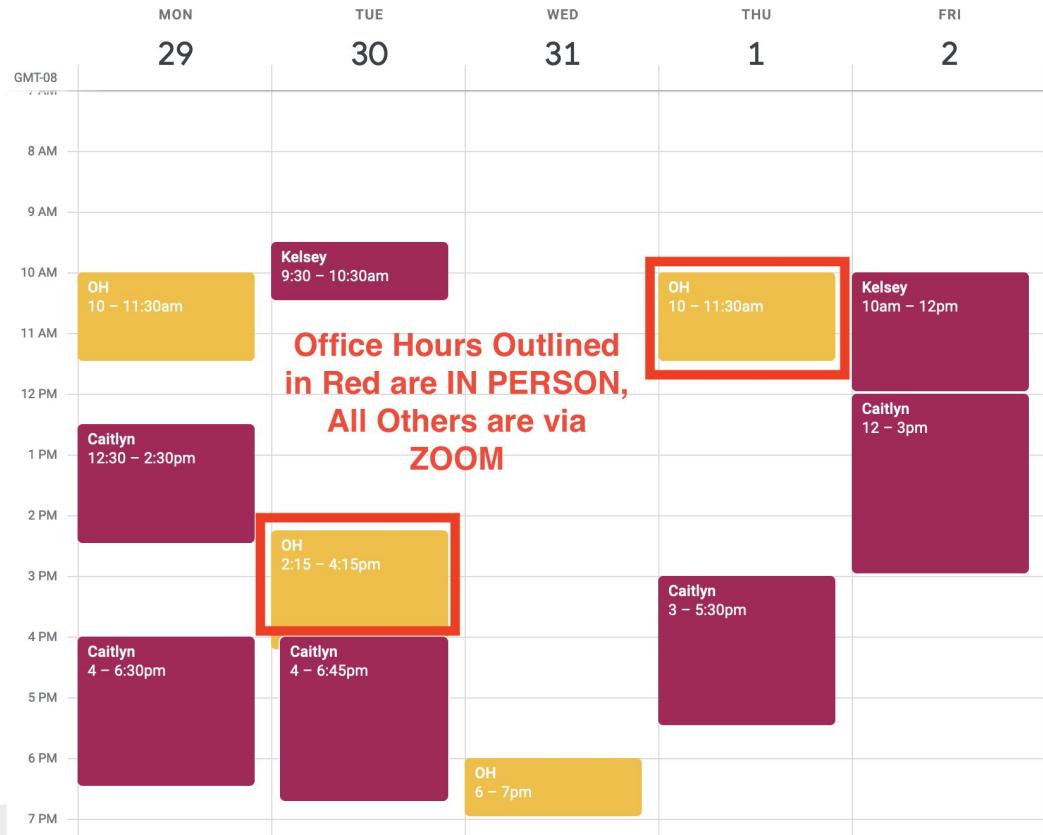
Section	Week	Class	Topic	Notes
<i>Admin and Review</i>	1	0	Intro	
<i>Admin and Review</i>	1	1	All the Stuff You Need To Know (Python)	Quiz
<i>Admin and Review</i>	2	2	Debugging (Optional)	
<i>Admin and Review</i>	2	3	All the Stuff You Need To Know (Math)	Quiz
<i>Admin and Review</i>	3	4	Data Visualization I	
<i>Admin and Review</i>	3	5	Data Visualization II	Quiz

Slack



Office Hours

In Person > Zoom > Slack



Office Hours

1. **Clarification:** seek explanations or clarifications about concepts, assignments, or course material that I find challenging
2. **Questions:** ask questions related to lectures, readings, assignments, or projects.
3. **Feedback:** get feedback on assignments or exams to understand my performance and how to improve.
4. **Discussion:** have in-depth discussions about the subject matter, exploring topics further
5. **Guidance:** guidance on study strategies, time management, or how to succeed in the course.
6. **Career Advice:** advice and resources related to future career/internship opportunities

No Book



Book

☞ Readings (optional, all books free)

- Python Data Science Handbook (Beginner book + code)
- Introduction to Statistical Learning (Intermediate Book + code)
- Elements of Statistical Learning (Advanced Book)

Reading (Optional)

Topic	PDSH	ISLP	ESL
Pandas/Numpy	Chapters 2,3	Chapters 2.3.3	
Visualization	Chapter 4 (mpl, sb)	Chapters 2.3.4 (mpl)	
Linear Regression	Chapters 5.3, 5.6	Chapters 2.2.2, 3, 5	Chapters 2.3.1, 3.2, 7.2, 7.3, 7.10
LASSO/Ridge (Regularization)	Chapter 5.6	Chapter 6.2	Chapter 3.4, 3.8
Logistic Regression		Chapter 4.3	Chapter 4.4
Decision Trees/Tree Based Models	Chapter 5.8	Chapter 8.1, 8.2	Chapters 9.2, 10.10.2, 15

Disclaimer

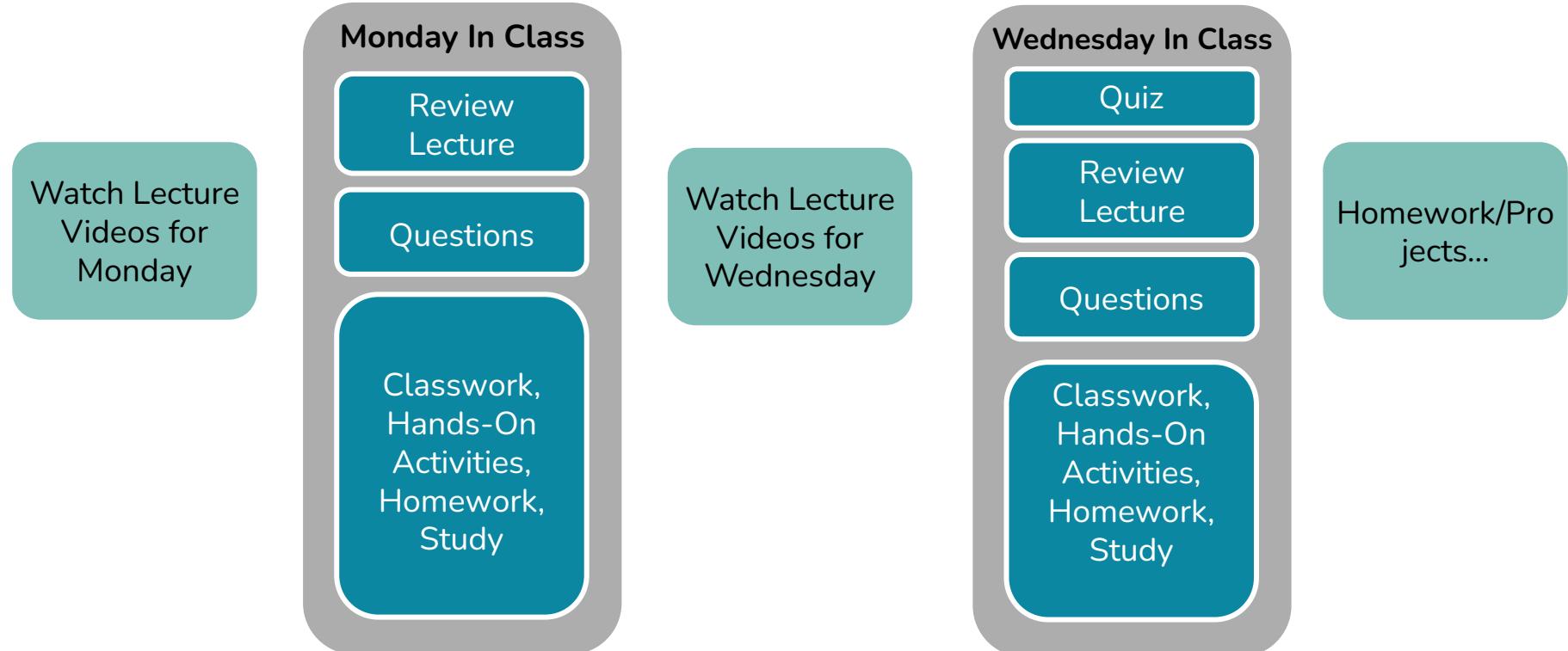
The screenshot shows the YouTube channel page for 'Chelsea Pelleriti'. The channel has 1.91K subscribers and 122 videos. The description reads: 'Data Science, Statistics, R, and Python Videos that are clear, approachable,... >'. The channel features a circular profile picture of a tree stump with a small sprout and the text 'VISION STUMP' at the bottom. The navigation bar includes links for HOME, VIDEOS (which is underlined), PLAYLISTS, COMMUNITY, CHANNELS, ABOUT, and a search icon. Below the navigation bar are three filter buttons: Latest, Popular, and Oldest. Four video thumbnails are displayed:

- Generative Models II** (CPSC 393) - 24:17
- Generative Models I** (CPSC 393) - 35:31
- Transformers II** (CPSC 393) - 22:04
- Transformers I** (CPSC 393) - 20:01

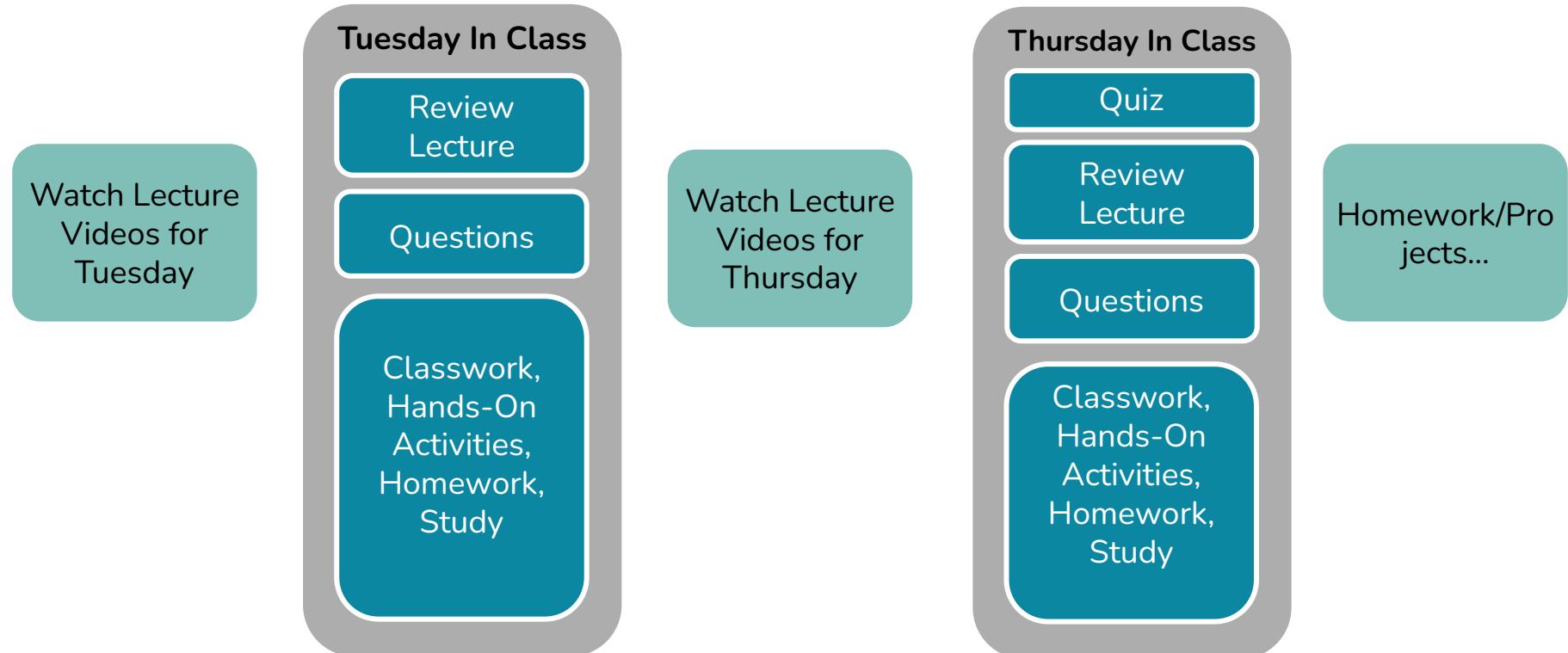
Below each thumbnail is the video title, course name, duration, and view count.

Video Title	Course	Duration	Views	Published
CPSC 393 Lecture 24 Generative Models II	CPSC 393	24:17	209 views	3 months ago
CPSC 393 Lecture 22 Generative Models I	CPSC 393	35:31	259 views	3 months ago
CPSC 393 Lecture 20 Transformers II	CPSC 393	22:04	207 views	3 months ago
CPSC 393 Lecture 19 Transformers I	CPSC 393	20:01	334 views	3 months ago

Typical Week Workflow



Typical Week Workflow



**Watch
Lecture**

In Class

**Review
Lecture**

Questions

**Classwork,
Hands-On
Activities,
Homework,
Study**

Like textbook reading, so we all start with the same baseline

Watch Lecture

In Class

Review Lecture

Questions

Classwork,
Hands-On Activities,
Homework,
Study

Reinforce material,
get questions

Watch
Lecture

In Class

Review
Lecture

Questions

Classwork,
Hands-On
Activities,
Homework,
Study

Watch
Lecture

In Class

Review
Lecture

Questions

Classwork,
Hands-On
Activities,
Homework,
Study

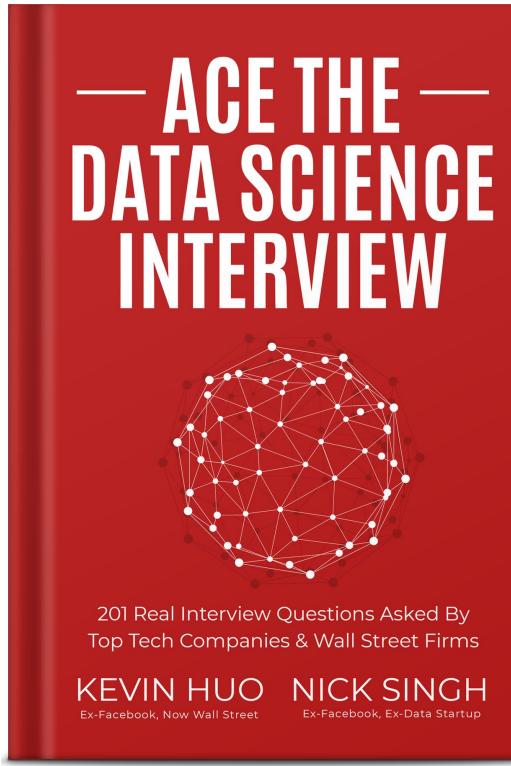
Practice, Active
Learning, Deeper
Understanding,
Teach-to-Learn

Grade Breakdown

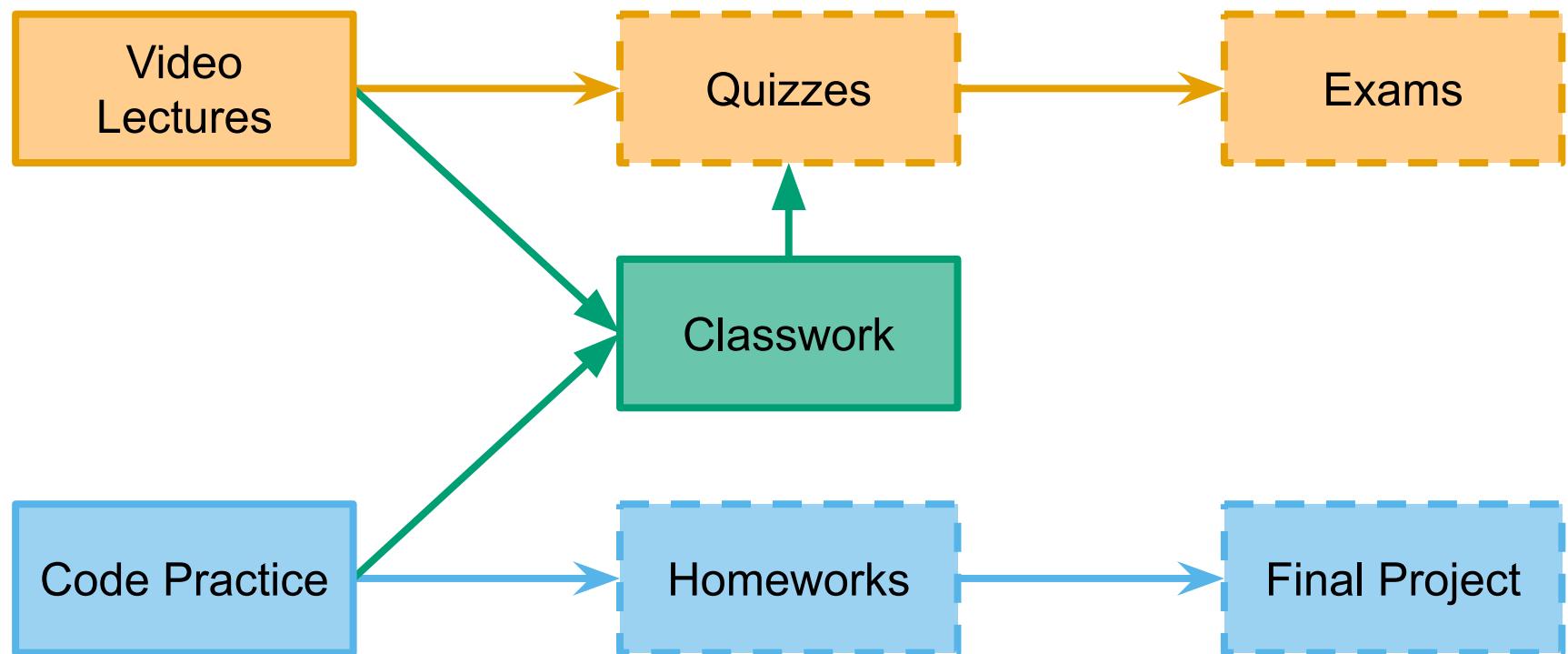
- **30% Homeworks (3)**
- **20% Quizzes (12—every Wednesday/Thursday; drop 2, make-up 1)**
- **15% Exam 1**
- **15% Exam 2**
- **20 % Final Project (Report and Presentation)**

Quizzes

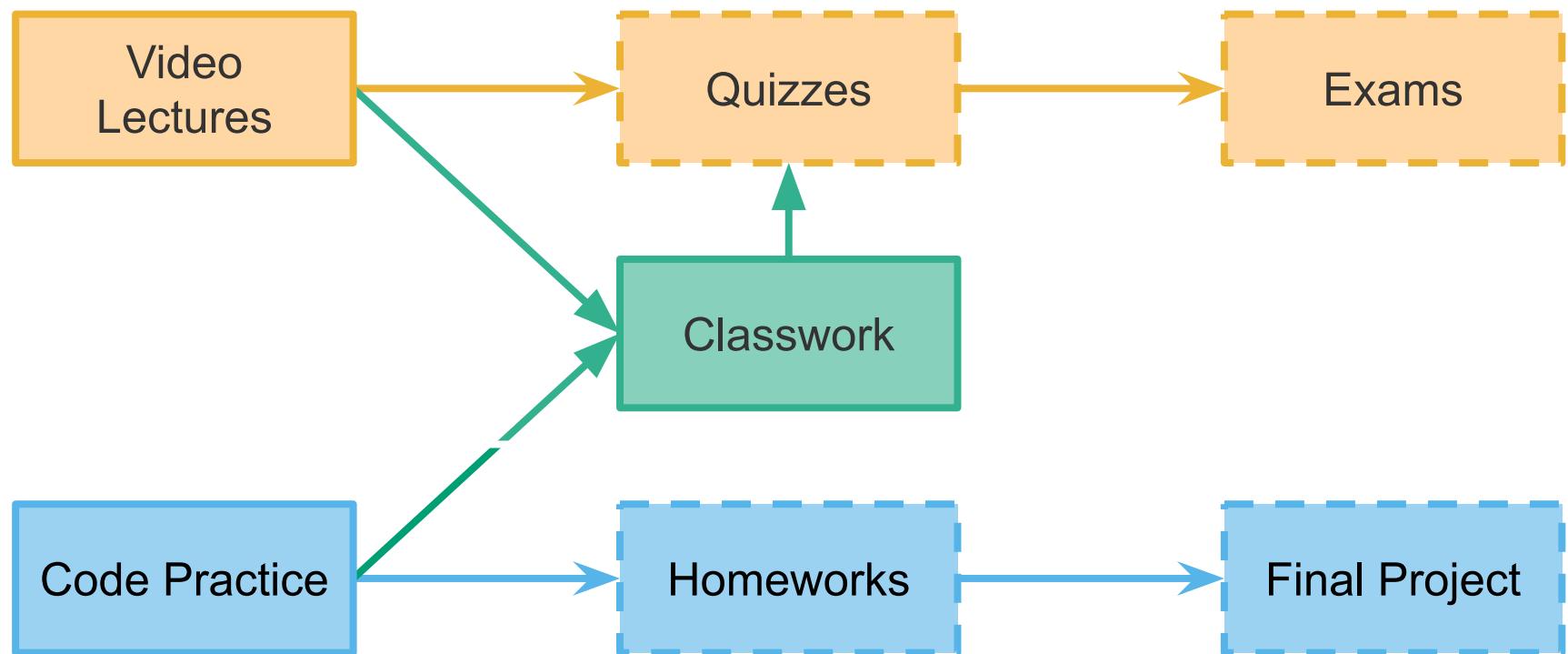
Changes



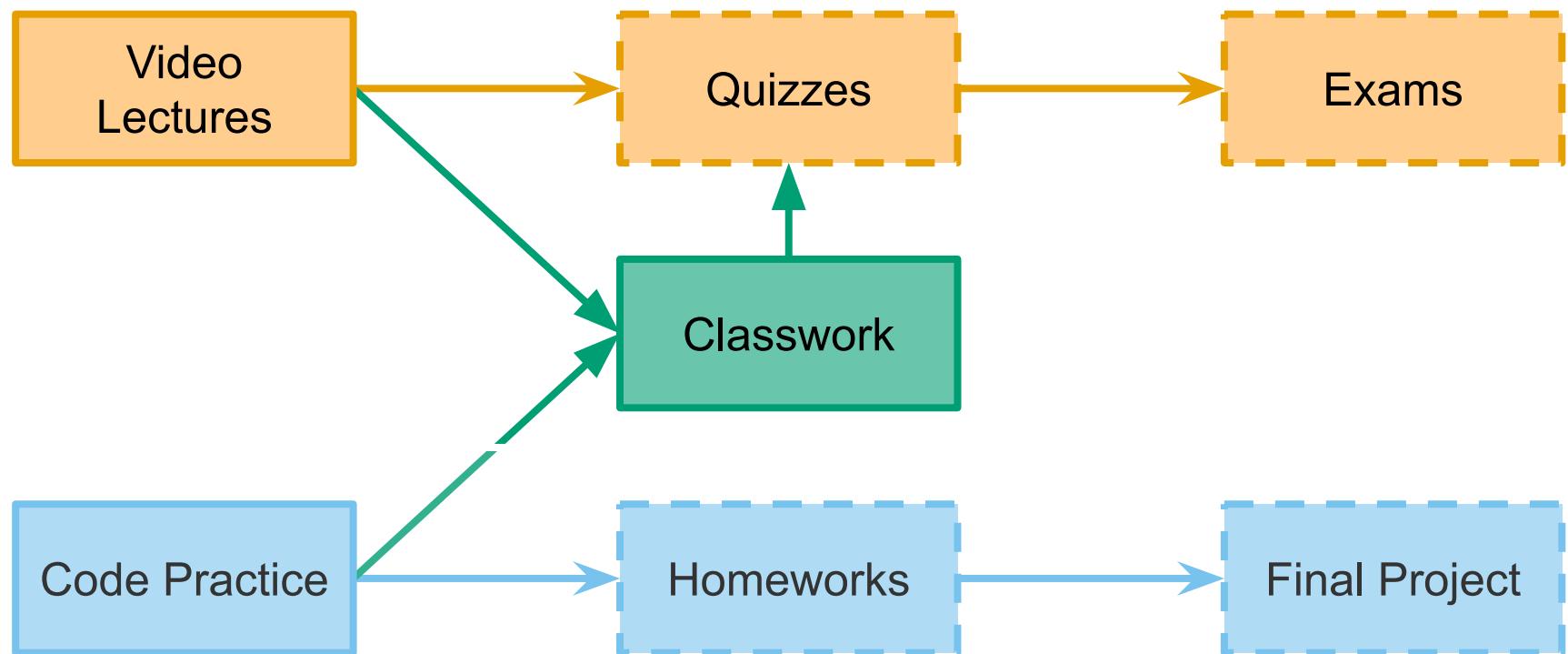
Outline



Outline



Outline



Late Policies

- **Eight** 24-hour extensions, no questions asked.
- You **MUST** fill out the **Google form** BEFORE the assignment/project is due (+ Add a **Comment** to your Canvas Submission)
- **0.15% per hour (or partial hour) penalty.**

Questions

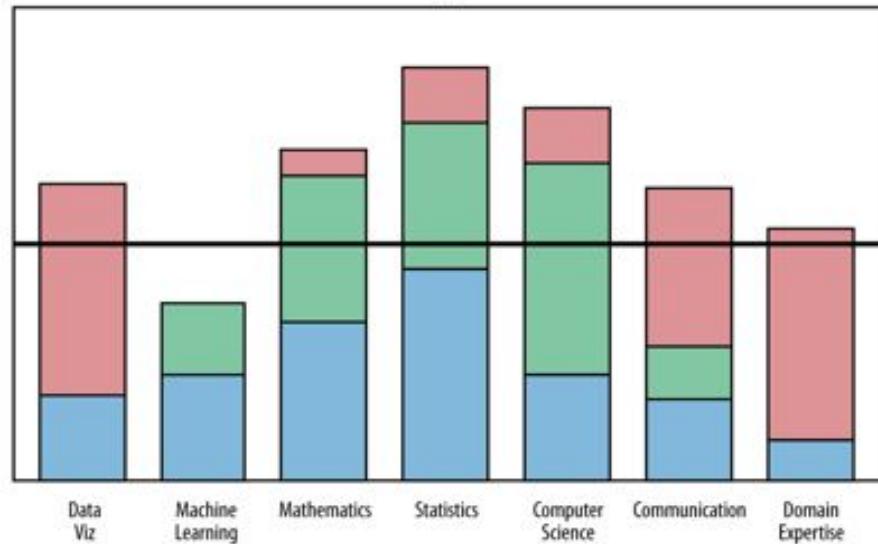
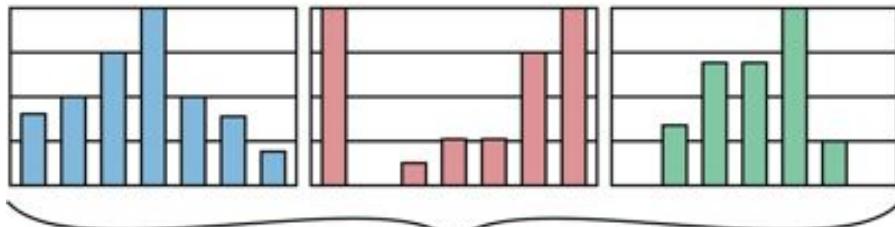
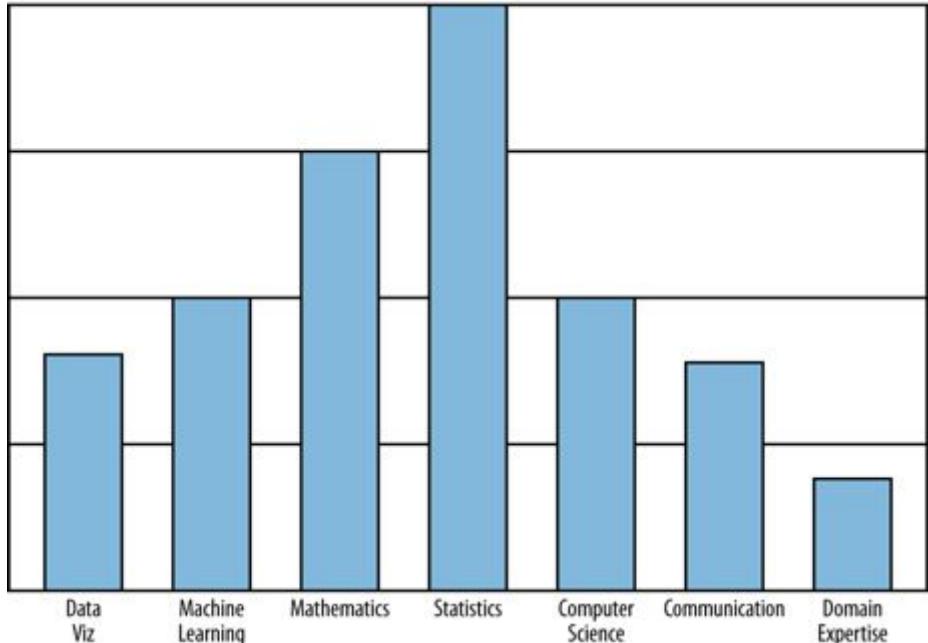
What is Data Science?



What do you think?

No one person can be the perfect data scientist, so we need teams.

Data Scientist Profile

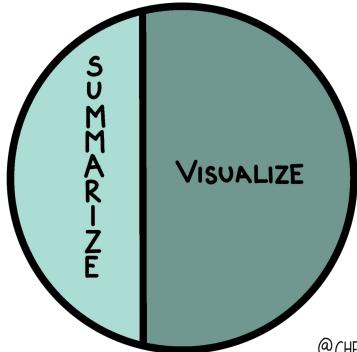


New York City Subway Diagram



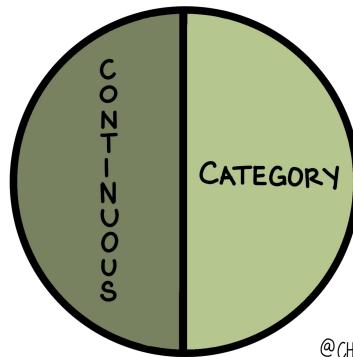
Algorithms

EXPLORE



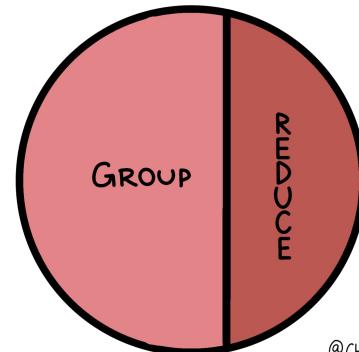
@CHELSEA PARLETT

PREDICT

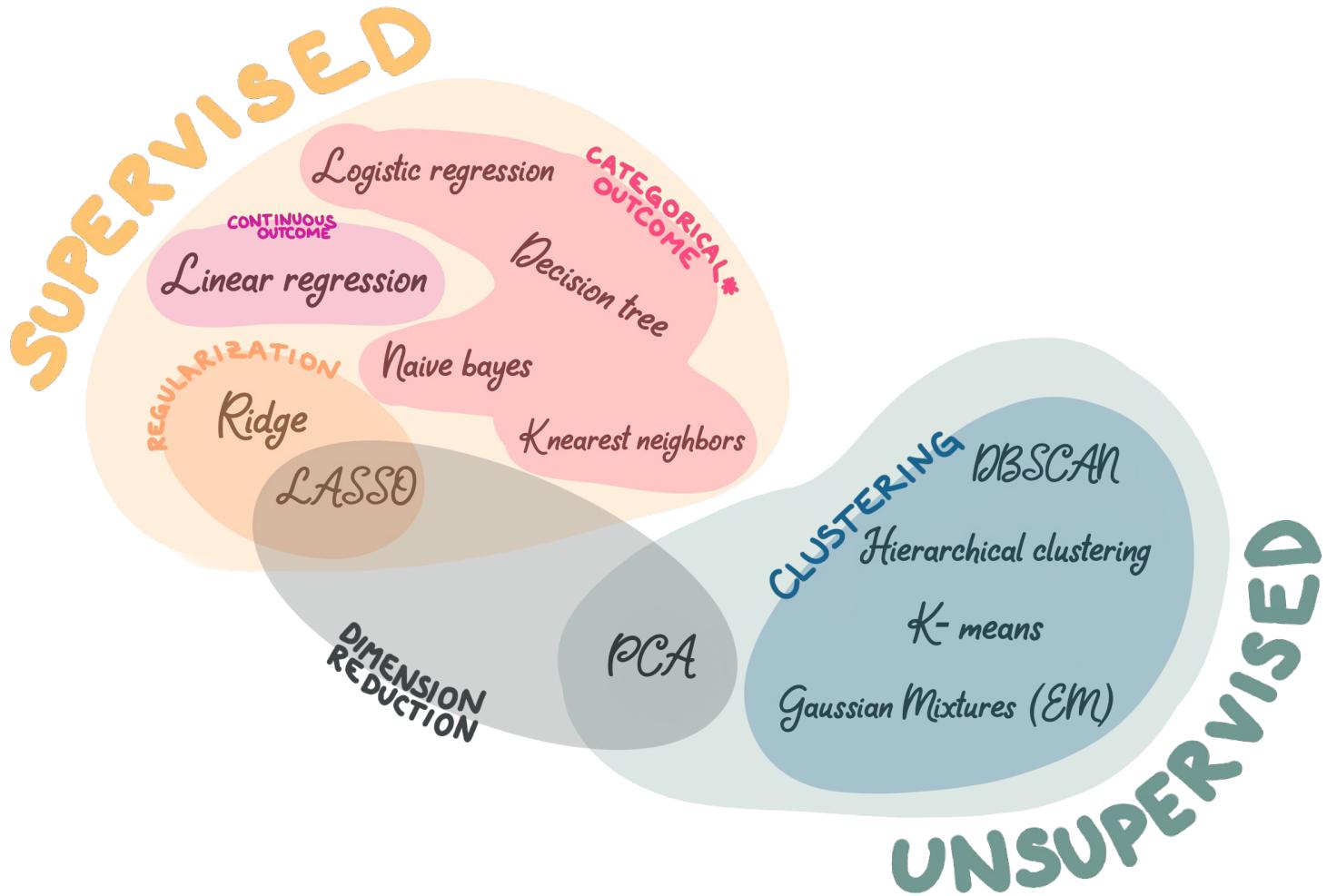


@CHELSEA PARLETT

SIMPLIFY



@CHELSEA PARLETT



How does Data Science affect the World?

- Ethics
- Communication
- Diversity

How to Implement Data Science?

BIG O Notation[®]
THE TEAM YOU TRUST[®]





Google Colab

colab