

## **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
- 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.