

DIVISION OF MATHEMATICS AND SCIENCE

The Division of Mathematics and Science offers courses in the biological sciences, in the physical sciences, and in mathematics for students preparing to teach, work in industry or science-related occupations, enter professional school or pursue a graduate program. Courses are also offered to give non-majors a broader understanding of the methods, principles and significance of mathematics and science.

Curricula are available to meet the requirements for a major in general science, zoology, botany, chemistry, mathematics, or physics. Pre-professional courses are offered for engineering, medicine, dentistry, pharmacy, nursing, medical technology, and allied health areas.

ASSOCIATE OF ARTS

The 62-hour plans under the related departments lead to the Associate of Arts degree. The 65-hour Associate of Science in Health Sciences is discussed below.

ASSOCIATE OF SCIENCE IN HEALTH SCIENCES

The Associate of Science in Health Sciences degree is a 65-semester hour program designed for students with specific occupational or transfer needs. It has a general education core made up of the 35-hour state minimum core requirements. Compared to the associate of arts, it allows students a wider choice of elective courses to meet requirements for many specialized health science baccalaureate degrees. Students who know where they will transfer and what their major will be should work with their ASU-Beebe advisors to select electives that will maximize transferability.

English/Communications (12 hours)

| | | |
|------|------|---------------------|
| ENG | 1003 | Freshman English I |
| ENG | 1013 | Freshman English II |
| SPCH | 1203 | Oral Communications |
| ENG | 2003 | World Literature I |

OR

| | | |
|-----|------|---------------------|
| ENG | 2013 | World Literature II |
|-----|------|---------------------|

Math (3 hours)

| | | |
|------|------|---------------------------|
| MATH | 1023 | College Algebra or higher |
|------|------|---------------------------|

Lab Sciences (8 hours)

(continued next page)

Fine Arts (3 hours from the following:)

| | | |
|------|------|-------------------------------|
| ART | 2503 | Fine Arts-Visual |
| MUS | 2503 | Fine Arts-Musical |
| THEA | 2503 | Fine Arts-Theatre |
| HUM | 2003 | Introduction to Humanities I |
| HUM | 2013 | Introduction to Humanities II |

Social Science (6 hours)

3 hours from the following:

| | | |
|------|------|--|
| HIST | 2763 | The United States to 1876 |
| HIST | 2773 | The United States Since 1876 |
| POSC | 2103 | Introduction to United States Government |

3 hours from the following:

| | | |
|------|------|-------------------------------|
| HIST | 1013 | World Civilization to 1660 |
| HIST | 1023 | World Civilization Since 1660 |

Social or Behavioral Science Elective (3 hours from the following:)

| | | |
|------|------|--|
| HIST | 1013 | World Civilization to 1660 |
| HIST | 1023 | World Civilization Since 1660 |
| HIST | 2763 | The United States to 1876 |
| HIST | 2773 | The United States Since 1876 |
| POSC | 2103 | Introduction to United States Government |
| GEOG | 2613 | Introduction to Geography |
| GEOG | 2603 | World Regional Geography |
| SOC | 2213 | Principles of Sociology |
| PSY | 2013 | Introduction to Psychology |

Electives (at least 30 hours)

12 hours from the following science classes (these science classes are in addition to the core requirements):

Chemistry
Biology
Zoology
Physical Science

6 hours from:

Psychology or Sociology
Math or Computer Information Systems

12 hours of additional elective hours

Total Hours: 65 hours***DEPARTMENT OF BIOLOGICAL SCIENCE***

The courses in biological science are designed to meet the needs of the general student wishing to secure an understanding of the fundamental biological principles for a better understanding of life and for students desiring

to prepare for teaching and research, for graduate study and for medicine and related fields.

BIOLOGICAL SCIENCE

Suggested plans of study in this area are given below. Students should select courses with the approval of a departmental advisor in order to fulfill the requirements of the institution to which they plan to transfer.

See University Core Requirements (43 Hours).

The emphasis and related recommendations may be completed under either Plan A or Plan B.

Plan A: Natural Science Emphasis

| Emphasis Recommendations | | (16 hours) |
|---------------------------------|------|----------------------------------|
| *BIOL | 1004 | Biological Science |
| *BOT | 1104 | General Botany |
| *ZOOL | 1304 | General Zoology I (Invertebrate) |
| *ZOOL | 1314 | General Zoology II (Vertebrate) |

| Related Recommendations | | (8 hours) |
|--------------------------------|------|----------------------|
| *CHEM | 1014 | General Chemistry I |
| *CHEM | 1024 | General Chemistry II |

Electives: 3 hours

Total Hours Required: 62 hours

Plan B: Health Science Emphasis

| Emphasis Recommendations | | (19 hours) |
|---------------------------------|------|---------------------------------|
| *BIOL | 1004 | Biological Science |
| BIOL | 2013 | Introduction to Nutrition |
| *BIOL | 2104 | Microbiology |
| *ZOOL | 2004 | Human Anatomy and Physiology I |
| *ZOOL | 2014 | Human Anatomy and Physiology II |

| Related Recommendations | | (8 hours) |
|--------------------------------|------|--|
| *CHEM | 1014 | General Chemistry I |
| *CHEM | 1024 | General Chemistry II |
| OR | | |
| *CHEM | 1034 | Introduction to Organic and Biochemistry |

Total Hours Required: 62 hours

* Also meets University Core Requirement for science.

DEPARTMENT OF MATHEMATICS

The courses in mathematics are designed to give students a strong foundation for more advanced study, to prepare students for employment, and to provide the proper background and requirements for teaching careers. Courses are also designed to provide the necessary mathematics foundation for pre-engineers and students of science.

MATHEMATICS

A suggested plan of study in this area is given below. Students should select courses with the approval of a departmental advisor in order to fulfill the requirements of the four-year institution to which they plan to transfer.

See University Core Requirements (43 hours).

Some programs require specific courses or have certain prerequisites which will also fulfill University Core Requirements. The courses which apply to an emphasis in Mathematics are listed below:

| Emphasis Requirements | (13 hours) |
|------------------------------|--------------------|
| MATH 1033 | Plane Trigonometry |
| MATH 2205 | Calculus I |
| MATH 2215 | Calculus II |

Electives: 6 hours

Total Hours Required: 62 hours

DEPARTMENT OF PHYSICAL SCIENCE

The courses in physical science, chemistry and physics are designed to provide students with the broad background necessary for employment in industry and education or as a basis for continued study.

A suggested plan of study in this area is given below. Students should select courses with the approval of a departmental advisor in order to fulfill the requirements of the four-year institution to which they plan to transfer.

See University Core Requirements (43 Hours).

| Emphasis Recommendations | (16 hours) |
|---------------------------------|------------------------|
| *CHEM 1014 | General Chemistry I |
| *CHEM 1024 | General Chemistry II |
| *PHYS 2054 | General Physics I |
| OR | |
| *PHYS 2074 | Fundamental Physics I |
| *PHYS 2064 | General Physics II |
| OR | |
| *PHYS 2084 | Fundamental Physics II |

Related Recommendations**(3 hours)**

MATH

1033

Plane Trigonometry

Electives: 8 hours. (BIOL 1004 is recommended as an elective.)

Total Hours Required: 62 hours

* Also meets University Core Requirement for Science

