MTH 280 | Introduction to Proof | Fall 2020

Instructor | Dr. Leanne Merrill (call me Leanne or Dr. Merrill)

Contact | Email: merrill@wou.edu

Delivery | This course is an online synchronous course. We will meet weekly.

| Required class meetings | Mondays 2:00pm - 3:50pm on Zoom
| Zoom link for class | https://wou-edu.zoom.us/j/93714424774
| Zoom password for class | 396433

| All course materials will be housed on Canvas. Check Canvas often!

| How to Access Canvas | youtube.com/watch?v=GTAIuwKAxcC

Office Hours | Office Hours Zoom link | https://wou-edu.zoom.us/j/91342879140

| Office Hours Times

| Monday | 10am-11am
| Tuesday | 2pm-3pm
| Wednesday | 11am-12pm
| Thursday | 12pm-1pm
| Friday | 2pm-3pm

| In addition to these times, I am available for individual appointments at a variety of times. Schedule a Zoom appointment using my scheduling link.

Contact | I am reliably available via email at merrill@wou.edu. I reply within 2-3 hours during weekdays, or the next day if sent after 6pm. I’m a bit slower on weekends.

Materials | The main textbook for this class is A Gentle Introduction to the Art of Mathematics by Joe Fields. I will refer to this book as GIAM throughout the term. GIAM is free and available online here. I will post the pdf of the book on Moodle (that’s what I’ll be using). I recommend downloading it to your device.

| You should have a reliable device and internet connection that allow you to attend Zoom class. Ideally, you’ll access class using a tablet or computer. If you need access to technology, use the Computing Equipment Request form linked on this page (scroll down to find the form). Please contact me if you have concerns. A lack of technology should not be a barrier to your success. I will work with you.
Goals

In this course,

1. Students will demonstrate the ability to make rigorous mathematical arguments in axiomatic and non-axiomatic systems. [Note: This outcome aligns to the Mathematics Program Learning Outcomes.]
2. Students will demonstrate effective written communication of mathematical concepts. [Note: This outcome aligns to the Written Communication Learning Outcome for General Education.]
3. Students will demonstrate skill in basic proof techniques including direct proof, proof by contradiction, proof by cases, and proof by mathematical induction.
4. Students will intuitively understand and have a working knowledge of the notions of injectivity and surjectivity of functions, and of the notions of reflexivity, symmetry, antisymmetry, and transitivity for relations.

Grades

Your course grade consists of:

Pre-Class Assignments 10%
To be completed ahead of class time. Primarily graded for completion.

Class Participation 10%
To earn credit, you must attend and actively participate in class.

Homework Assignments 40%
To be completed after class time. Primarily graded for accuracy and quality; you will have the opportunity to resubmit homework to earn back lost points.

Presentation 10%
Due in Week 10. Details to follow.

Portfolio 30%
A collection of problems you will write and revise throughout the term. Final Portfolio submission due in Week 10. Details to follow.

Letter grades will be assigned as follows:

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
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<tr>
<td>A-</td>
<td>90-92</td>
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<tr>
<td>B+</td>
<td>87-89</td>
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<tr>
<td>B</td>
<td>83-86</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
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</tbody>
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Policies

Late Work

In general, I expect you to turn things in at their due date/time. However, if something prevents you from doing this -- such as illness of yourself or a family member, or another difficult and unforeseen event -- you should communicate with me so we can design a plan for you to keep up with material. As long as you communicate with me, to the best of your ability, I will not deduct credit for lateness. **However, if you do not complete work for a period of more than 2 weeks without communicating with me, I reserve the right to deduct late work by 50%.**

Incomplete Grades

An Incomplete Grade is reserved for situations in which a student has completed the majority of the course content, but is unable to complete a small but significant part of the course (for example, a project) during the academic term. Incomplete grades are negotiated between student and instructor, and work must be made up within a year. If you believe you qualify for an Incomplete Grade and would like to discuss this, please email merrill@wou.edu. An Incomplete Grade will not be granted without a discussion with the instructor.

Accomodations

WOU values diversity and inclusion; we are committed to fostering full participation for all students. Please notify your instructor if there are aspects of the instruction or design resulting in barriers to your participation.

Disability-related accommodations are determined through the Office of Disability Services (ODS). If you, as a student, believe you may be eligible for disability related accommodations please contact ODS, they would be happy to work with you. ODS notifies students and faculty members of approved academic accommodations and coordinates implementation of accommodations.

 academic Programs Services Center (APSC) 405
503-838-8250 (voice)
https://wou.edu/disabilityservices/
ods@wou.edu

Veterans and Military

Western Oregon University recognizes that those who are actively serving in the Reserves or National Guard of the United States are required by their military contract to attend mandatory training. If you will be absent due to military orders, I strongly encourage you to communicate that with me as soon as possible so we may discuss alternative arrangements.
Student Success

If I am concerned about your academic progress and ability to succeed in the course, I may make a referral to Student Success and Advising through the Wolf Connection System (WCS). If a referral is created, an Academic Success Advisor from SSA will connect with you via email or telephone to discuss challenges you may be facing and your plan to overcome those obstacles and achieve success. This referral process is a way to support you in this class. It’s not a punishment. If you want to discuss strategies for academic success, you may schedule an appointment with an Academic Success Advisor by calling 503-838-8428, emailing studentsuccess@wou.edu, or by selecting WCS in your Portal and clicking Get Advising.

Reporting

As an employee at Western Oregon University, I am required by federal law to report any incident of sexual misconduct. If you wish to talk with me about something that has occurred to you or another student, I must inform university personnel. Reporting this information helps the university to safeguard students and get students the help and support needed. You have the right to maintain your privacy. I will only report what you confide in me. If you would like additional information about this, please visit: wou.edu/student/sexual-misconduct-resources/sexual-assault-care/

Mental Health

If you experience overwhelming academic stress, difficult life events, or feelings of anxiety or depression, I strongly encourage you to seek support. Remember that getting help is a smart and courageous thing to do -- for yourself, for those you care about, and for those who care about you. Here are some resources available to you.

- Student Health and Counseling Center (wou.edu/health). Counseling services are free for all WOU students taking at least 6 on-campus credits.
- WOU’s Suicide Prevention and Mental Health Promotion program (wou.edu/mental-health).
- For life threatening situations, call 911 or Campus Public Safety (wou.edu/safety) at (503) 838-9000.
- I am a SafeZone (LGBTQ+) Ally and I am trained in the QPR Suicide Prevention Technique, so I can provide support and referrals in difficult situations.

Academic Honesty

I expect you to be honest in this course. In general, if you use a source from the internet or elsewhere, I expect you to cite it by simply providing the name of the source (and URL if applicable). I will provide clear citation guidelines for projects within those particular
assignments. If you are ever confused about when and how to cite something, please ask me. For more specific information about WOU’s academic misconduct policy, see the WOU Student Code of Responsibility.

Email

Please use your WOU Gmail to send me an email; otherwise, it may be sent to my spam folder. I will respond to all emails within 48 hours, and usually much quicker. Likewise, you must check your WOU Gmail at least twice per week while you are enrolled in this course, and you must read my emails entirely. When you are composing a message to me, please consider readability and tone. If you are asking a question about a particular math problem, it is helpful if you attach a picture of your work on that problem so far.

Canvas

On Canvas, you may access all course documents such as this syllabus, homework assignments, videos, and other resources. In addition, you may view your scores on previous assignments and your current course grade. I will post announcements in Canvas about changes/updates to the course. I recommend checking Canvas at least four times per week during this course.

Schedule

On Canvas, you can view the tentative course schedule. I reserve the right to change this in the event of unforeseen circumstances, but I will only ever move due dates later, not earlier. If I change the schedule I will send an announcement to the entire class so that you are aware of the change.

Getting Help

The WOU Math Center offers free online tutoring starting in Week 2! Not all tutors can help with Math 280, but many can. To visit the Math Center, learn about the hours, tutors, and services they offer, visit this website:

https://wou.edu/mathcenter/

How To Succeed

- Attend all class sessions to the best of your ability.
- Complete all assignments on time to the best of your ability.
- More than anything: reach out if you are feeling lost, stuck, or behind.

I am here to help you, and I promise to be patient, open-minded, and flexible. My passion is helping college students transform their mathematical skills, confidence, and attitudes!