School of Science, Technology, Engineering & Mathematics

CSU Pathway

Associate of Arts Degree- Area of Math & Science—CSU PATHWAY

These courses emphasize the natural sciences, which examine the physical universe, its life forms, and its natural phenomena. Courses in Math emphasize mathematical, analytical, and reasoning skills beyond the level of intermediate algebra. Courses in science emphasize an understanding of the process of science and the scientific method. All courses emphasize the use of mathematics and science as investigative tools, the role of mathematics and science as part of human civilization and society, and the inherent value of both inductive and deductive reasoning as part of the human experience.

2017-2018 MATH AND SCIENCE (NAS493 /NAS493B/NAS493C)

The student must successfully complete <u>18 units of study with a grade of "C" or better or a "P" if the course is taken on a "pass-no pass" basis.</u>

INCLUDED DISCIPLINES AND COURSES:

Required Courses (Take one course in each of the three categories, including one course with a lab):

Mathematics (MAT): 1A, 4, 5, 10, 11, 12, 12H, 25

Physical Sciences: Astronomy (AST) 1A, Chemistry (CHE) 1A, 1AH, 2A, 3, 10, Geography (GEG) 1, 1H, 1L,

Geology (GEO) 1, 1L, 3, Oceanography (OCE) 1, Physical Science (PHS) 1, Physics (PHY) 2A, 4A

Life Sciences: Anatomy (AMY) 2A, Biology (BIO) 1, 1H, 2A, 5, 7, 8, 9,

11, 11H, 34, 36, Microbiology (MIC) 1

Elective Courses (The remaining units may be taken from any of the following courses):

Anatomy and Physiology (AMY): 2A, 2B, 10

Anthropology (ANT): 1, 1H Astronomy (AST): 1A, 1B

Biology (BIO): 1, 1H, 2A, 2B, 3, 5, 6, 7, 8, 9, 10, 11, 11H, 12, 17, 30, 34, 36

Chemistry (CHE): 1A, 1AH, 1B, 1BH, 2A, 2B, 3, 10, 12A, 12B, 17

Computer Information Systems (CIS): 5, 17A, 17B, 17C, 18A, 18B, 18C

Electronics (ELE): 21, 23, 24, 25

Engineering (ENE): 10, 21, 22, 23, 27, 28, 30, 35

Geography (GEG): 1, 1L, 1H, 5 Geology (GEO): 1, 1L, 1B, 3 Health Science (HES): 1

Mathematics (MAT): 1A, 1B, 1C, 2, 3, 4, 5, 10, 11, 12, 12H, 25, 32, 36

Microbiology (MIC): 1 Oceanography (OCE): 1, 1L Physical Science (PHS): 1, 5

Physics (PHY): 2A, 2B, 4A, 4B, 4C, 4D, 10, 11

Psychology (PSY): 2

A course may only be counted once.

Career paths typically chosen by undergraduate students emphasizing general education students, as well as students interested in mathematics or sciences as a possible career path, with career opportunities included in mathematics, chemistry, physics, biology, ecological/earth sciences, geology, engineering, computer science, electronics, oceanography, microbiology, kinesiology/ exercise science and the medical sciences.

Course	Units
ENGL 1A	4.0
AOE MATH COURSE	4.0
AREA D	3.0
AREA E	3.0

Total Units: 14.0

Course	Units
AOE ELECTIVE COURSE	3.0
AOE PHYSICAL SCI COURSE	4.0
POL 1	3.0
AREA C1	3.0
CSU ELECTIVE	3.0

Total Units: 16.0

Course	Units
AREA A3	3.0
AOE LIFE SCI COURSE	4.0
AOE ELECTIVE COURSE	3.0
AREA C1/C2	3.0
AREA D	3.0

Total Units: 16.0

Course	Units
AREA A1	3.0
AOE ELECTIVE COURSE	3.0
HIS 6/7/14/31/34	3.0
AREA B2	3.0
CSU ELECTIVE	3.0

Total Units: 15.0

Suggested **CSU Pathway** for AOE in Math & Science

IGETC Pathway for UC/CSU

g SCHOOL OF Science, Technology, Engineering & Mathematics

Associate of Arts Degree- Area of Emphasis in - Area of Math & Science —IGETC PATHWAY

These courses emphasize the natural sciences, which examine the physical universe, its life forms, and its natural phenomena. Courses in Math emphasize mathematical, analytical, and reasoning skills beyond the level of intermediate algebra. Courses in science emphasize an understanding of the process of science and the scientific method. All courses emphasize the use of mathematics and science as investigative tools, the role of mathematics and science as part of human civilization and society, and the inherent value of both inductive and deductive reasoning as part of the human experience.

Course Units 4.0 **ENGL 1A AOE MATH COURSE** 4.0 AREA 3A 3.0 AREA 4 3.0

14.0 **Total Units:**

Course	Units
ENG 1B	4.0
COM 1/6/9	3.0
AOE PHYSICAL SCI	3.0
POL 1	3.0
AREA 4	3.0

Total Units: 16.0

Course	Units
AOE LIFE SCIENCE	4.0
HIS 6/7/14/31/34	3.0
AREA 3A/3B	3.0
AOE ELECTIVE	3.0
AOE ELECTIVE	3.0

Total Units: 16.0

Course	Units
AREA 6	5.0
UC ELECTIVE	3.0
UC ELECTIVE	3.0
UC ELECTIVE	3.0

Total Units: 14.0

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Physical Sciences: Astronomy (AST) 1A, Chemistry (CHE) 1A, 1AH, 2A, 3, 10, Geography (GEG) 1, 1H, 1L, Geology (GEO) 1, 1L, 3, Oceanography (OCE) 1, Physical Science (PHS) 1, Physics (PHY) 2A, 4A Life Sciences: Anatomy (AMY) 2A, Biology (BIO) 1, 1H, 2A, 5, 7, 8, 9, 11, 11H, 34, 36, Microbiology (MIC) 1

Elective Courses (The remaining units may be taken from any of the following courses):

Anatomy and Physiology (AMY): 2A, 2B, 10

Anthropology (ANT): 1, 1H Astronomy (AST): 1A, 1B

Biology (BIO): 1, 1H, 2A, 2B, 3, 5, 6, 7, 8, 9, 10, 11, 11H, 12, 17, 30, 34, 36

Chemistry (CHE): 1A, 1AH, 1B, 1BH, 2A, 2B, 3, 10, 12A, 12B, 17

Computer Information Systems (CIS): 5, 17A, 17B, 17C, 18A, 18B, 18C

Electronics (ELE): 21, 23, 24, 25

Engineering (ENE): 10, 21, 22, 23, 27, 28, 30, 35

Geography (GEG): 1, 1L, 1H, 5

Geology (GEO): 1, 1L, 1B, 3

Health Science (HES): 1

Mathematics (MAT): 1A, 1B, 1C, 2, 3, 4, 5, 10, 11, 12, 12H, 25, 32, 36

Microbiology (MIC): 1

Oceanography (OCE): 1, 1L

Physical Science (PHS): 1, 5

Physics (PHY): 2A, 2B, 4A, 4B, 4C, 4D, 10, 11

Psychology (PSY): 2

A course may only be counted once.

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Suggested **IGETC Pathway** for AOE in Math & Science