Course Change Request

Date Submitted: 03/13/26 12:25 pm

Viewing: MATH 446 : Numerical Analysis I

Last approved: 05/13/20 4:45 am

Last edit: 03/18/26 9:36 am

Changes proposed by: skhankan

Catalog Pages referencing this course

Computational Sciences and Informatics (CSI)

Computational and Data Sciences (CDS)

Select modification type:

Substantial

In Workflow

1. **MATH Chair**
2. **SC Curriculum Committee**
3. SC Assistant Dean
4. Assoc Provost-Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 03/17/26 5:29 pm Maria Emelianenko (memelian): Approved for MATH Chair

History

1. Dec 20, 2018 by Gregory Craft (gcraft)
2. May 13, 2020 by Tory Sarro (vsarro)

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

No

Effective Term: Summer 2026

Subject Code: MATH - Mathematics

Course Number: 446

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses: OR 481 - Numerical Methods in Engineering

Catalog Title: Numerical Analysis I

Banner Title: Numerical Analysis I

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):

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

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
	(	MATH 203	C	UG		
Or		MATH 203	XS	UG		
Or		MATH 203T	T	UG	)	
And	(	CS 112	C	UG		
Or		CS 112	XS	UG		
Or		CS 112T	T	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:

Mathematical foundations of scientific computing, including convergence, complexity and error propagation. Floating point representation and computer arithmetic, methods of solution of nonlinear equations, direct and iterative solution of linear systems, data fitting through interpolation, polynomial approximation, and least squares. ~~Significant figures, round-off errors, iterative methods of solution of nonlinear equations of a single variable, solutions of linear systems, iterative techniques in matrix algebra, interpolation and polynomial approximation.~~

Justification:

What: Updating course description.

Why: The new description is more representative of what has been taught in this 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

Additional Attachments

Specialized Course Categories:

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: 10232