

Statistics REU Schedule

May 27 – July 31, 2025

All times are EST (New York Time)

Updated: May 10, 2025

There will be some common activities where everyone will participate but Individual Research Teams will set up their own research meetings once the research teams are formed

Program Schedule (will be updated regularly)

All events will be in Petty 150 unless noted otherwise

Important Notes:

- It will be a fairly intense program, and students are required to attend all events.
- Students should not pick other jobs or classes during the entire duration of the program
- Missing program related events without permission can lead to dismissal from the program.
- Please make sure to bring your laptops.
- Most of the afternoons after Week 2 will be free to work on research projects independently, or as arranged with your mentors, except for invited lectures whose date/time will be on the schedule.
- There will be some common working lunches or dinners (about once a week) as described in the program details. Such meetings will include interactions with an invited speaker or discussion on some professional development related issues such as graduate school admission, seeking letters of reference, preparing a good presentation, working in the industry as opposed to the academy etc.
- Attending these working meals will be mandatory.
- We will have about 4-5 teams of about 2 students in each team. Teams will be finalized early in Week 2.
- All of the mentors will give two research talks during Week 1. Students should discuss their interests with mentors towards the end of Week 1 or early in Week 2 and email Dr. Gupta their top three project/mentor choices by June 2. Research teams will be announced on June 3.

- **Please use the following Teams link for virtual meetings and some invited talks**

<https://teams.microsoft.com/meet/2231989320815?p=cS3e20hKI3CQyoKAyN>

Week 1:

May 27, Tuesday

10:00–10:30

Refreshments

10:30 -11:30

Welcoming Remarks

- **Remarks by the Program Director Dr. Sat Gupta**
- **The REU students introduce themselves - name, home institution and career goals.**
- **Remarks by CAS Dean Dr Amy Adamson**
- **Remarks by Math Stats Department Head Dr. Scott Richter**
- **Comments by mentors**
- **Information provided by office staff Leslie/Denise**
- **Each mentor will give two talks, an introductory talk and a more technical talk. Use these talks to make up your mind on which mentor you want to work with**

11:30 -12:30

First Technical talk - Drug safety signal detection in post-marketing clinical data – Dr. Jianping Sun, Assistant Professor of Statistics, UNC Greensboro

12:30 – 1:30

Common Working Lunch with an opportunity for students to ask questions on any and all topics.

1:30 – 3:00

Introduction to Python – Dr. Dan Yasaki, Professor of Mathematics, UNC Greensboro.

3:00 – 4:00

Work with Denise Greenwell to get UNCG ID cards, if you don't already have one.

May 28, Wednesday

10:00 -11:00

An Introduction to the Shape of Data: Dr. Thomas Weighill, Assistant Professor of Mathematics, UNC Greensboro

11:30 -12:30

Introduction to Randomized Response Models – Dr. Sat Gupta, Professor of Statistics, UNC Greensboro

1:30 -3:00

Introduction to LaTeX – Dr. Dan Yasaki, Professor of Mathematics, UNC Greensboro

May 29, Thursday

10:00-12:00:

R-Workshop 1: Dr. Scott Richter, Professor of Statistics & Department Head, UNC Greensboro

1:30 – 2:30:	RRT Work by Recent REU Students - Dr. Sat Gupta, Professor of Statistics, UNC Greensboro
3:00-4:00	An Introduction to methods of mixed paired and unpaired designs: Dr Scott Richter, Department Head and Professor of Statistics, UNC Greensboro

May 30, Friday

10:00 – 11:00	Improving The Robustness of Shape Discovery in Geospatial Data: Dr. Thomas Weighill, Assistant Professor of Mathematics, UNC Greensboro
11:30 – 12:30	Complex systems and their optimization: Dr. Kushani De Silva, Assistant Professor of Mathematics, UNC Greensboro
1:30 – 2:30 -	Advanced statistical method in detecting drug-AE associations. Jianping Sun – Assistant Professor of Statistics, UNC Greensboro
3:00-4:00	Research directions: mixed paired and unpaired designs:- Dr. Scott Richter, Professor of Statistics & Department Head, UNC Greensboro

Students set up individual meetings with mentors during the open time slots to discuss project selection. Email Dr Gupta your top 3 mentor choices by 6:00 pm on June 2

Other Task for Week 1:

- **Complete CITI Training (Students and Mentors) and Self-Evaluation Pre-Surveys (Students). Surveys will be emailed to the students closer to the start of the program. Return completed surveys via email to Dr. Gupta by May 31, 5:00 pm**
- **Complete CITI Training on Responsible Conduct of Research. Register first and then choose RCR for Social and Behavioral Sciences (or something similar). See the link <https://www.citiprogram.org>**

Mentors also need to complete this training. Once done, please email Dr Gupta a copy of the completion certificate latest by May 31, 5:00 pm

Please see the options offered by UNCG office of integrity:

<https://integrity.uncg.edu/rcr-training-resources/>

If you try to log in from your campus, you may be asked to pay for the course. In that case, wait until you get a UNCG id and use that to complete this training.

Week 2:

June 2, Monday

10:00-11:00	PhD Dissertation Defense by Michael Parker, (advisor Dr Sat Gupta), 150 Petty Building
11:30 – 12:30	Can we explain why some languages die: Dr. Kushani De Silva, Assistant professor of Mathematics, UNC Greensboro
3:00 – 5:00	R-Workshop 2: Dr. Scott Richter, Professor of Statistics & Department Head, UNC Greensboro

Email your mentor choices to Dr Gupta by 6:00 pm

June 3, Tuesday

10:00 – 11:00	Community Engagement with Statistics, Dr. Sat Gupta, Professor of Statistics, UNC Greensboro
11:00-11:30	Research teams announced
11:30 -	Students meet with their mentors

From here on, start setting up research meetings with mentors but avoid times when we have common events.

June 4, Wednesday

2:00 -3:00	The Art and Science of Great Presentation – Dr Igor Erovenko, Associate Head & Professor of Mathematics, UNC Greensboro
3:30 – 4:30 (Teams)	Ridge regression, the Lasso, $p \gg n$ regression, and related topics – Dr. David Banks, Professor of Statistics, Duke University

June 5, Thursday

1:00 – 2:00

How relevant is the statistical evidence to the truth of a statement? – Dr. David Bickel, Professor in Informatics and Analytics, UNC Greensboro.

2:30-4:00 (Teams)

Experiences of Previous REU Students – Host Dr. Sat Gupta

Bailey Meche (2023 REU) - Doing Grad work at University of Chicago

Joia Zhang (2021 REU) - Doing PhD at Cornell)

Grace Rhodes – (2021 REU) - Doing PhD at Duke

Max Lovig (2020 REU) – Currently doing PhD at Yale

June 6, Friday

10:00 – 12:00

Walk in the Battleground Military Park, a place of historical significance where one of the final battles of the Civil War was fought. There is an auditorium where you can watch a documentary if it is running that day. It starts 45 minutes past the hour.

Meet at the Military Park parking lot at 9:30 and walk the park.

2332 New Garden Rd, Greensboro, NC 27410

Documentary at the auditorium at 10:45

Working Lunch at Saffron India at 11:45

1500 Mill St #104, Greensboro, NC 27408

2:30 – 3:30

Graduate School Admissions - Dr. Greg Bell, Dean Graduate School, and Professor of Mathematics, UNC Greensboro

Week 3:

- **Work with mentors on your projects**

- Prepare your basic 15-minute presentation for June 12. It can be on any topic of your choice. We want to see how you organize your talk around your chosen theme, how good your slides are, and how confidently you deliver your talk.

June 9, Monday

1:00 – 2:00

Publishing Journal Articles – Dr. Sat Gupta

June 10, Tuesday

June 11, Wednesday

June 12, Thursday

Mentors – please attend.

10:00-11:30

4 of the students (Aniyah Wesley, Benjamin De La Torre, Benjamin Yam, Isabel Cole, in that order) make 15-minute PPT presentations on a topic of their choice. Mentors will provide feedback on students' presentations.

12:00 -1:00

3 of the students (Mala Gupta, Nikita Jayraj, Nathan Kellerman, in that order) make 15-minute PPT presentations on a topic of their choice. Mentors will provide feedback on students' presentations.

1:00-2:00

Common working lunch in Petty 150

2:00 – 3:00

3 of the students (Michael Gao, Sean Anderson, Daniel Blackston, in that order) make 15-minute PPT presentations on a topic of their choice. Mentors will provide feedback on students' presentations.

June 14/15

**Attend AISC 2025 Symposium at UNC Greensboro
See the website: <https://mathstats.uncg.edu/aisc-symposium-2025/>**

There will be many invited talks and a banquet dinner in the evening on June 14. More invited talks on June 15 morning.

June 14

Invited talk by Dr. Kumer Pial Das, Professor of Statistics & AVP for Research and Innovation, University of Louisiana at Lafayette. Location TBA

Week 4

June 16, Monday

12:00-1:00

Invited talk by Dr. Frank Coolen, Professor of Statistics, Durham University, UK

1:00 – 2:00

Common Working Lunch in Petty 150

June 19, Thursday

10:30 – 11:30

IRB Talk on Human Surveys – Megan Barton, IRB Compliance Coordinator, Office of Research Integrity. To be confirmed!!

June 20, Friday

2:00 – 3:00 (Teams)

Working in the Industry - Dr. Qi Zhang, Senior Manager, Data Analytics and Reporting Team at Alexion - AstraZeneca Rare Disease Unit.

Start preparing for Mid-Program team presentations on Friday, June 27. Schedule will be sent later. Each research team will make a 20 - minute presentation discussing the problem the team is working on, and progress made. These will be team presentations and not individual presentations.

Week 5

June 23, Monday

10:00 -11:00 (Teams)

Preparing for a Successful Career – Dr. John Stufken, Professor of Statistics at George Mason University

June 27, Friday

Mid-Program Presentations

11 :00 – 12:30 **Three teams present their work**

12:30 -1:30 **Working Lunch**

2:00 – 3:30 **Two or three teams present their work**