MINOR IN STATISTICS

In Workflow

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Approval Path

1. 2026-05-07T19:13:28Z
   Vincent Pigno (vincent.pigno): Approved for MATH Committee Chair
2. 2026-05-12T16:28:37Z
   Kimberly Elce (kelce): Approved for MATH Chair
3. 2026-10-08T01:14:34Z
   Mikkel Jensen (mikkel.jensen): Approved for NSM College Committee Chair
4. 2026-10-08T15:33:06Z
   Chris Taylor (ctaylor): Approved for NSM Dean

History

1. May 1, 2018 by clmig-jwehrheim
2. Mar 18, 2026 by Kimberly Elce (kelce)

Date Submitted: 2026-05-07T19:10:02Z

Viewing: Minor in Statistics

Last approved: 2026-03-18T23:09:18Z

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Changes proposed by: Vincent Pigno (217361639)

Academic Group: (College)

Natural Sciences & Mathematics

Academic Organization: (Department)

Mathematics & Statistics

Catalog Year Effective:

2027-2028 Catalog

Individual(s) primarily responsible for drafting the proposed degree major program:

Name (First Last)	Email	Phone 999-999-9999
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Program Snapshot

Type of Program:
Minor

Program Change Type:
Substantive

Title of the Program:
Minor in Statistics

Designation: (degree terminology)
Minor

Delivery Mode:
Fully Face to Face

Please see the CSU/CIP Code Crosswalk: https://www.csus.edu/academic-affairs/curriculum-workflow/_internal/_documents/csu_codes_to_cip.pdf

Provide a clear, concise overview of the program proposal (new or change) and provide a justification. For NEW programs describe the purpose and focus of the program, identify the target student population(s), and highlight key strengths and distinguishing features of the program.
The program change type was marked as substantive simply because this change affects the unit count of this program by one unit.

The only change being made is that Stat 1 is being removed as an option for the Statistics minor. Students are now required to take Stat 50.

With a recent change in prerequisites for the STAT 115A course, students who select the statistics minor are now effectively required to take Stat 50 in order to complete the program. This change is being made to make the program requirements clearer for the students and consistent with the Stat 115A course.

University Learning Goals

Undergraduate Learning Goals:
Competence in the disciplines

Will this program be required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?
No

Curriculum Alignment and Assessment

Program Learning Outcomes

Provide measurable, program-specific learning outcomes that reflect the most important competencies students will demonstrate upon completion of the program. Programs are expected to assess and use PLOs for continuous improvement.

Program Learning Outcomes

Learning Outcome
Apply fundamental techniques of mathematical statistics by solving problems in probability, estimation, and inference.
Communicate statistical results in written reports using professional technology, data visualizations, or mathematical arguments.
Critically evaluate raw data and transform it into a form that’s appropriate for statistical analysis using professional technology.

Learning Outcomes Display

Course Code	PLO 1	PLO 2	PLO 3
MATH 30			
MATH 31			
MATH 32			

STAT 50			
STAT 115A			
STAT 128			
STAT 129			
STAT 115B			
STAT 140A			
STAT 140B			
STAT 155			
MATH 100			
MATH 101			
MATH 108			
MATH 110A			
MATH 117			
MATH 130A			
MATH 150			
MATH 170			

Please attach a Comprehensive Program Assessment Plan
StatMinorAssessmentPlan.xlsx

Please attach a Curriculum Map Matrix
StatMinorCurrMap.xlsx

Please attach a Five-Year Budget Projection. For NEW programs, also attach a Budget Narrative.
BudgetNeedsStatMinor.docx

Catalog Description (catalog copy):

Units required for Minor: 25

Program Description

Statistics is the science and art of creating meaning from data. The statistics minor provides students with a foundation in the theory, methods, and applications of statistical analysis. Students will analyze real world data sets, model complex phenomena, use professional software, and produce a portfolio of meaningful projects. Graduates will have the skills and knowledge to succeed in a data-driven world.

Admission and Continuation Requirements (catalog copy): minimum GPA and prerequisites (if applicable), required coursework or preparation, portfolio, test scores, and/or letters of recommendation. For graduate programs: expectations for a relevant bachelor's degree (required or preferred disciplines, prerequisite knowledge, or equivalent experience), include evidence that program requirements conform to the minimum requirements for the culminating experience, as specified in Title 5 Section 40510 The Master's Degree and Section 40511 The Doctoral Degree.

Minimum Grade Requirements

- Prerequisites must be completed with grade of "C-" or better.
- Grade of "C-" or better is required in all courses applied to the Statistics minor.

Program Requirements (catalog copy):

Program Requirements

Code	Title	Units
MATH 30	Calculus I	4
MATH 31	Calculus II	4
MATH 32	Calculus III	4

STAT 50	Introduction to Probability and Statistics	4
STAT 115A	Introduction to Probability Theory	3
STAT 128	Statistical Computing	3
or STAT 129	Analyzing and Processing Big Data	
Select one of the following.		3
STAT 115B	Introduction to Mathematical Statistics	
STAT 129	Analyzing and Processing Big Data	
or STAT 128	Statistical Computing	
STAT 140A	Linear Models	
STAT 140B	Statistical Learning	
STAT 155	Introduction to Techniques of Operations Research	
MATH 100	Applied Linear Algebra	
MATH 101	Combinatorics	
MATH 108	Introduction to Formal Mathematics	
MATH 110A	Modern Algebra	
MATH 117	Linear Algebra	
MATH 130A	Functions of a Real Variable	
MATH 150	Introduction to Numerical Analysis	
MATH 152 Computational Linear Algebra		
MATH 170	Linear Programming	
Total Units		**25**

Students that are majoring in mathematics with a statistics emphasis may not obtain a statistics minor.

Fiscal Impact to Change an Existing Program

Indicate programmatic or fiscal impact which this change will have on other academic units' programs, and describe the consultation that has occurred with affected units:

There will be no fiscal impact on other programs.

Provide a fiscal analysis of the proposed changes:

There will be no fiscal impact as Stat 50 is already offered every semester.

How will the above changes be accommodated within the department/College existing fiscal resources?

NA

Will the proposed changes require additional resources?

No

What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed?

None

Estimate the cost and indicate how these resource needs will be accommodated:

No cost

Key: 316