# New Program Report

**Date Submitted:**
05/11/2023

## Institution
Columbia College

## Site Information

**Implementation Date:**
8/28/2023 12:00:00 AM

## Added Site(s):

## Selected Site(s):

Columbia College-Jefferson City, 3314 Emerald Lane, Jefferson City, MO, 65109

Columbia College-Kansas City, 4240 Blue Ridge Blvd., Ste 400, Kansas City, MO, 64133-1702

Columbia College-Lake Ozark, 900 College Blvd, Osage Beach, MO, 65065

Columbia College-Rolla, 550 Blue's Lake Parkway, Rolla, MO, 65401

Columbia College-Springfield, 3271 East Battlefield Road, Suite 250, Springfield, MO, 65804

Columbia College-St. Louis, 4411 Woodson Rd., St. Louis, MO, 63134

Columbia College-Waynesville, 320 Ichord Ave, Ste. A, Waynesville, MO, 65583

Columbia College, 1001 Rogers, Columbia, MO, 65216

## CIP Information

**CIP Code:**
270501

**CIP Description:**
A general program that focuses on the relationships between groups of measurements, and similarities and differences, using probability theory and techniques derived from it.  Includes instruction in the principles in probability theory, binomial distribution, regression analysis, standard deviation, stochastic processes, Monte Carlo method, Bayesian statistics, non-parametric statistics, sampling theory, and statistical techniques.

**CIP Program Title:**
Statistics, General

**Institution Program Title:**
Bachelor of Science in Statistics

## Degree Level/Type

**Degree Level:**
Bachelor's Degree

**Degree Type:**
Bachelor of Science

**Options Added:**

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Collaborative Program**:**
N

## Mode of Delivery

Current Mode of Delivery

Classroom

Hybrid

Online

## Student Preparation

Special Admissions Procedure or Student Qualifications required:
Admission procedures and student qualifications do not exceed regular College standards

Specific Population Characteristics to be served:
Columbia College serves traditional students at the Residential Campus and specializes in adult and military education nationwide.

## Faculty Characteristics

Special Requirements for Assignment of Teaching for this Degree/Certificate:
Columbia College adheres to the credential requirements set forth by HLC for all faculty member. Columbia College requires instructors to have at least a Master's degree from a regionally accredited institution in the subject to be taught, with relevant coursework and/ or professional experience directly related to the course. In exceptional circumstances, special certification or extraordinary work experience may compensate the absence of certain academic credentials.

Estimate Percentage of Credit Hours that will be assigned to full time faculty:
Full-time faculty teach 12 credit hours or less in a given session. Adjunct faculty can teach no more than 9 credit hours in a given session, and no more than 6 in-seat credit hours a session.

Expectations for professional activities, special student contact, teaching/learning innovation:
Full-time faculty members are required to have 3 hours a week of office hours designated for their students. Faull-time faculty members are required to participate in professional development. Adjunct faculty members are required to provide contact information to students.

## Student Enrollment Projections Year One-Five

| Year 1 | Full Time: 1 | Part Time: 4 | |
|--------|--------------|--------------|---|
| Year 2 | Full Time: 2 | Part Time: 9 | |
| Year 3 | Full Time: 3 | Part Time: 13 | **Number of Graduates:** 0 |
| Year 4 | Full Time: 4 | Part Time: 18 | |
| Year 1 | Full Time: 1 | Part Time: 4 | |
| Year 2 | Full Time: 2 | Part Time: 9 | |
| Year 3 | Full Time: 3 | Part Time: 13 | **Number of Graduates:** 0 |

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| | | | |
|---|---|---|---|
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 1** | **Full Time:** 1 | **Part Time:** 4 | |
| **Year 2** | **Full Time:** 2 | **Part Time:** 9 | |
| **Year 3** | **Full Time:** 3 | **Part Time:** 13 | **Number of Graduates:** 0 |
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 1** | **Full Time:** 1 | **Part Time:** 4 | |
| **Year 2** | **Full Time:** 2 | **Part Time:** 9 | |
| **Year 3** | **Full Time:** 3 | **Part Time:** 13 | **Number of Graduates:** 0 |
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 1** | **Full Time:** 1 | **Part Time:** 4 | |
| **Year 2** | **Full Time:** 2 | **Part Time:** 9 | |
| **Year 3** | **Full Time:** 3 | **Part Time:** 13 | **Number of Graduates:** 0 |
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 1** | **Full Time:** 1 | **Part Time:** 4 | |
| **Year 2** | **Full Time:** 2 | **Part Time:** 9 | |
| **Year 3** | **Full Time:** 3 | **Part Time:** 13 | **Number of Graduates:** 0 |
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 1** | **Full Time:** 1 | **Part Time:** 4 | |
| **Year 2** | **Full Time:** 2 | **Part Time:** 9 | |
| **Year 3** | **Full Time:** 3 | **Part Time:** 13 | **Number of Graduates:** 0 |
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 1** | **Full Time:** 1 | **Part Time:** 4 | |

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| Year 2 | **Full Time:** 2 | **Part Time:** 9 | |
|--------|------------------|-------------------|---|
| **Year 3** | **Full Time:** 3 | **Part Time:** 13 | **Number of Graduates:** 0 |
| **Year 4** | **Full Time:** 4 | **Part Time:** 18 | |
| **Year 5** | **Full Time:** 5 | **Part Time:** 22 | **Number of Graduates:** 2 |

**Percentage Statement:**
n/a

## Program Accreditation

Institutional Plans for Accreditation:
n/a

## Program Structure

**Total Credits:**
120

**Residency Requirements:**
30

**General Education Total Credits:**
42

**Major Requirements Total Credits:**
37

**Course(s) Added**

| COURSE NUMBER | CREDITS | COURSE TITLE |
|---------------|---------|--------------|
| STAT 421 | 3 | General Linear Models 1 |
| MATH 338 | 3 | Mathematical Statistics and Probability |
| MATH 300 | 3 | Multivariate Calculus |
| STAT 494 | 3 | Capstone |
| CISS 145 | 3 | Introduction to Python Programming |
| MATH 250 | 3 | Statistics I |
| STAT 422 | 3 | General Linear Models 2 |
| MATH 201 | 3 | Calculus and Analytic Geometry I |
| MATH 340 | 3 | Introduction to Probability Theory |
| MATH 303 | 3 | Linear Algebra |
| MATH 222 | 3 | Calculus and Analytic Geometry II |

**Free Elective Credits:**
12

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**Internship or other Capstone Experience:**
STAT 494 Capstone

## Assurances

I certify that the program will not unnecessarily duplicate an existing program of another Missouri institution in accordance with 6 CSR 10-4.010, subsection (9)(C) Submission of Academic Information, Data and New Programs.

I certify that the program will build upon existing programs and faculty expertise.

I certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful. Institutions' decision to implement a program shall be based upon demand and/or need for the program in terms of meeting present and future needs of the locale, state, and nation based upon societal needs, and/or student needs.

Contact Information

First and Last Name:  DUSTI
SCHNEDLER

Email: dschnedler@ccis.edu

Phone: 573-875-3960

# Statistics, B.S.

## General Education Requirements (39-42 hrs)

For a complete list of general education courses click [here](#). For additional information on general education requirements click [here](#).

## Ethics Course Requirement (3 sem. hrs)

      PHIL 330 Ethics

## Core Requirements (37 sem. hrs)

      CISS 145 Introduction to Python Programming
      MATH 201 Calculus and Analytic Geometry I
      MATH 222 Calculus and Analytic Geometry II
      [After]
      MATH 250 Statistics I
      [Right]  **or**
      PSYC 224 Statistics for the Behavioral and Natural Sciences
      [After]
      MATH 300 Multivariate Calculus
      MATH 303 Linear Algebra
      MATH 338 Mathematical Statistics and Probability
      MATH 340 Introduction to Probability Theory
      STAT 421 General Linear Models 1
      STAT 422 General Linear Models 2
      STAT 494 Capstone

## Statistics Elective (12 sem. hrs)

Complete 12 hours from the following courses:

      CISS 397 Business Data Analytics
      CISS 421 Machine Learning
      MATH 225 Discrete Mathematics I
      MATH 325 Discrete Mathematics II
      MATH 380 Advanced Calculus
      [After]
      ACCT 278 Introductory Business Analytics
      [Right]  **or**
      MGMT 278 Introductory Business Analytics
      [After]

MGMT 331 Data Visualization for Data Analytics

MGMT 335 Introduction to Sports Analytics

MGMT 374 Property Management                    (*Inactive-Hidden*)

MKTG 441 Marketing Research and Analytics

PSYC 225 *Quantitative Research Methods

PSYC 320 Psychological Testing and Measurement

PSYC 327 Qualitative Research Methods

## Total: 120 (sem. hrs)

The total reflects the minimum number of hours to obtain a bachelor's degree. Some courses listed above may fulfill more than one requirement block. Please speak to your academic advisor to plan your specific degree path.