

**ST518 Syllabus**  
**Fall, 2021**  
**Statistical Methods II**

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<b>Office Hours:</b>	Wednesday, 3:30-5pm, Thursday, 4:00-5:00 (subject to change)
<b>Teaching Assistant:</b>	Samsul Alam (malam3@ncsu.edu)
<b>TA Office Hours :</b>	Monday 7pm-8pm, Friday 10-11:30 am
<b>Prerequisite :</b>	ST517 or equivalent
<b>Course website :</b>	All materials, announcement and assignments will be posted on or submitted using moodle. An NCSU unity id and password will be required to log on to the course webpage through <a href="https://wolfware.ncsu.edu">https://wolfware.ncsu.edu</a>
<b>Course Description :</b>	This is an applied course that introduces linear models with factorial effects used to analyze data from designed experiments and regression models to analyze data from observational studies. Experimental design is also covered, with an introduction to complete block, latin square, crossed and nested factorial designs and split-plots
<b>Software Requirement:</b>	SAS or R or any statistical software package. NCSU students may obtain SAS through the NCSU IT website: <a href="https://software.ncsu.edu/supplied_software/sas/">https://software.ncsu.edu/supplied_software/sas/</a>
<b>Textbooks(suggested):</b>	<ul style="list-style-type: none"><li>• Statistical Research Methods in the Life Sciences, by PV Rao, ISBN=0-534-93141-3</li><li>• An Intro to Statistical Methods and Data Analysis (6<sup>th</sup> edition), by Ott and Longnecker, ISBN: 978-0-495-01758-5</li><li>• Statistics for Research, (3<sup>rd</sup> edition) by Dowdy, Wearden and Chilco, ISBN=0-471-26735-X</li></ul>
<b>Lecture notes:</b>	Posted topic-by-topic on moodle. Spaces may appear liberally in these notes. The appropriate information to enter in these spaces will be delivered during lecture.

**Graded Coursework:**

- A course gradebook will be privately visible on moodle.
- Graded work is comprised of the following elements

Requirement	Proportion
Homework Assignments (10)	3% each, total is 30%
Midterm Exam	30%
Final Exam	40%

- Students achieving
  - $\geq 90\%$  of the total points will receive an A- or better
  - $\geq 80\%$  of the total points will receive an B- or better
  - $\geq 70\%$  of the total points will receive an C- or better
  - $\geq 60\%$  of the total points will receive an D- or better

**Homework:** Homeworks must be submitted through portal on moodle. Please submit as pdf or plain text or a scanned image, but not MS Word. Homeworks will be due every Friday afternoon by 5pm. **Note:** Homeworks that are submitted within 48 hours of the due date will have a penalty of 20 points (out of 100). Homeworks more than three days late cannot be accepted.

**Exams:** Exams are in-person, on paper and closed book, but two-sided pages of handwritten notes and formulas are allowed (one such page for Midterm, two for Final.) Two one-sided pages is NOT permitted. These notes will be collected after completion of the exam. Calculators are permitted.

- The Midterm Exam window will be **Thursday, Sept. 30 - Friday, Oc. 1**. Please allot two hours.
- The Final Exam window will be **Monday, Dec. 6 - Tuesday, Dec 7**. Please allot three hours.
- One handwritten page of notes (double-sided) may be used for reference on the Midterm Exam.
- Two handwrittend pages of notes (double-sided) may be used for reference on the Final Exam.

Please see note at end of syllabus regarding DELTA's proctoring of exams.

**Academic Integrity:** Academic misconduct, such as cheating on exams will not be tolerated. Please see the NCSU policy at this link: <http://policies.ncsu.edu/policy/pol-11-35-01>

### Course content/approximate schedule:

Subject	Weeks
Simple and Multiple Linear Regression	1-3
Factorial experiments, ANCOVA	4-6
Multi-factor experiments	7-9
Block designs	10-11
Random and mixed effects	12-14
Split-plots, logistic reg	14-15

### Additional notes

- As we learn, we will probably have questions. The following resources are available to help us get answers and additional information:
  1. the General Discussion Forum on moodle
  2. Office hours
  3. Email (for administrative matters only, not for explaining material)
  4. Phone (919 515 1922), (on a limited basis).
- Disputes about grades must be put in writing within two days of receipt of the grade on any homework or exam.

## Exams Proctored by DELTA

Exams will be proctored by [testing-services.delta.ncsu.edu](https://testing-services.delta.ncsu.edu). A proctor is an impartial third party who verifies the identity of the student and ensures the academic integrity of the exam. **Local students** - DELTA Testing services will offer exams for on-campus students at one of the local test centers. Please visit the DELTA Testing Services website for [testing-services.delta.ncsu.edu](https://testing-services.delta.ncsu.edu).

- <https://testing-services.delta.ncsu.edu/on-campus-make-an-appointment/> Exams at the DELTA Test Centers are by **appointment only**. To schedule your appointment, visit <https://testing-services.delta.ncsu.edu/on-campus-make-an-appointment/>
- **Step 2: Come Prepared.**
  - Bring a photo ID.
  - Note pages will be collected after exams. Make a copy of any notes before coming to the test center.

**Students with Accommodations** - If you have approved accommodations with NC State's Disability Resource Office (DRO), DELTA Testing Services wants to ensure that you receive the appropriate accommodations when you go to the test center.

- Students *must* fill out the DELTA <https://apps.delta.ncsu.edu/proctoring/accommodations/> for each course in which accommodations are received **prior to making an appointment**. Once DELTA has processed your request(s), a confirmation email will be sent informing you that your accommodations have been processed and your appointments can be scheduled. *Appointments must be made at least 4 hours in advance.*
- If you have already scheduled your appointment before your accommodation request has been processed, please confirm your appointment does not exceed the Test Center closing time.

**Off-campus students** — DELTA Testing Services will oversee the process of approving an off-campus proctor, sending all exam materials, and receiving any materials from your proctor.

- <https://testing-services.delta.ncsu.edu/off-campus-submit-request/> To use an off-campus proctor for an exam, you must submit an online request and it must be approved by DELTA Testing Services. Submit your request at least 7 days before your exam window. Most exam material is sent 2 - 3 business days before the exam window.
  - Pre-approved proctors are marked on the website's interactive map and are selectable in a drop-down menu in the request form.
  - If you do not see a pre-approved option in your area, it is your responsibility to find a proctor who meets the guidelines. When submitting a request, if your proctor is not pre-approved, select "other" and fill in the remote proctor's information. (Please double-check the remote proctor's email address.)

If you have any additional questions contact [deproctor@ncsu.edu](mailto:deproctor@ncsu.edu) or call 919.513.1513