Articulation Agreement by Major

Effective during the 2022-2023 Academic Year

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

MAE: Aerospace Engineering B.S.

GENERAL INFORMATION

DATED MATERIAL, SUBJECT TO CHANGE. PLEASE CONSULT CURRENT UCSD GENERAL CATALOG FOR ANY ADDITIONAL INFORMATION.

Effective Fall 2017, major preparation will be required for this major. For details, visit: http://admissions.ucsd.edu/MajorPrep

As of Fall 2014, the BS degrees in Mechanical, Aerospace, and Environmental Engineering degrees are capped. Because of heavy student interest in these three majors, and the limited resources available to accommodate this demand, maintenance of a high-quality program makes it necessary to limit enrollments. Please contact the MAE Department advisors for more information.

Students must apply to be admitted directly into the Aerospace Engineering major at UC San Diego. To be considered for admission to the Aerospace Engineering major, transfer students must have completed the following courses:

- Calculus I-for Science and Engineering (Math. 20A)
- Calculus II-for Science and Engineering (Math. 20B)
- Calculus and Analytic Geometry (Math. 20C)
- Differential Equations (Math. 20D)
- Linear Algebra (Math. 18)
- Calculus-based physics series with lab experience (Physics 2A-B-C with Physics 2CL)
- Chemistry 6A

In addition to the required courses above, it is recommended that transfers complete Vector Calculus (Math. 20E) and a MATLAB programming course, if available.

Courses that have not been articulated and do not show an equivalent transfer course on ASSIST.org must be approved via petition on an individual basis by the MAE Department. Please refer to the MAE Department's Undergraduate Program website for more information: http://mae.ucsd.edu/undergrad.

Aerospace Engineering is a four-year ABET-accredited curriculum that begins with fundamental engineering courses in mechanics, thermodynamics, materials, solid mechanics, fluid mechanics, and heat transfer. Additional courses are required in aerospace structures, aerodynamics, flight mechanics, propulsion, controls, and aerospace design. Graduates of this program will normally enter the aerospace industry to develop aircraft and spacecraft, but also may find employment in other areas that use similar technologies, such as mechanical and energy-related fields. Examples include automobile, naval, and sporting equipment manufacturers.

UC San Diego Advanced Placement (AP) and International Baccalaureate (IB) credit policies are detailed in the links below:

Advanced Placement (AP) https://www.ucsd.edu/catalog/pdf/APC-chart.pdf

International Baccalaureate (IB) https://catalog.ucsd.edu/_files/international-baccalaureate-credits-chart.pdf

LOWER DIVISION MAJOR REQUIREMENTS

MATH 18 - Linear Algebra (4.00)	←	**MATH 2B** - Linear Algebra (5.00) **--- Or ---** **MATH 2BH** - Linear Algebra - HONORS (5.00)
MATH 20A - Calculus for Science and Engineering (4.00)	←	**MATH 1A** - Calculus (5.00) **--- Or ---** **MATH 1AH** - Calculus - HONORS (5.00)

MATH 20B - Calculus for Science and Engineering (4.00)	←	**MATH 1B** - Calculus (5.00) **--- Or ---** **MATH 1BH** - Calculus - HONORS (5.00)
MATH 20C - Calculus and Analytic Geometry for Science and Engineering (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)
MATH 20D - Introduction to Differential Equations (4.00)	←	**MATH 2A** - Differential Equations (5.00) **--- Or ---** **MATH 2AH** - Differential Equations - HONORS (5.00)
MATH 20E - Vector Calculus (4.00) • *Articulation is subject to placement by proficiency exam* • *Petition department after transfer*	←	No Course Articulated

PHYS 2A - Physics - Mechanics (4.00)	←	**PHYS 4A** - Physics for Scientists and Engineers: Mechanics (6.00)
PHYS 2B - Physics - Electricity and Magnetism (4.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)
PHYS 2C - Physics - Fluids, Waves, Thermodynamics, and Optics (4.00)	←	**PHYS 4C** - Physics for Scientists and Engineers: Fluids, Waves, Optics and Thermodynamics (6.00)
PHYS 2CL - Physics Laboratory - Electricity and Magnetism (2.00)	←	**PHYS 4B** - Physics for Scientists and Engineers: Electricity and Magnetism (6.00)

MAE 8 - MATLAB Programming for Engineering Analysis (4.00)	←	**CIS 35A** - Java Programming (4.50) **--- Or ---** **CIS 22A** - Beginning Programming Methodologies in C++ (4.50) **--- Or ---** **CIS 40** - Introduction to Programming in Python (4.50) **--- Or ---** **CIS 41A** - Python Programming (4.50) **--- Or ---** **CIS 41B** - Advanced Python Programming (4.50)
MAE 2 - Introduction to Aerospace Engineering (4.00)	←	This course must be taken at the university after transfer
CHEM 6A - General Chemistry I (4.00)	←	**CHEM 1A** - General Chemistry (5.00) **--- Or ---** **CHEM 1AH** - General Chemistry - HONORS (5.00)

MAE 11 - Thermodynamics (4.00)	←	No Course Articulated
MAE 21 - Aerospace Materials Science (4.00)	←	No Course Articulated
MAE 30A - Statics & Introduction to Dynamics (4.00)	←	No Course Articulated
MAE 30B - Dynamics & Vibrations (4.00)	←	No Course Articulated

END OF AGREEMENT