



---

# Statway Course Solutions Catalog

---



CARNEGIE MATH  
**PATHWAYS**

WestEd 



# TABLE OF CONTENTS

## **2** Overview of Statway

## **4** Statway Course Solutions

**4** Statway College

**5** Statway College with Corequisite

## **6** Supplemental Materials

Fundamentals

Bridge Materials

# Overview of Statway



Statway provides students with statistical reasoning skills needed for the 21st century. Going beyond a textbook, Statway course solutions are taught using contextualized, relevant curricula, and a unique pedagogy that combines collaborative learning and social-emotional supports.

Statway course solutions are designed to meet a range of high school and college-level math learning goals in person, online, and in a hybrid context.

## Statway Course Solutions at a Glance

Solution	Description & Implementation
Statway College	<p>One-term, college-level course solution that develops deep statistical reasoning skills and meets transfer-level math requirements.</p> <p><i>Sample Implementation: Replaces the typical Introduction to Statistics course; delivered in a single term with 3 or 4 credit hours.</i></p>
Statway College with Corequisite	<p>A corequisite option for students who require developmental math, which includes targeted, scaffolded supports to help students gain the necessary skills and confidence to succeed in Statway College in one term.</p> <p><i>Sample Implementation: Replaces the typical Introduction to Statistics course; delivered in a single term with 3 or 4 credit hours. Students who require developmental math also complete a corequisite portion, with 1-3 contact hours.</i></p>

# Overview of Statway, Continued



Carnegie Math Pathways offers two sets of supplemental resources that prepare students for success in and beyond Statway. These include Fundamentals lessons, which are focused on arithmetic, beginning algebra, and basic numeracy skills designed to bolster students' proficiency in the

prerequisite mathematical skills and understanding needed for success in Statway. Additionally, Carnegie Math Pathways Bridge Materials are supplemental lessons that develop the skills and knowledge to successfully bridge students' path from Statway to pre-calculus.

Supplemental Materials at a Glance	
Resource	Implementation
Fundamentals	Fundamentals is a series of lessons that can be used as a 1-term prerequisite or corequisite to Statway, or as specific lessons printed on-demand, as needed, to support Statway students.
Bridge Materials	Typically implemented as a 1-credit hour ad- on to a college-level course, or as lessons printed on-demand during the college-level course as needed.

# Statway Course Solutions

## Statway College

### Goal

College-Level Credit

The goal of the Statway College (stand-alone) offering is to provide a one-term, college-level, introduction to statistics course.

### Learning Outcomes

Statway College is a one-term, college-level statistics course that addresses all the college-level learning outcomes in a typical introduction to statistics course. It also incorporates Productive Persistence strategies.

Statway College covers all major topics typically contained in a college-level statistics course. It consists of seven modules:

1. Statistical analysis process, data visualization, measures of center, shape, and spread
2. Probability, probability distribution, and normal distribution
3. Sampling distribution, confidence intervals, and hypothesis testing for sample proportions
4. Sampling distribution, confidence intervals, and hypothesis testing for sample means
5. Two-sample tests, ANOVA, and choosing an appropriate test
6. Correlation and regression
7. Chi-square

### Implementation

This offering is designed as a 3-credit course but can be taught as a 4-credit course.



# Statway Course Solutions, Continued



## Statway College with Corequisite

### Goal

College-Level Credit

The goal of the Statway College with Corequisite solution is to provide a one-term, college-level statistics course for all students, with targeted supports built using the Carnegie Math Pathways design principles to provide effective scaffolding for students who need additional support. This solution consists of a one-term, college-level statistics course and a corresponding corequisite component. The corequisite component develops students' statistical and algebraic reasoning skills in support of the learning outcomes of the college-level statistics course.

### Learning Outcomes

The course covers all major topics typically contained in a college-level statistics course. It consists of 7 modules:

1. Statistical analysis process, data visualization, measures of center, shape, and spread
2. Probability, probability distribution, and normal distribution
3. Sampling distribution, confidence intervals, and hypothesis testing for sample proportions
4. Sampling distribution, confidence intervals, and hypothesis testing for sample means
5. Two-sample tests, ANOVA, and choosing an appropriate test
6. Correlation and regression
7. Chi-square

The corequisite materials address learning outcomes and skills typically seen in a developmental math sequence, such as algebraic reasoning and thinking.

### Implementation

The college-level component is designed as a 3 or 4 transfer-level credit course. The corequisite materials are designed to support a 1, 2, or 3 contact hour corequisite course depending on what is appropriate for student and program needs.

# Supplemental Materials



## Fundamentals

### Goal

Preparation for Statway

The goal of Fundamentals is to bolster students' proficiency with the prerequisite mathematical skills and understanding, such as basic arithmetic, needed for success in Statway.

### Learning Outcomes

The learning outcomes cover fundamental mathematics and pre-algebra and statistics, which students need to succeed in the Pathways, and include major topics from arithmetic, algebra, and numeracy.

### Implementation

This offering is designed to be flexible. For example, it could be administered as:

- a stand-alone, prerequisite course to Statway, with 1-3 contact hours, or
- a corequisite taught in conjunction with the first term of Statway, with 1-3 contact hours.

## Bridge Materials

### Goal

Transition to College Algebra

The Bridge Materials are a set of lessons that colleges can use to provide Statway students a transition to college algebra, business math, or pre-calculus courses. These materials have been collaboratively designed by network faculty using the instructional design principles of the Pathways curricula.

### Learning Outcomes

We have created 8 lessons around the following topics:

- Linear equations and inequalities, including systems
- Functions
- Exponent rules
- Polynomials expressions, including quadratic equations and factoring
- Rational expressions

### Implementation

These lessons are designed to be implemented in any way that they are needed to support Statway students. For example, they can be administered at the end of a Statway term or integrated within Statway.



CARNEGIE MATH  
**PATHWAYS**  
WestEd 

This program of work is supported by the William and Flora Hewlett Foundation, the Bill & Melinda Gates Foundation, the Lumina Foundation, the Kresge Foundation, the Carnegie Corporation of New York, Ascendium Education Group, the ECMC Foundation, and the National Science Foundation's grant DUE-1322844 and grant DUE-1820830 in cooperation with the Carnegie Foundation for the Advancement of Teaching and WestEd.

[www.carnegiemathpathways.org](http://www.carnegiemathpathways.org)