Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

Astrophysics, Lower Division B.A.

COLLEGE OF LETTERS AND SCIENCE

College Admission Requirements for Transfer Students
This major is offered by the College of Letters and Science (L&S).

By the end of the spring term preceding fall enrollment at Berkeley, you must complete:

1) The L&S Requirements in Reading & Composition, Quantitative Reasoning, and Foreign Language; **OR**
2) IGETC

Major Requirements:
Complete as many lower division major requirements as possible. See details on preparation for this major below.

Primary selection criteria for admission, in general:
- completion of L&S Requirements (or IGETC), plus
- strength of academic preparation, and
- grade point average.

For more information on admission to UC Berkeley:
http://admissions.berkeley.edu

For more information on majors at UC Berkeley:
Berkeley Academic Guide: http://guide.berkeley.edu

REQUIREMENTS

ASTRONOMY 7A and 7B

If a course comparable to **ASTRON 7A** is not available, the department recommends that students take a course comparable to Berkeley's **ASTRON 10** in order to gain some exposure to the material. However, **ASTRON 10** is not required for the major.

ASTRON 7A requires students to use the laws of modern physics to describe and interpret astronomical phenomena.

ASTRON 7B requires students to use the laws of modern physics to describe and interpret astronomical phenomena.

Most community colleges do not offer an equivalent Introduction to Astrophysics course. Transfer students should take this course during their first semester at UC Berkeley.

PHYSICS 7A, 7B and 7C

This institution may cover the topics in Berkeley's Physics 7ABC series in a different order. Students who transfer before completing courses equivalent to the entire 7ABC series **may need to enroll in Berkeley's PHYSICS 49** to complete missing topics such as wave motion (7A) or heat (7B).

COMPUTER PROGRAMMING

Those not familiar with a computer programming language are urged to include an introductory course in Computer Science.

The Astronomy Department at UC Berkeley does not accept AP or IB Physics exams for satisfying requirements.

For more information:
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LOWER DIVISION MAJOR REQUIREMENTS

ASTRON 7A - Introduction to Astrophysics (4.00) • *Highly recommended*	←	No Course Articulated
ASTRON 7B - Introduction to Astrophysics (4.00) • *Highly recommended*	←	No Course Articulated
ASTRON 10 - Introduction to General Astronomy (4.00) • *Recommended; Not required for the major*	←	**ASTR 10** - Stellar Astronomy (5.00)

MATH 1A - Calculus (4.00)	←	**MATH 1A** - Calculus (5.00) **--- And ---** **MATH 1B** - Calculus (5.00) • *Regular and honors courses may be combined to complete this series* **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00) **--- And ---** **MATH 1BH** - Calculus - HONORS (5.00) • *Regular and honors courses may be combined to complete this series*
MATH 1B - Calculus (4.00)	←	**MATH 1B** - Calculus (5.00) **--- And ---** **MATH 1C** - Calculus (5.00) • *Regular and honors courses may be combined to complete this series* **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00) **--- And ---** **MATH 1CH** - Calculus - HONORS (5.00) • *Regular and honors courses may be combined to complete this series*
MATH 53 - Multivariable Calculus (4.00)	←	**MATH 1C** - Calculus (5.00) **--- And ---** **MATH 1D** - Calculus (5.00) • *Regular and honors courses may be combined to complete this series* **--- Or ---** **MATH 1CH** - Calculus - HONORS (5.00) **--- And ---** **MATH 1DH** - Calculus - HONORS (5.00) • *Regular and honors courses may be combined to complete this series*
MATH 54 - Linear Algebra and Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- And ---** **MATH 2B** - Linear Algebra (5.00) • *Regular and honors courses may be combined to complete this series* **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00) **--- And ---** **MATH 2BH** - Linear Algebra - HONORS (5.00) • *Regular and honors courses may be combined to complete this series*
PHYSICS 7A - Physics for Scientists and Engineers (4.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYSICS 7B - Physics for Scientists and Engineers (4.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00) **--- And ---** **PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
PHYSICS 7A - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7B** - Physics for Scientists and Engineers (4.00)	←	Articulates as Course-to-Course Only

PHYSICS 7C - Physics for Scientists and Engineers (4.00)	←	**PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00) **--- And ---** **PHYS 4D** - Physics for Scientists and Engineers: Modern Physics (6.00)
PHYSICS 7A - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7B** - Physics for Scientists and Engineers (4.00) **--- And ---** **PHYSICS 7C** - Physics for Scientists and Engineers (4.00)	←	Articulates as Course-to-Course Only

END OF AGREEMENT