# MAT 313/MAT 524 ABSTRACT ALGEBRA I

FALL 2022

**Instructor:** Lisa Berger
**Office:** Math 4-100A
**Email:** Lisa.Berger@stonybrook.edu
**Web page:** `http://www.math.sunysb.edu/~lbrgr/`
**Current Office Hours:**

Tuesdays: 10:30-11:30 in 4-100A
Thursdays: 3:00-4:00 in 4-100A
By appointment. Please send email to schedule.

Office hours may be adjusted to accommodate the instructor's schedule and/or student needs. Students unable to meet during scheduled office hours are encouraged to schedule an appointment with the instructor.

**Grader:** Yao Xiao
**Email:** Yao.Xiao@stonybrook.edu

**General Information.** This is an introductory course in algebra, a requisite tool in advanced mathematics and a beautiful field of its own. We will study the theory of groups, rings and fields, focusing primarily on the material in Parts 2 through 4 of the textbook. A primary emphasis of this course will be on understanding definitions, proof and writing mathematics. You should be prepared to work through a lot of problems, prove your results and write your work clearly and accurately. Course information will be posted regularly to the course web page: `http://www.math.stonybrook.edu/~lbrgr/MAT313Fall2022.html`. Students are expected to attend class regularly and are responsible for all announcements made in class or posted to the course page.

**Pre-requisites.** A *minimum* pre-requisite for this course is completion of MAT 200 and at least one upper-division mathematics course involving proof. In particular, mastery of the material in Section 0 of the textbook is assumed.

**Textbook.**
We will be using the ninth edition of *Contemporary Abstract Algebra* by Joseph Gallian. You may be able to find some supplemental on-line material, such as practice quizzes, on Gallian's home page.

**Homework/Class Work/Quizzes.**
Homework is an essential component of the course. Homework will be assigned and collected regularly, and selected problems will be graded. Homework is due, in class, at the beginning of the class period, and late homework will not be accepted. Announced and/or unannounced quizzes may be given, and there may be assignments completed and collected during class. Students are expected to be present for class, and missed

quizzes or classwork may not be completed for credit. The lowest 2 scores in the homework/classwork/quiz category will be dropped.

Graduate students enrolled in MAT 524 may be assigned additional HW problems.

Each student enrolled in MAT 524 is expected to complete a short project and presentation. Details to be provided.

A significant part of doing mathematics is *communicating* mathematics. Homework is expected to be clear and grammatically correct, in addition to mathematically accurate. Homework not meeting this criteria may be returned ungraded.

You are encouraged to work together, but submitted written assignments must be your own writing and represent your own understanding. If you need clarification on these statements, please ask.

**Exams.**
There will be two midterms exams and a final exam. Exam 1 is *tentatively* scheduled for Thursday, September 22. Exam 2 is *tentatively* scheduled for Thursday, November 3. The **final exam** is as scheduled by the University: Wednesday, December 14, 11:15 am - 1:45 pm.

**Final Grades.** Your final grades will be based on the following:

(1) Exam 1: 20%
(2) Exam 2: 20%
(3) Homework/Quizzes/Classwork: 30%
(4) Final Exam: 30%

**Academic Integrity.**
Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at: `http://www.stonybrook.edu/commcms/academic_integrity/index.html`

Submitting solutions obtained from the internet is representing someone else's work as your own; to do so is a violation of the policy on academic integrity.

If you do not understand the policy on academic integrity, please ask for clarification.

**Student Accessibility Support Center Statement:** If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at sasc@stonybrook.edu. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information go to the following website: `https://ehs.stonybrook.edu//programs/fire-safety/emergency-evacuation/evacuation-guide-disabilities` and search Fire Safety and Evacuation and Disabilities.

**Critical Incident Management.** Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Student Conduct and Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.