Course Change Request

Date Submitted: 10/27/26 2:33 pm

Viewing: MATH 673 : Dynamical Systems

Last approved: 09/19/26 4:58 am

Last edit: 11/09/26 12:12 pm

Changes proposed by: esander

Catalog Pages referencing this course

Department of Mathematical Sciences

Mathematics (MATH)

In Workflow

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

Approval Path

1. 11/03/26 7:46 am Matt Holzer (mholzer): Approved for MATH Chair

History

1. May 19, 2021 by Tory Sarro (vsarro)
2. Sep 19, 2026 by Evelyn Sander (esander)

Select modification type:

Substantial

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

No

Effective Term: Fall 2027

Subject Code: MATH - Mathematics

Course Number: 673

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Dynamical Systems

Banner Title: Dynamical Systems

Will section titles vary by semester? No

Credits: 3

Schedule Type: Lecture

Hours of Lecture or Seminar per week: 3

Repeatable: May only be taken once for credit (NR)
GRADUATE ONLY

Default Grade Mode: Graduate Regular

Recommended Prerequisite(s):
~~Elementary courses in linear algebra and differential equations.~~

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):
MATH 315, 515, or equivalent, or permission of instructor.

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

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Include

Limited to students with a class of Senior Plus (SCRRCLS_ONLY_SP)

Limited to students with a class of Non Degree (SCRRCLS_ONLY_ND)

Limited to students with a class of Advanced to Candidacy. (SCRRCLS_ONLY_DC)

Limited to students with a class of Graduate. (SCRRCLS_ONLY_GR)

Limited to students with a class of Junior Plus (SCRRCLS_ONLY_JP)

Level(s):

Include

Enrollment limited to students with a level of Non-Degree (SCRRLVL_ONLY_ND)

Limited to undergraduate level students. (SCRRLVL_ONLY_UG)

Limited to graduate level students only. (SCRRLVL_ONLY_GR)

Degree(s):

Exclude

Non-Degree Undergraduate Degree students may not enroll. (SCRRDEG_NO_NDU)

School(s):

Catalog Description:

Contemporary topics in nonlinear dynamical systems illustrated in mathematical models from physics, ecology, and population dynamics. Traditional qualitative analysis of difference and differential equations provides background for understanding chaotic behavior when it occurs in these models. Topics include stability theory, fractals, Lyapunov exponents, and chaotic attractors.

Justification:

What: Clarifying the pre-reqs.

Why: We want to make sure that the prerequisites are clearly spelled out rather than being implemented on a case by case basis.

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:

~~The only change is to remove the equivalent course -- Math 661 is not equivalent.~~

Reviewer Comments

Key: 10321