# **Unit 4 Integration**

Content Area: 21st Century Life & Careers

Course(s): Generic Course
Time Period: Generic Time Period

Length: Weeks
Status: Published

## **Unit Introduction**

## **Standards**

4.1.12A	4.2.12A	4.2.12D	4.3.12B	4.4.12A
4.1.12B	4.2.12B	4.2.12E	4.3.12C	4.4.12C
4.1.12C	4.2.12C	4.3.12A	4.3.12D	

## **Essential Questions**

- What does it mean to find the area of a plane region that is bounded by the graphs of functions?
- How are the properties of integration useful in mathematics?

# **Content / Skills**

#### **CONTENT**

- Relevant vocabulary, notation and symbols.
- Antiderivatives and Indefinite Integration.
- The definite integral.
- The Fundamental Theorem of Calculus.
- Integration by u-substitution

#### **SKILLS**

- Use relevant vocabulary, notation and symbols.
- Use the graphing calculator where appropriate.
- Evaluate indefinite integrals.
- Evaluate definite integrals.
- Find the area under a curve.
- Apply the Fundamental Theorem of Calculus.
- Recognize patterns that involve u-substitution.