

Course Change Request

Date Submitted: 03/17/26 11:46 am

Viewing: **MATH 300 : Introduction to Advanced Mathematics**

Last approved: 03/06/26 5:07 am

Last edit: 03/18/26 9:35 am

Changes proposed by: skhankan

Catalog Pages referencing this course

- [Department of Mathematical Sciences](#)
- [Mathematics \(MATH\)](#)

Select modification type:

- ~~Specialized Course Designation~~
- Substantial

In Workflow

- MATH Chair**
- SC Curriculum Committee**
- SC Assistant Dean
- Assoc Provost- Undergraduate
- Registrar-Courses
- Banner

Approval Path

- 03/17/26 5:29 pm
Maria Emelianenko (memelian):
Approved for MATH Chair

History

- Mar 2, 2020 by Catherine Sausville (csausvil)
- Oct 6, 2020 by Catherine Sausville (csausvil)
- Nov 12, 2020 by jriemen
- Aug 16, 2023 by Tory Sarro (vsarro)
- Mar 6, 2026 by Catherine Sausville (csausvil)

Are you completing this form on someone else's behalf?

No

Effective Term: Summer 2026**Subject Code:** MATH - Mathematics**Course Number:** 300**Bundled Courses:****Is this course replacing another course?** No**Equivalent Courses:** ~~MATH 290 - Introduction to Advanced Mathematics~~**Catalog Title:** Introduction to Advanced Mathematics**Banner Title:** Intro to Advanced Mathematics**Will section titles vary by semester?** No**Credits:** 3**Schedule Type:** Lecture**Hours of Lecture or Seminar per week:** 3**Repeatable:** May be only taken once for credit, limited to 3 attempts (N3) **Max Allowable Credits:** 9**Default Grade Mode:** Undergraduate Regular**Recommended Prerequisite(s):****Recommended Corequisite(s):****Required****Prerequisite(s) / Corequisite(s)****(Updates only):**

(MATH 114 C or better OR MATH 114T or MATH 116 C or better) AND (Math 125 C or better OR Math 125T OR Math 175 C or better)

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
	(
	(	MATH 114	C	UG		
Or		MATH 114	XS	UG		
Or		MATH 114T	T	UG		
Or		MATH 116	C	UG)	
And	(	MATH 125	C	UG		
Or		MATH 125	XS	UG		
Or		MATH 125T	T	UG		
Or		MATH 175	C	UG)	
)	

**Registration
Restrictions
(Updates only):**

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Degree(s):

School(s):

**Catalog
Description:**

Introduction to proofs and the language of mathematics. Topics include proof methods (direct, by contraposition, by contradiction, by induction), basic properties of the real numbers, set theory, equivalence relations, and functions. Cardinality of finite and infinite sets is also treated. Designated as a writing intensive course for mathematics majors. Notes: Primarily intended for mathematics majors and minors. ~~Introduction to proofs and the language of mathematics. Topics include induction, equivalence relations, cardinality, and basic properties of the real numbers. Designated as a writing intensive course for mathematics majors. Notes: Primarily intended for mathematics majors.~~

Justification:

What: Updating course description.

Why: The new description is more representative to what has been taught in the course over the past few

years

Does this course cover material which crosses into another department? No

Learning Outcomes:

Will this course be scheduled as a cross-level cross listed section?

Attach Syllabus

- [Math 300 Sample Syllabus.pdf](#)
- [walnut math 300 syllabus.pdf](#)

Additional Attachments

- [Math 290 to Math 300 Proposal.pdf](#)
- [Math 300 course requirements.pdf](#)
- [sachsmath300f24_writing to learn and to communicate.pdf](#)
- [walnut writing assignment writing to communicate.pdf](#)
- [walnut in class assignment writing to learn.pdf](#)
- [walnut math 300 project directions.pdf](#)
- [sachsmath300f24_second writing to learn and to communicate.pdf](#)
- [How Mathematics Changed Me _ The New Yorker.pdf](#)
- [Sachsmath300s25sylvwithhighlighting.pdf](#)
- [Su_Some Guidelines for Good Mathematical Writing.pdf](#)
- [teaching Zagier one sentence proof.pdf](#)

Specialized Course

Categories:

Mason Core

Select the Mason Core Requirement the course is proposing to fulfill:

Foundation

Courses:

Exploration

Courses:

Integration

Courses:

Writing Intensive

Writing Intensive

Course must address all of the following Writing-Intensive learning outcomes:

Students will use informal or formal writing in ways that deepen their awareness of the field of study and its subject matter.

Students will compose one or more written genres specific to the field of study in order to communicate key ideas tailored to specific audiences and purposes; genres may be academic, public, or professional.

Students will draft and revise written works based on feedback they receive from instructors and peers, using strategies appropriate to the genre, audience, and purpose.

Course must also satisfy Writing-Intensive course criteria.

This course will be taught at the 300-level or above.

This course will be offered in the major.

This WI course will be limited to 35 students.

Faculty will devote significant time to instruction on writing in the course and on how to complete assignments successfully.

Students will receive instructor feedback on their writing.

Students will be required to revise at least one substantive assignment in the course based on instructor feedback.

All of the writing assignments in the course count substantially toward the students' final grade in the course.

Students will individually write a minimum of 3500 words, divided among two or more assignments. In the case of collaborative assignments, students will demonstrate that they have individually written at least 3000 words of the collaborative work.

I affirm I have attached the required documents using the syllabus and attachment buttons provided above.

The WI course planner

A syllabus with WI syllabus statement and WI outcomes identified

Descriptions/instructions of all major writing assignments (could be included with the syllabus)

A course schedule with instructional activities related to writing identified (could be included with the syllabus)

Have you reached out to the Libraries to determine whether there are adequate resources to support your course? If not, please email Meg Meiman, Associate University Librarian for Learning, Research, and Engagement at mmeiman2@gmu.edu.

**Additional
Comments:**

**Reviewer
Comments**



Key: 16604