

New Calculus Sequence: Information for Advisors

Math 112: Precalculus and Differential Calculus

Topics Include:

- Review of Precalculus: Functions, Inverse Functions and Logarithms, Trigonometric Functions
- Limits
- Derivatives
- Applications of Derivatives

Who should take it?

- Students who have had **no prior calculus** and plan to take at least two semesters of Calculus at Rhodes.

Who should NOT take it?

- Students who have had a calculus class in high school.
- Students who are not sure if they will take more than one calculus class.
- Students whose primary objective is to satisfy the F6.

If students have had calculus in high school but still want to take Math 112, please have them consult with a math faculty member.

Students in Math 112 should also sign up for the 0-credit Math 113.

Math 122: Integral Calculus

Topics Include:

- Advanced topics in differential calculus
- Definite and indefinite integrals
- Techniques and applications of integration

Who should take it?

- Students who have taken any calculus in high school and plan to continue taking calculus.
- Students with a 4 or 5 on the AB Calculus AP exam (or equivalent).

Who should NOT take it?

- Students who haven't taken any calculus.

Math 223: Multivariable Calculus

Topics Include:

- Sequences and series
- Functions of several variables
- Partial derivatives
- Multivariable integration

Who should take it?

- Students with a 4 or 5 on the BC Calculus AP exam (or equivalent). These students may also take several other courses (Math 201, 251, etc.) and should consult with a math faculty member.

Math 115: Applied Calculus

Topics Include:

- Differential, integral, and multivariable calculus
- Differential equations
- Applications, primarily to the natural and environmental sciences
- Calculus on Mathematica

Who should take it?

- Students who might only take one semester of calculus.
- Students interested in applications in the sciences who might go on to take Math 122. Biology-interested students should also consider Math 214.

Math 116: Calculus with Business Applications

Topics Include:

- Differential and integral calculus
- Applications to business

Who should take it?

- Students who will only take one semester of calculus (does not prepare for 122).
- Students interested in business.