

Chemistry

Type

Associate in Science

Chemistry, Associate in Science

This degree can lead to a baccalaureate degree in chemistry at accredited colleges or universities. With the addition of biology courses, and some modifications, it is also appropriate for those interested in pharmacy, medicine, dentistry, environmental science, and chemical engineering. Electives should be selected based on the student's interest, the requirements of the transfer institution, or technical-level vocation opportunities.

For more information, contact faculty advisor Dr. Laurie Lemons at (609)343-5019 or llemons@atlanticcape.edu, John Stratton at (609) 343-4981 or stratton@atlanticcape.edu, or department chair, Kenneth Cabarle at (609)343-5128 or kcabarle@atlanticcape.edu.

Upon completion of this program students will be able to:

- Use chemical terminology, apply chemical principles and understand the relationship between chemical structure and behavior;
- Apply both conceptual reasoning and quantitative skills to solve problems;
- Prepare for and safely conduct an experiment, properly record and analyze data, and draw reasonable conclusions by integrating concepts learned in lecture;
- Effectively communicate scientific information and experimental results in written and oral formats;
- Use equipment, instrumentation, or other appropriate technology for data acquisition and analysis.

(CHMI-Fall 2023)

General Education Courses

When a course is not specified, refer to the list of approved General Education courses.

Communication

Course #	Title	Credits
ENGL101	Composition I	3
ENGL102	Composition II	3

Mathematics-Science-Technology

Course #	Title	Credits
CHEM110	General Chemistry I	4
MATH155	Calculus I	4
MATH156	Calculus II	4

Social Science

Course #	Title	Credits
	General Education Social Science Course (3 credits)	3

Humanities

Course #	Title	Credits
	Choose: ARTS103, ARTS108, ARTS109, ARTS115, DANC170, MUSC100 or THEA110 (3 credits)	3
	General Education Humanities Course (3 credits)	3

General Education Elective

Course #	Title	Credits
	General Education Course (3 credits)	3

Program Requirements

Note: PHYS225 should be taken for transfer into a baccalaureate chemistry program

CHEM211 is offered in spring only

Course #	Title	Credits
CHEM111	General Chemistry II	4
CHEM210	Organic Chemistry I	4
CHEM211	Organic Chemistry II	4
	PHYS125 or PHYS225 (See advisor for best option. PHYS125 offered in fall only)	4

Program Electives

Choose 11 credits from the following:

Course #	Title	Credits
BIOL109	General Biology I	4
BIOL110	General Biology II	4
CISM135	Computer Programming-C++	4
MATH152	Linear Algebra	4
MATH255	Calculus III	4
PHIL101	Introduction to Logic	3
PHIL/BIOL104	Bioethics: Realities of the New Millennium	3
	PHYS126 or PHYS226 (See advisor for best option. Offered in spring only)	4

Free Elective

Free Elective: Any college-level course in the curriculum. (Exceptions: DEVA110, DEVS111, DEVA155, ENGL070, ENGL080, ENGL099, MATH073, MATH074, MATH099, ESLN060, ESLN062, ESLN070, ESLN071, ESLN072, ESLN074, ESLN075, ESLN080, ESLN090, ESLN091, ESLN092, ESLN093, ESLN094, ESLN095, ESLN096, ESLN099, ESLN100, or any course designated remedial or developmental)

Free Elective may be used to satisfy the Technological Competency requirement (CISM125 or CISM32).

Course #	Title	Credits
	Free Elective(s): Choose any college-level course(s) (3 Credits)	3

Technological Competency: 0-4 Credits

(Is fulfilled with CISM125 or CISM132, which may be taken as a Free Elective, testing or reviewed departmental portfolio.)

Total Credits	60
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Recommended Sequence of Courses

First Semester

Course #	Title	Credits
CHEM110	General Chemistry I	4
ENGL101	Composition I	3
MATH155	Calculus I	4
	Program Elective Course (4 credits)	4

Second Semester

Course #	Title	Credits
CHEM111	General Chemistry II	4
ENGL102	Composition II	3
MATH156	Calculus II	4
	Program Elective Course (3 credits)	3
	General Education Social Science Course (3 credits)	3

Third Semester

Course #	Title	Credits
CHEM210	Organic Chemistry I	4
PHYS125	College Physics I	4
	General Education Humanities Course (3 credits)	3
	Choose: ARTS103, ARTS108, ARTS109, ARTS115, DANC170, MUSC100 or THEA110 (3 credits)	3

Fourth Semester

(PHYS126 or PHYS226 suggested for Program Elective Course)

Course #	Title	Credits
CHEM211	Organic Chemistry II	4
	Program Elective Course (4 credits)	4
	General Education Course (3 credits)	3
	Free Elective(s): Choose any college-level course(s) (3 Credits)	3