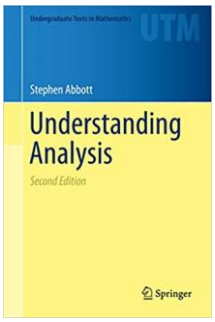
POLICIES/SYLLABUS

Instructor: Eric Moorhouse, Ross Hall $6^3 = 216$, http://ericmoorhouse.org, email moorhous@uwyo.edu, phone (307) 766-4394.

Meets: TR 11:10 am–12:25 pm. Zoom link available on WyoCourses.

Prerequisite: Grade of C or better in Math 2205 (Calculus II) and Math 2800 (Math Majors Seminar).



Textbook: S. Abbott, *Understanding Analysis*, 2nd ed., Springer, 2015. You will be expected to keep up with assigned readings from the textbook.

Course Delivery: Online hybrid (synchronous and asynchronous). I will provide a series of instructional videos covering much of the content of the course. These you may watch on your own time. During the scheduled class times, we will meet on Zoom; and during the regular class sessions, our priority will be on working through practice problems and answering questions. Class sessions will be recorded, and these recordings will also be made available to you for review offline. In order to maximize your learning outcomes for this class, it is recommended that you participate in both the synchronous and the asynchronous opportunities as much as possible, although attendance during scheduled classes will not be required. You definitely should watch the videos because much of this content will not be repeated during class time; likewise if you are unable to attend a scheduled class, you are advised to review the class recording during your own time.

Office Hours: MW 2:30–4pm; R 9:30–10:50am. In addition to my regularly scheduled office hours, please feel free to see me at other times, either by appointment or at other times if I am not busy. My current schedule is posted at http://ericmoorhouse.org/schedule.html. The Zoom link for office hours is available on WyoCourses.

Grading Scheme:

I will assign grades (A, B, C, D, F, W) *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, at your own risk (remember that email is not secure); but questions asked in person typically receive more prompt and complete answers. Grades for course assignments (in our case, homework) may be checked on WyoCourses but be warned: WyoCourses does not supply letter grades for the course. For further information regarding assignment of letter grades, refer to the FAQ (see below) and consult with the instructor.

50%	**Written Homework**
50%	**Oral Discussion**
100%	**Total Grade**

Homework:

Homework is a vital part of this course. Mathematics, more than most subjects, is one which you learn not by listening and absorbing, but by trying out yourself. The learning of mathematics is also more sequential than that of other subjects … so all the more need to be regular in doing problems yourself! Homework assignments will be assigned approximately once per week, and will be submitted to me through WyoCourses by specified due date (usually after 2–3 classes) by 5:00pm. The following expectations apply to submitted homework:

- Write clearly. Part of the grade reflects organization and clarity of presentation.
- Most solutions require sentence answers. Correct use of vocabulary, spelling, grammar, and punctuation is expected for full credit.
- There is no need to re-write questions.

It is fine for you to discuss the homework with other students. However, please do not copy anyone else's work directly, whether or not they are in the class. Copying may adversely affect your grade; but more importantly, of course, you won't be adequately preparing yourself for the tests in this way. For further information, consult the FAQ (see below).

Oral Discussion:

I will schedule individual meetings with students via Zoom, during which we will discuss course material. It is not my intention to intimidate students this way. The purpose of these sessions is for me to find out how you are doing, and to provide an honest assessment of your progress which is otherwise very difficult to ascertain

in an online learning environment. My belief is that this subject, like most things, is something you *could* learn yourself from the book (but probably wouldn't without the accountability that I can provide as a coach or instructor). For these individual meetings, another Zoom link will be provided (see the WyoCourse site) with waiting room feature implemented in order to preserve privacy.

MATH 3205 Course Website:

Course-related announcements, links, handouts, homework solutions, etc. will be posted at the course website http://ericmoorhouse.org/courses/3205/ (not to be confused with WyoCourses). The WyoCourse site will be reserved for materials deemed private or sensitive (including Zoom links, course grades, and any documents we don't want to spread beyond our class). The course website however will provide much more capacity for posting homework, instructional videos and documents, while also demanding much less time for me to regularly update than WyoCourses which is designed with security in mind.

Topics Covered: Foundations of the real number system (in particular as the unique complete ordered field having the rationals as a dense subfield). Various manifestations and consequences of completeness are considered (the Cauchy and Dedekind axioms for completeness, the Least Upper Bound Property, the Bolzano-Weierstrass Theorem, the Archimedean Property, the Nested Interval Theorem). Basic elements of point set topology (continuity, compactness, connectedness). The Intermediate Value Theorem. Uniform continuity. Sequences and series. Differentiation and Integration. We strive throughout to place the real number system in the context of other number systems (particularly the rationals and the complex numbers).

Frequently Asked Questions: For more detail on policies of course administration, learning progress, etc. please refer to http://ericmoorhouse.org/courses/FAQ.html. Most questions students ask me are already answered in this document.

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 330, phone 766-6189.

Appropriate Conduct: For issues of academic honesty/dishonesty, classroom deportment, etc., we refer to Students &

Teachers Working Together (UW College of Arts & Sciences) and additional documents available through our WyoCourses site.

COVID-19 Policies: During this pandemic, you must abide by all UW policies and public health rules put forward by the City of Laramie (or by Natrona County if at UW-Casper), the University of Wyoming and the State of Wyoming to promote the health and well-being of fellow students and your own personal self-care. The current policy is provided for review.

As with other disruptive behaviors, we have the right to dismiss you from the classroom (Zoom and physical), or other class activities if you fail to abide by these COVID-19 policies. These behaviors will be referred to the Dean of Students Office using the UWYO Cares Reporting Form for Student Code of Conduct processes.

Syllabus Changes: I will alert you to any possible course format changes in response to UW decisions about community safety during the semester.

HyFlex, Zoom, and WyoCourses expectations: As with all UW coursework, this course will be educational and useful to you. I will respond to questions, concerns, and feedback in a timely manner.

Your responsibilities:

- Give and receive feedback from me and your classmates respectfully and constructively in all interactions. This includes in Zoom chats, on WyoCourses boards, and within physical classroom spaces.
- Actively engage in civil discourse in a respectful manner. Use professional language in all course related forums.
- Communicate professionally. Whenever you send class-related email or messages, please include a clear, specific subject line and use the body of the email or message to explain the purpose for the email and any attached materials. Conduct yourself professionally.
- Meet assignment deadlines. We expect that you're interacting with course material multiple times during the week.
- Ask for help when you need it. For academic assistance for this course please contact me for available resources. Assistance is available through the Dean of Students.
- Please let us know if you notice another student who needs help in our (anonymous) WyoCares referral option.

Information Technology (IT): If you have any IT related challenges, please contact the UWIT Service Center.