

Science (LAX)

This curriculum is designed for the student who intends to transfer to a four-year institution to earn a baccalaureate degree in a natural or physical science. The program provides a broad background in the liberal arts and sciences. By appropriate selection of courses, a student may build a suitable background for further study in a senior college leading to the baccalaureate degree in biology, chemistry, environmental science and conservation, geology, health education or physics.

Dutchess Community College transfers students to a variety of four-year, public and private colleges and universities. Both formal and informal transfer agreements exist. Students are urged to consult their advisor, the faculty and the ACT Center staff about transfer opportunities early in their academic career at Dutchess.

The Associate in Science (A.S.) degree is awarded upon completion of the requirements for this program.

Students who successfully complete the Associate in Science (A.S.) degree in Liberal Arts and Sciences – Science (LAX) will be able to:

- Demonstrate oral communication skills in a clear and organized manner using appropriate verbal and nonverbal communication techniques with regard to subject, purpose and audience.
- Produce writing that is well-organized, well developed and clear.
- Apply the scientific method, develop hypotheses, analyze results and draw conclusions.
- Work with graphical, numerical or symbolic models to solve problems and interpret results.
- Demonstrate the ability to use technology and software applications to produce an output or perform analyses appropriate to their academic program/discipline.
- Formulate or evaluate arguments, problems or opinions and arrive at a solution, position, or hypothesis based on carefully considered evidence.

Courses should be selected in consultation with an advisor.

DEGREE OVERVIEW

Course No.	Descriptive Title	Credit Hours
ENG 101	Composition I	3
ENG 102	Composition II	3
American History (Appendix D)		3
BHS 103	Social Problems in Today's World	3
Science (a) (c)		16
SCI 100 (d)	Science Introductory Seminar	1
Math (b) (c)		4
Humanities (e)		3
Social Science (f)		3
General Education Elective (g)	3-4	
Electives (h)	15-16 credits	

Free Elective (i)	3-4 credits	19
WFE 101	Lifetime Wellness and Fitness	3
	TOTAL CREDIT HOURS	64-65

a. The following science courses are recommended for students planning to transfer in:

Biology: BIO 105-106, eight BIO 200-level credits; CHE 121-122, CHE 231-232.

Chemistry: CHE 121-122; 231-232; PHY 121-122 or 151-152.

Earth Science: CHE 121- 122; GLG 121, 124; AST 131; PHS 111; PHY 121-122.

Environmental Science: BIO 108, 214, 221, 225, 226, 230; CHE 121 and CHE 122, ESC 230 or ESC 231.

Health: BIO 105-106, 231-232.

Physics: PHY 151-152, 251, PHY 252 or ENR 207; CHE 121-122.

b. Mathematics course: MAT 185 or a 200-level math course. Students must meet the math course prerequisites.

The following mathematics courses are recommended for students planning to transfer in:

Biology: MAT 221, 222, 223, 224.

Environmental Science: MAT 118 and MAT 185 or 221.

Chemistry: MAT 221, 222, 223, 224.

Health: MAT 118 and MAT 185.

Earth Science: MAT 221, 222.

Physics: MAT 221, 222, 223, 224.

c. A minimum of one 200-level course is required in either math or science.

d. The Introductory Seminar is required in the first semester after matriculation in LAX.

e. Humanities courses: Applicable courses are listed in the General Education Appendices. Students may not use ENG 102 to satisfy the Humanities requirement.

f. Social Science courses: Applicable courses in behavioral science, economics, geography, government, history, HGE 101, psychology. Students may not use BHS 103 to satisfy the Social Science requirement.

g. General Education Elective: Courses applicable to this program are listed in the General Education Appendices D, E, F, H and I. Students may select a course from Appendix D only if HIS 104 has not been previously taken. Students may select a course from Appendix F only if HIS 108 has not been previously taken. See the list of the General Education Appendices.

h. Elective courses: Courses applicable in this program are: (a) specific courses listed above; (b) courses applicable in all programs, and courses listed in the General Education Appendices D, E, F, and H. Students may select a course from Appendix D only if HIS 104 or HIS 121 have not been previously taken. Students may select a course from Appendix F only if HIS 108 has not been previously taken. See the list of the General Education Appendices.

i. Read a full discussion of the free elective.