Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

To: University of California, Santa Barbara 2022-2023 General Catalog, Quarter	From: De Anza College 2022-2023 General Catalog, Quarter

Statistics and Data Science, B.A.

GENERAL INFORMATION FOR ALL MAJORS

All transfer applicants must satisfy University of California admissions eligibility requirements as well as meeting campus admission selection criteria. Completing the UC transfer admission requirements in English and mathematics by the end of the fall term prior to the fall application quarter makes an applicant more competitive for admission to UCSB. All admission requirements must be completed by the end of spring prior to transfer. For more information on UC admissions eligibility requirements and admission to UCSB, please visit the Admissions website: www.admissions.ucsb.edu

This articulation agreement lists course-to-course or sequence-to-sequence substitutions for preparation in the major. **Transfer students are strongly encouraged to complete as many major preparatory courses as possible prior to enrolling at UCSB. Completion of all major preparatory courses is not an admissions requirement, but some majors require certain courses to be completed prior to transfer with a specified GPA, and completion or near completion of major preparatory courses will help students move more efficiently toward graduation after transfer.**

Please note that the course "equivalencies" do not necessarily apply to UCSB general education. For information concerning satisfaction of UCSB general education requirements, please refer to the General Education/Breadth articulation agreement.

Advanced Placement (AP) and **International Baccalaureate (IB)** exams may or may not be used to meet course requirements, depending on the exam. Please refer to the AP Chart and IB Chart in the UCSB General Catalog for information on how we use AP and IB exams.

STATISTICS AND DATA SCIENCE, B.A.

Please visit the department's website to learn more about this major: www.pstat.ucsb.edu

PRE-MAJOR INFORMATION

Students are admitted initially to **Pre-Statistics and Data Science**, not directly to the major. Admission to the full major is contingent upon completion of all PRE-MAJOR courses with a grade point average of 2.50 or higher in courses completed at the University of California and with no grade lower than "C". **(Only UC grades go into the pre-major GPA. Transfer courses taken outside of UC may satisfy pre-major requirements, but they are not part of the pre-major GPA.)** All pre-major courses, Computer Science 8, and Computer Science 9 or 16 must be completed with a grade of "C" or better. PREPARATION courses are excluded from the pre-major GPA but will apply to the overall major GPA. Because the criteria are subject to annual review and revision, transfer students should consult the department directly to obtain current information regarding specific additional criteria for admission to the full major. **Admission to the pre-major does not guarantee admission to full major status.**

PRE-MAJOR:

Mathematics 3A, 3B, 4A, 4B, 6A *(these courses must be completed with grades of "C" or better)*

Mathematics 8* or PSTAT 8* *(must be completed with a grade of "C" or better)*

PSTAT 10 *(must be completed with a grade of "C" or better)*

***Note:** Either MATH 4A, 4B, 6A, or 6B must be completed with a grade of "B" or better in order to take MATH 8 or PSTAT 8 at UCSB.*

***Note:** MATH 8 is a prerequisite for all upper-division Mathematics courses except MATH 117, 104A, 104B, and 104C. If you plan to take additional upper-division Mathematics courses, you must take MATH 8.*

PREPARATION FOR THE MAJOR:

Computer Science 8 *(must be completed with a grade of "C" or better)*

Computer Science 9 or 16 *(must be completed with a grade of "C" or better; students are encouraged to take Computer Science 9 rather than 16 if possible)*

(Transfer applicants do not need to complete all Pre-Major and Preparation for the Major courses in order to be admitted, but should complete as much as possible before transferring so they will be prepared to progress in the major at UCSB.)

PRE-MAJOR REQUIREMENTS

****REFER TO TOP OF AGREEMENT****

MATH 3A - Calculus with Applications, First Course (4.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)

****REFER TO TOP OF AGREEMENT****

MATH 3B - Calculus with Applications, Second Course (4.00)	←	**MATH 1B** - Calculus (5.00) **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00)
****REFER TO TOP OF AGREEMENT****		
MATH 4A - Linear Algebra with Applications (4.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
****REFER TO TOP OF AGREEMENT****		
MATH 4B - Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00)
****REFER TO TOP OF AGREEMENT****		
MATH 6A - Vector Calculus with Applications, First Course (4.00)	←	**MATH 1C** - Calculus (5.00) **--- And ---** **MATH 1D** - Calculus (5.00) **--- Or ---** **MATH 1CH** - Calculus - HONORS (5.00) **--- And ---** **MATH 1DH** - Calculus - HONORS (5.00)
****REFER TO TOP OF AGREEMENT****		
MATH 8 - Transition to Higher Mathematics (5.00)	←	No Course Articulated
--- Or ---		
PSTAT 8 - Transition to Data Science, Probability and Statistics (5.00)	←	No Course Articulated
****REFER TO TOP OF AGREEMENT****		
PSTAT 10 - Principles of Data Science with R (5.00)	←	**CIS 44A** - Database Management Systems (4.50) **--- And ---** **CIS 44H** - R Programming (4.50)

PREPARATION FOR THE MAJOR

CMPSC 8 - Introduction to Computer Science (4.00)	←	**CIS 5** - Swift Programming (4.50) **--- Or ---** **CIS 22A** - Beginning Programming Methodologies in C++ (4.50) **--- Or ---** **CIS 35A** - Java Programming (4.50) **--- Or ---** **CIS 40** - Introduction to Programming in Python (4.50) **--- Or ---** **CIS 41A** - Python Programming (4.50)
CMPSC 9 - Intermediate Python Programming (4.00) • *Preferred course*	←	No Course Articulated
--- Or ---		
CMPSC 16 - Problem Solving with Computers I (4.00)	←	**CIS 22B** - Intermediate Programming Methodologies in C++ (4.50) **--- Or ---** **CIS 22BH** - Intermediate Programming Methodologies in C++ - HONORS (4.50) **--- Or ---** **CIS 26A** - C as a Second Programming Language (4.50) **--- Or ---** **CIS 26B** - Advanced C Programming (4.50) **--- Or ---** **CIS 26BH** - Advanced C Programming - HONORS (4.50)

END OF AGREEMENT