

**Winter 2014**  
**Math 473 Advanced Analysis 3**  
**Bouillon 109, 12:00 - 12:50 MWF**

**Instructor:** Dr. Jim Bisgard  
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**Office Hours:** M-F 9:00 - 10:00, and by appointment.  
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**Required Text:** Ross, Kenneth A.; Elementary Analysis: The Theory of Calculus, 2<sup>nd</sup> edition, published by Springer-Verlag

**Course Goals:** The goal of Math 473 is the same as that of Math 471 and 472: to approach calculus rigorously. Our list of topics will include:

1. Uniform Convergence
2. Differentiation
3. Integration
4. Compactness
5. Countable vs. Uncountable

## 1 Grades/Exams/Homework

- Grades

Grades will be calculated using the following weighting system:

Homework: 50%;

Exams: 50% total, broken up as follows: 25% for the mid-term and 25% for the final.

I will use the following formula to determine your grade percentage:

$$.5 \times \frac{\text{total homework points earned}}{\text{total homework points possible}} + .25 \times \frac{\text{Mid-term Exam points earned}}{\text{Mid-term Exam points possible}} + .25 \times \frac{\text{Final Exam points earned}}{\text{Final Exam points possible}},$$

as well as the following scale:

	86 – 87.9 : B+	72 – 73.9 : C+	51 – 52.9 : D+	below 37 : F
90 – 100 : A	76 – 85.9 : B	62 – 71.9 : C	40 – 50.9 : D	
88 – 89.9 : A–	74 – 75.9 : B–	60 – 61.9 : C–	37 – 39.9 : D–	

- Homework

You'll get a homework assignment every Wednesday which will be due on the Thursday of the following week **at 10 am**. (So, your first homework will be due April 10.) You may use/ask/talk to whatever/whoever you'd like, as long as you say what resources you used. However, you must write your solutions up in **your own words** to hand in. **DO NOT** wait until the day before homework is due to start working on it. There won't be a large number of problems, but you will need spend a fair bit of time thinking about the problems. If you want to submit your homework electronically, you must type it up! I will not accept scanned images of handwritten homework.

- Homework Revisions

Each homework problem will be graded out of 5 points. Graded homework will be returned on Monday (or Tuesday), and you will be able to turn in a revision on the following Wednesday (or Thursday) that will be able to earn you up to one point per problem. Revisions must be on a new sheet of paper, and you must turn in your original graded work together with your revision. To help with your revisions, I will use two colors to grade: green comments refer to stylistic and/or minor problems, while red comments refer to more major problems, including logical errors (for example, using “all” when “some” is needed, or incorrectly negating a quantifier).

- Exams

There will be two exams: a mid-term and a final. They will be take-home exams, and you’ll have a week to work on them. In contrast to the homework, I want you to work by yourself on the exams. The mid-term will be handed out in the first half of May, and the Final Exam will be handed out on June 4 and due on June 12.

- Expectation for Homework and Exams

Your homework and exams should be written up neatly and legibly, using complete sentences where appropriate. (For example, I don’t expect you to write  $(a + b)^2 = a^2 + 2ab + b^2$  using complete sentences!) Part of writing proofs is to use correct and proper grammar, spelling, and punctuation. As a result, you will be graded on mechanics, as well as the correctness of your proofs! Comments on these aspects of your homework will be in green, and will be worth at most one point per problem.

- Late Policy

Homework and Exams will be due at 10 am on their due date. Homework or Exams handed in after that time on their due date will lose 4 points immediately, (which cannot be made up by revisions), and 4 more points for every 12 hours after (which cannot be made up by revisions). That means: if you hand in homework at 10:30 on the due date, you can earn at most 16 out of 20 on your homework. If you hand in your homework on day after the due date at 10:30 am, you can earn at most 12 out of 20, since over 24 hours will have passed.

## 2 Fine Print

*Students with disabilities who wish to set up academic adjustments in this class should give me a copy of their “Confirmation of Eligibility for Academic Adjustments” from the Disability Support Services Office as soon as possible so we can discuss how the approved adjustments will be implemented in this class. Students without this form should contact the Disability Support Services Office, Bowillon 140 or [dssreceipt@cwu.edu](mailto:dssreceipt@cwu.edu) or 963-2171.*