

# Welcome & Syllabus

Lecture 01

Dr. Colin Rundel

# Course Details

# Course Team

## Instructor

- Dr. Colin Rundel - [colin.rundel@duke.edu](mailto:colin.rundel@duke.edu) / [rundel@gmail.com](mailto:rundel@gmail.com)

## TAs

- Sam Rosen

# Course website(s)

- GitHub page - [sta663-sp26.github.io](https://sta663-sp26.github.io)
  - HTML, PDF, and qmds of Slides
  - Readings
  - Links to course tools
- Canvas - <https://canvas.duke.edu/courses/72267>
  - Announcements
  - Gradebook

# Course Timetable

- Lectures (weekly)
  - Tuesdays, 10:05 - 11:20 am - Old Chemistry 116
  - Thursdays, 10:05 - 11:20 am - Old Chemistry 116
  
- Labs (weekly)
  - Fridays, 10:05 to 11:20 am - Old Chemistry 116

# Labs

- Attendance is expected
- Opportunity to work on course assignments with TA support
- Labs will begin in Week 1 (January 16th) - no lab Week 0

# Grading

This course is assessed 100% on your coursework (there is no exam).

We will be assessing you based on the following assignments,

<b>Assignment</b>	<b>Type</b>	<b>Value</b>	<b>n</b>	<b>Assigned</b>
Homeworks	Team	30%	5/6	~ Every other week
Midterms	Individual	40%	2	~ Week 6 and 14
Project	Team	10%	1	~ Week 10
Quizzes	Individual	20%	10-12	~ Every week

# Teams

- Roughly biweekly homework assignments
- Open ended
- 5 - 20 hours of work
- Peer evaluation after completion
- Some later assignments will be language agnostic
- Expectations and roles
  - Everyone is expected to contribute equal *effort*
  - Everyone is expected to understand *all* code turned in
  - Individual contribution evaluated by peer evaluation, commits, etc.

# Collaboration policy

- Only work that is clearly assigned as team work should be completed collaboratively (Homeworks + Project).
- Individual assignments (Midterms) must be completed individually, you may not directly share or discuss answers / code with anyone other than the myself and the TAs.
- On Homeworks you should not directly share answers / code with other teams, however you are welcome to discuss the problems in general and ask for advice.

# Sharing / reusing code / AI policy

- We are aware that a huge volume of code is available on the web, and many tasks may have solutions posted.
- Unless explicitly stated otherwise, this course's policy is that you may make use of any online resources (e.g. Google, StackOverflow, etc.) but you must explicitly cite where you obtained any code you directly use or use as inspiration in your solution(s).
- Any recycled/copied code that is not explicitly cited will be treated as plagiarism, regardless of source.
- The same applies to the use of LLM like ChatGPT, Claude, Gemini, or GitHub Copilot - you are welcome to make use of these tools as the basis for your solutions but you must cite the tool when using it for *significant* code generation.

# Brief thoughts on AI tools

- AI tools are not a replacement for understanding the material, but they can be a tool to help you understand the material.
- Reading code and writing code are skills that take time and practice to develop - both are essential.
- Nature of the tools is changing rapidly - Autocomplete vs ChatBots vs Agentic

# Academic integrity

To uphold the Duke Community Standard:

- I will not lie, cheat, or steal in my academic endeavors;
- I will conduct myself honorably in all my endeavors; and
- I will act if the Standard is compromised.

# Course Tools

# Dept RStudio Workbench

[rstudio.stat.duke.edu](https://rstudio.stat.duke.edu)

- Browser based + consistent in hardware and software environments
- Local RStudio / Jupyter / VSCode / Positron installations are fine but we will not guarantee support
- Common issues:
  - If [This site can't be reached](#) make sure you are on a Duke network and are not use an alternative DNS service.

# Local Python + other environment

If working locally you should make sure that your environment meets the following requirements:

- Latest R (4.5.2)
- Recent Python (3.12 or newer) with working pip (or equivalent) - strongly recommend to use uv
- Working Positron or VS Code install
- working git installation
- ability to create ssh keys (for GitHub authentication)
- All packages should be updated to their latest version (assignments will include [requirements.txt](#) / [pyproject.toml](#))

# GitHub

- We will be using an organization specifically to this course  
<https://github.com/sta663-sp26>
- All assignments will be distributed and collected via GitHub
- All of your work and your membership (enrollment) in the organization is private
- We will be distributing a survey this weekend to collection your account names
  - Next week you will be invited to the course organization.

# Before next Wednesday

- Create a GitHub account if you don't have one
- Complete the course survey (you will receive before next Wednesday)
- Make sure you can login in to the Department's RStudio server ([rstudio.stat.duke.edu](https://rstudio.stat.duke.edu))
- Launch and play around with Positron
  - Make sure you are able to launch a Python interpreter session
  - Quick `uv` python setup, in terminal run:

```
uv python install 3.14
uv python pin 3.14
uv python update-shell
```