# Course Change Request

Date Submitted: 03/13/26 12:18 pm

## Viewing: MATH 213 : Analytic Geometry and Calculus III

Transfer Course(s): MATH U213

Last approved: 05/13/20 4:41 am

Last edit: 03/18/26 9:31 am

Changes proposed by: skhankan

**Catalog Pages referencing this course**

Applied Computer Science, BS

Astronomy, BS

**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. Oct 30, 2018 by Tory Sarro (vsarro)
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:** 213

**Bundled Courses:**

**Is this course replacing another course?** No

**Equivalent Courses:** MATH 215 - Analytic Geometry and Calculus III (Honors)

**Catalog Title:** Analytic Geometry and Calculus III

**Banner Title:** Analytic Geom/Calculus III

**Will section titles vary by semester?** No

**Credits:** 3

**Schedule Type:** Lecture w/Recitation

**Hours of Lecture or Seminar per week:** 2

**Hours of Other Contact Hours per week:** 1

**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 114 | C | UG | | |
| Or | | MATH 114 | XS | UG | | |
| Or | | MATH 114T | T | UG | | |
| Or | | MATH 116 | C | UG | | |
| Or | | MATH 116 | XS | 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:**

Lines, planes and vectors in 2 and 3-dimensional coordinate space. Functions of more than one variable. Partial differentiation, multiple integration, line integrals. Optimization using calculus. Vector fields, including gradient vector fields. The Fundamental Theorem of Line Integrals and Green's Theorem. Additional topics may include gradient flow, surface integration, operators div and curl, Divergence Theorem and Stokes Theorem. ~~Partial differentiation, multiple integrals, line and surface integrals, and three-dimensional analytic geometry.~~

**Justification:**

What: Updating course description.

Why: The new description is more representative of what has been taught in class 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: 10165