Syllabus for MATH 466/ MATH 566 Topics in Algebra II, Spring 2026

Instructor: Dr. Chelsea Walton

Email: notlaw@rice.edu.

Course website: https://math.rice.edu/~notlaw/teaching.html#current

Lecture Days, Times, and Location: T Th 9:25AM - 10:40AM in HBH 427.

Office Hours: By appointment.

Prerequisite courses: MATH 356, and MATH 357 (can be taken concurrently)

Textbook: Symmetries of Algebras, Volumes 1 and 2 by C. Walton. Volume 1 is available for purchase and a free version can be found in the link below. A physical copy of Volume 2 (draft) will be distributed. Book series website: https://math.rice.edu/~notlaw/symalgbook.html

Course Objectives: Successful students will gain experience with concepts and methods of abstract algebra and category theory at the graduate level. See the Teaching Schedule for more details on the algebraic and categorical structures covered in the course.

Lecture Notes: Lecture notes will be provided via Dropbox. See 'Welcome Email' for the link.

Course Grade: The course grade will be based on a fixed points system via Editing and Homework points, where once a student earns points, the points cannot be lost. The final grade will be assigned as follows.

100+ points***:	A+
60 - 99.99 points:	A
50 - 59.99 points:	A-
40 - 49.99 points:	B+
30 - 39.99 points:	B
20 - 29.99 points:	B-
10 - 19.99 points:	C+
5 - 9.99 points:	C
0 - 4.99 points:	Will not pass.

*** For an A+, there must be at least 12 points from each of HWs #5–7.

Editing points: Students may earn up to 10 points by locating in the Volume 2 draft either typographical errors (for **1 point** each) or mathematical errors (for **2 points** each). These corrections may be submitted at any time until the due time of Homework #8. These points will only be awarded to one student per correction, on a first-come first-serve basis. Students are encouraged to discuss potential edits with peers so that these points can be shared.

Homework points: There will be 8 homework sets, with due dates and due times provided on the Teaching Schedule. Homework solutions should be **submitted via email**. You will receive instructions in the Welcome Email.

The problems on each homework set are **ALL OPTIONAL**, with most problems worth between **1–4 points** each. Please choose your homework sets based on your interests.

Late homework sets will be accepted up to 72 hours past the due time. If the set is submitted up to 24 hours (resp., between 24.01– 48 hours, or between 48.01– 72 hours) late, then the total points value will be decreased by 25% (resp., 50%, or 75%).

Handwritten, tablet, and Latex solution sets are all acceptable. The solutions sets should be neat, legible, and correct (to the best of your ability). Students are expected to write up their own solutions, and to acknowledge any references (to theorems, exercises, etc.) and collaborations with peers when pertinent. AI assistance with homework assignments is not permitted, unless explicitly stated otherwise. The instructor values creative and original solutions, and this is taken into account for assessment needed after the end of the course (e.g., in letters of recommendation or in general academic support).

Academic calendar: See: `https://registrar.rice.edu/calendars/spring-semester-2026`.

Covid-19/ Illness policy: Please keep your classmates healthy by not attending class ill (with a cold, Covid-19, or otherwise). Wearing masks in class is not required. Assignment and assessment arrangements for long-term, symptomatic illness will be accommodated.

Disability Accommodation: Any student who has a need for accommodation based on the impact of a disability should contact me privately to discuss the specific situation as soon as possible. Students should also contact Disability Resource Center (DRC) at `adarice@rice.edu` or 713-348-5841 to obtain a Letter of Accommodation to present to me and to learn about further resources: `https://drc.rice.edu/`.

Statement on Collegiality, Respect, and Sensitivity: The Department of Mathematics supports an inclusive learning environment where diversity and individual differences are understood, respected, and recognized as a source of strength. Racism, discrimination, harassment, and bullying will not be tolerated. We expect all participants in mathematics courses (students and faculty alike) to treat each other with courtesy and respect, and to adhere to the mathematics department standards of collegiality, respect, and sensitivity (`https://mathweb.rice.edu/department-statement-collegiality-respect-and-sensitivity`) as well as the Rice Student Code of Conduct. If you think you have experienced or witnessed unprofessional or antagonistic behavior, then the matter should be brought to the attention of the instructor and/or department chair. The Ombudsperson is also available as an intermediate, informal option, and contacting them will not necessarily trigger a formal inquiry.

Title IX Responsible Employee Notification Rice University cares about your wellbeing and safety. Rice encourages any student who has experienced an incident of harassment, pregnancy discrimination or gender discrimination or relationship, sexual, or other forms interpersonal violence to seek support through The SAFE Office. Students should be aware when seeking support on campus that most employees, including myself, as the instructor/TA, are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. For more information, please visit safe.rice.edu or email titleixsupport@rice.edu.