

# STAT-80: SUPPORT FOR STATISTICS

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## Effective Term

Fall 2026

## CC Approval

10/03/2025

## AS Approval

10/09/2025

## BOT Approval

10/16/2025

## SECTION A - Course Data Elements

### Send Workflow to Initiator

No

### CB04 Credit Status

Credit - Degree Applicable

### Discipline

Minimum Qualifications	And/Or
Mathematics (Master's Degree)	

### Subject Code

STAT - Statistics

### Course Number

80

### Department

Mathematics

### Division

Mathematics (MATH)

### Full Course Title

Support for Statistics

### Short Title

Support for Statistics

### CB03 TOP Code

1701.00 - Mathematics, General

### CB08 Basic Skills Status

NBS - Not Basic Skills

### CB09 SAM Code

E - Non-Occupational

### Rationale

Updating subject code to match other statistics courses.

## SECTION B - Course Description

### Catalog Course Description

This course is optional for those students who place directly into STAT-C1000, Statistics. It is designed to provide additional time for students to focus on applications of the fundamental concepts in Statistics. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests;

applications of technology for statistical analysis including the interpretation and relevance of statistical findings; and applications using data from a broad range of disciplines.

### **SECTION C - Conditions on Enrollment**

**Open Entry/Open Exit**

No

**Repeatability**

Not Repeatable

**Grading Options**

Pass/No Pass Only

**Allow Audit**

Yes

### **Requisites**

**Prerequisite(s)**

Completion of Intermediate Algebra level content or equivalent or appropriate placement.

**Corequisite(s)**

Concurrent enrollment in STAT-C1000 or equivalent.

### **Requisite Justification**

**Requisite Description**

Course Not in a Sequence

**Subject**

STAT

**Course #**

C1000

**Level of Scrutiny**

Closely Related Lecture/Lab Courses

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### **SECTION D - Course Standards**

**Is this course variable unit?**

No

**Units**

1.00000

**Activity Hours**

36.00

**Outside of Class Hours**

18

**Total Contact Hours**

36

**Total Student Hours**

54

## Distance Education Approval

Is this course offered through Distance Education?

Yes

### Online Delivery Methods

DE Modalities	Permanent or Emergency Only?
Entirely Online	Permanent
Hybrid	Permanent
Online with Proctored Exams	Permanent

## SECTION E - Course Content

### Student Learning Outcomes

Upon satisfactory completion of the course, students will be able to:	
1.	Generate and analyze graphs from data.
2.	Identify the best measures of center and spread for a distribution in context.
3.	Calculate and interpret Normal probabilities.

### Course Objectives

Upon satisfactory completion of the course, students will be able to:	
1.	Interpret data displayed in tables and graphs.
2.	Calculate and identify best measures of central tendency and variation for data.
3.	Interpret measures of central tendency and variation for data.
4.	Identify methods of obtaining data, advantages and disadvantages of each.
5.	Define and identify bias.
6.	Calculate the mean and standard deviation of a discrete distribution.
7.	Calculate probabilities using various distributions.
8.	Construct and interpret confidence intervals.
9.	Interpret the output of a technology-based statistical analysis, beyond the use of a graphing calculator.
10.	Formulate hypotheses including selecting the appropriate method for testing and interpreting the results.
11.	Use various statistical methods of inference for estimation and interpret the associated statistics.

### Course Content

1. Summarizing data graphically and numerically;
2. Descriptive statistics: measurement, measures of central tendency, and variation;
3. Sampling and sampling distributions;
4. Discrete distributions – Binomial;
5. Continuous distributions – Normal;
6. Find and interpret confidence intervals;
7. Perform and interpret results of Hypothesis Testing;
8. Methods of regression;
9. Use various statistical methods of inference for estimation and interpret the associated statistic involving real world applications.
10. Technology based statistical analysis, beyond the use of a graphing calculator.

## Methods of Instruction

### Methods of Instruction

Types	Examples of learning activities
Activity	Use of statistical applets to explore a variety of topics.
Discussion	Discussion of class topics.
Group Work	Collaboration on practice problems.
Workshop	Attend Math Success Center workshops.

**Online Adaptation**

Types	Examples of learning activities
Activity	Use of statistical applets to explore a variety of topics.
Discussion	Discussion of class topics.
Group Work	Collaboration on practice problems.
Workshop	Attend Math Success Center workshops.

**Instructor-Initiated Online Contact Types**

Announcements/Bulletin Boards  
 Discussion Boards  
 E-mail Communication  
 Video or Teleconferencing

**Student-Initiated Online Contact Types**

Discussions  
 Group Work

**Course design is accessible**

Yes

**Methods of Evaluation****Methods of Evaluation**

Types	Examples of classroom assessments
Class Participation	Participate in class discussions related to course content.
Lab Activities	Obtain real world data and draw conclusions using statistical analysis.
Homework	Homework worksheets involving applications of statistical investigations.
Other	The Mathematics Department maintains a commitment to diverse teaching methods in courses emphasizing vital quantitative skills and qualitative reasoning ability. To that end, it is expected that sufficient formative assessments will be given to students that in frequency, length and rigor adequately assess both quantitative skills and qualitative reasoning.

**Assignments****Reading Assignments**

Example 1) Read the section on Normal distributions and be ready to apply the concepts to an in-class activity.  
 Example 2) Read the section on sampling distributions and be ready to apply the concepts to an in-class activity.

**Writing Assignments**

Example 1) Describe a distribution in context including description of center and spread.  
 Example 2) Use side-by-side boxplots to compare two distributions in context.

**Outside-of-Class Assignments**

Other assignments as needed.

**SECTION F - Textbooks and Instructional Materials****Material Type**

Other required materials/supplies

**Description**

Use of textbook and materials from concurrently enrolled STAT-C1000 or equivalent.

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## SECTION G - Diversity, Equity and Inclusivity

### How does your course and/or course outline of record reflect strategies for accommodating and engaging diverse student populations, advancing equitable outcomes, and fostering inclusion for all students?

This course is designed to engage and accommodate diverse student populations by using strategies that promote equitable outcomes and foster an inclusive learning environment. The curriculum achieves this by focusing on real-world applications, which makes the material more relevant and accessible to students from various backgrounds. It also utilizes technology-based statistical analysis, moving beyond simple calculators to give students practical skills applicable in their future careers. The course's emphasis on interpreting data both graphically and numerically accommodates different learning styles, while its focus on identifying bias and demystifying complex data concepts empowers students to become more critical and informed citizens, thus directly advancing equitable outcomes. This approach ensures that all students, regardless of their prior exposure to quantitative methods, have the tools to succeed.

### Course Codes (Admin Only)

#### CB00 State ID

CCC000644869

#### CB10 Cooperative Work Experience Status

N - Is Not Part of a Cooperative Work Experience Education Program

#### CB11 Course Classification Status

Y - Credit Course

#### CB13 Special Class Status

N - The Course is Not an Approved Special Class

#### CB23 Funding Agency Category

Y - Not Applicable (Funding Not Used)

#### CB24 Program Course Status

Program Applicable

#### Allow Pass/No Pass

Yes

#### Only Pass/No Pass

No