Calculus Placement Information Sheet

Calculus II and III Placement Tests

Who Should Take These Tests?

If you already know the material covered in Calculus I or II (e.g., from self-study or high school coursework) but didn't receive college credit, you may qualify to **skip ahead** through one or both of the following placement exams:

- **MAT 168 Placement Test** – Skip MAT 167 (Calculus I) and enroll in MAT 168 (Calculus II)
- **MAT 169 Placement Test** – Skip MAT 168 (Calculus II) and enroll in MAT 169 (Calculus III)

Two Options for Using Your Test Results

Option 1: Placement Only (Default)

• Test is used to waive prerequisites only.
• You do **not** receive course credit.
• You must score **70% or higher** to enroll in the next course.

Choose this if:
• You don't pass the test
• You pass but don't want the grade on your transcript
• You prefer to take another course to meet credit requirements

Option 2: Course Credit

• Test is used for both placement **and** course credit.
• You receive **course credit** and a **letter grade** based on your test score:
A: 90–100
B: 80–89
C: 70–79
D: 60–69

Choose this if:
• You want to earn credit and reduce total courses
• You are comfortable with the grade affecting your GPA

Topics Covered on the Placement Tests

MAT 168 (Calculus I Topics)

- Limits of functions
- Vertical and horizontal asymptotes of rational functions
- Derivatives of polynomial, rational, trigonometric, logarithmic, and exponential functions using power, sum, difference, product, quotient, and chain rules
- Equations of tangent lines
- Implicit differentiation

Updated: 6/27/2025

- Local and absolute maxima and minima of functions
- Determining where functions are increasing, decreasing, concave up, and concave down, and finding inflection points
- Applied optimization problems
- Antiderivatives
- Position, velocity, and acceleration of objects in free fall

MAT 169 (Calculus II Topics)

- Indefinite integrals
- Definite integrals by interpreting the integral in terms of areas and geometry
- Properties of definite integrals
- Fundamental Theorem of Calculus, Parts 1 and 2
- Definite integrals by using symmetry observations
- Indefinite and definite integrals using the techniques of substitution, integration by parts, trigonometric integrals, trigonometric substitution, and partial fractions
- Area between two curves
- Volumes of solids of revolution using disks, washers, and cylindrical shells
- Arc length
- Average value of a function
- Improper integrals

How to Schedule a Placement Test

1. **Pay the $4 testing fee** in advance to Sharon King in TEC 430. Contact her at Sharon.King@usm.edu with any payment questions.
2. After payment, contact Dr. Jacob Chapman at Jacob.Chapman@usm.edu to schedule your test.

Test Format and Details

- **Computer-based**, with 15–16 problems
- **Time limit:** 75 minutes
- **No personal calculators** allowed – an embedded scientific calculator is provided
- **Answer format:** Mostly short-answer; mathematical expressions are typed
- **Partial credit** may be awarded for syntax errors or partially correct work
- You may use **scratch paper**, which must be submitted after the test
- **Scores are reviewed within 24 hours**, and final results will be emailed

Updated: 6/27/2025