

**Theory of Groups**

$$[\rho, \sigma^G] = [\rho|_H, \sigma]$$

**POLICIES/SYLLABUS****Instructor**

Eric Moorhouse, Ross Hall 6<sup>3</sup> = 216.

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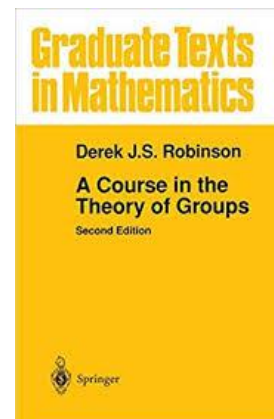
**Class Meeting**

MWF 11:00–11:50am in CR 144. I do record pdf slides of lectures, and audio/video recordings, for your future reference. These will be posted through the course website (see below). Do not take this as an invitation to skip class without good reason.

*Students who consistently attend class perform on average a full letter grade better than students who do not.* Classroom behavior is relaxed: use your laptops and devices as needed, as long as you are not disturbing me or others. If you arrive late or leave early, or need to excuse yourself during class, I will assume you have a good reason for doing so and this should not bother me. We will only revisit this policy if the need arises.

**Office Hours**

My office hours are currently scheduled at MWF 10:00–10:50am, T 2:30–3:50pm (subject to change; my current schedule is posted at <https://ericmoorhouse.org/schedule.html>).

**Textbook**

Derek J.S. Robinson, *A Course in the Theory of Groups*, 2<sup>nd</sup> ed., Springer, 1996.

**Grading Scheme**

On the right, I indicate the default grading scheme if you do not want to present any material in class. If you would like to present a topic as part of your course grade, please speak with me during the first half of the semester and we will try to agree on a

10%	Participation
90%	Homework
negotiable	Presentation

suitable topic and resources for you as you prepare. I will assign grades at the end of the semester according to the scale: A=exceptional, B=very good, C=adequate, D=poor, F=fail, W=withdrawal. I always encourage students to consult me at any time during

the semester with questions, including (but not restricted to) questions about your progress in the course. You may ask questions by email; but questions asked in person typically receive more prompt and complete answers.

**Homework:** Homework may be discussed with others, but must be written up individually. As mentioned above, students may elect to present a topic during the semester, for a portion of the grade; if this is of interest to you, please discuss this with me as soon as possible and we will arrange topic, dates, and how much of your grade to devote to the presentation. **Do not use Chegg, ChatGPT or other AI.**

**MATH 5530 Website:** Please bookmark the site <https://ericmoorhouse.org/courses/5530/> where I will try to post class recordings, and announcements relevant to our class, including reminders of homework assignments; etc. This is our official course website (as distinct from the WyoCourse site which will only be used when security is required, e.g. for posting grades on individual homework assignments or sharing files subject to copyright).

**Content:** Topics to be covered will depend largely on the range of students' backgrounds and interests. Our main topic is usually character and representation theory; but it may not be suitable to include this if several students have already seen it and several others have not. Next priorities to cover include

- Free groups
- Group Presentations
- Algorithmic Group Theory
- Classical Groups
- Introduction to CFSG (the Classification of Finite Simple Groups)
- Group Actions

Please let me know if there are topics you particularly wish to see included.

**Students with Disabilities:** If you have a physical, learning or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability, to the University Disability Support Services (UDSS) in SEO, Knight Hall.

**Academic Freedom and Institutional Discrimination:** UW Regulation 2-15 on Academic Freedom states, "Academic freedom in teaching protects the rights of Academic Personnel to teach according to their expertise. Academic Personnel are entitled to freedom in discussing their subject. Academic Personnel have a responsibility to ensure that their teaching is effective and consistent with the standards of the discipline, understanding that disciplines may have diverse points of view on any given subject. Teaching may involve controversial material; however, with academic

freedom in the classroom, Academic Personnel also have the responsibility to respect others' freedom to express disagreement and alternative opinions." Additionally, "Academic freedom does not negate the rights of students and the public to disagree with Academic Personnel's work, although students are expected to learn material with which they may disagree." Also adopted by UW in its Academic Freedom policy, "Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled."

**Green Dot Program at UW:** Here at The University of Wyoming, we are committed to reducing and preventing power-based personal violence such as sexual assault, relationship violence, and stalking. Green Dot is a bystander intervention program to reduce these forms of violence with one thought: If everyone does one thing, no one will have to do everything. A Green Dot is your choice at any moment to make campus safer by promoting safety for everyone and letting others know that you will not tolerate violence. A Green Dot is any behavior, choice, word or attitude that sends a clear message that (1) Violence is not okay with you; and (2) Everyone is expected to do their part. Additional information on Green DOT training and resources are available at <https://www.uwyo.edu/greendot/>

**Duty to Report:** UW faculty are committed to supporting students and upholding the University's non-discrimination policy. Under Title IX, discrimination based upon sex and gender is prohibited. If you experience an incident of sex- or gender-based discrimination, we encourage you to report it. While you may talk to a faculty member, understand that as a "Responsible Employee" of the University, the faculty member MUST report information you share about the incident to the university's Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to offer privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at <https://www.uwyo.edu/reportit>

**Academic Honesty:** Academic dishonesty will not be tolerated in this class. Cases of academic dishonesty will be treated in accordance with UW Regulation 2-114. The penalties for academic dishonesty can include, at my discretion, an "F" on an exam, an "F" on the class component exercise, and/or an "F" in the entire course. Academic dishonesty means anything that represents someone else's ideas as your own without attribution. It is intellectual theft (stealing) and includes (but is not limited to) unapproved assistance on examinations, plagiarism (use of any amount of another person's writings, blog posts, publications, and other materials without attributing that

material to that person with citations), or fabrication of referenced information. Facilitation of another person's academic dishonesty is also considered academic dishonesty and will be treated identically.

**Syllabus Changes:** This syllabus is subject to change. Updates to this syllabus will appear electronically on the course website, and you will be alerted by email.