

Liberal Arts and Sciences Degree Programs

ABOUT THE PROGRAMS

The Liberal Arts and Sciences curriculum prepares a student to be an accomplished and productive human being. A liberal arts degree opens doors to the professions and to rewarding and responsible careers. Future physicians, teachers, scientists, lawyers and businessmen, for example, develop themselves as well-rounded individuals, in addition to completing their pre-professional work. The academic experiences in liberal arts and sciences provide the foundation for later specialization, graduate study and professional school.

Associate in Arts (AA)

The general **Associate in Arts (AA)** provides a well-rounded background and the opportunity to explore a variety of subject areas so that graduates may transfer to the third year of a senior college. Those who wish to pursue a program that allows a greater degree of specialization in the first two years of college may select one of the following options: Early Childhood and Childhood Education; History; Human Services; Media Studies; Performing Arts; Political Science; Psychology; Secondary Education; Sociology; Spanish; Speech Pathology. Please note that specific information on the options are detailed with their respective academic departments (see the list on the right or the table of contents of this catalog). The Liberal Arts and Sciences AA with no option is detailed on the following page.

Associate in Science (AS)

The **Associate in Science (AS)** degree is designed with a greater emphasis in mathematics and science than the Associate in Arts degree. A student interested in the Associate in Science (AS) degree in Liberal Arts and Sciences has to choose one of four options: Biology, Chemistry, Earth Systems and Environmental Science, or Physics. Each option prepares students for transfer to a complementary four-year degree program. Students in the Biology, Chemistry, or Earth Systems and Environmental Science options transfer to four-year science programs (biochemistry, biology, chemistry, earth and environmental science, etc.), teacher education programs, pharmacy schools, or engineering programs (biomedical, chemical, environmental). Students in the Physics option usually transfer to colleges offering bachelor's degrees in

engineering (civil, electrical, mechanical, etc.) or in the physical sciences. Enrichment programs are offered to encourage students to continue their education beyond the bachelor degree by attending graduate or other professional programs (e.g. medical school, physical assistant programs, physical therapy programs).

Liberal Arts and Sciences AA

- **General / No Option**
- **Early Childhood and Childhood Education** (Education and Academic Literacy Department)
- **History** (History Department)
- **Human Services** (Social Sciences Department)
- **Media Studies** (Communication Arts and Sciences Department)
- **Performing Arts** (Communication Arts and Sciences Department)
- **Political Science** (Social Sciences Department)
- **Psychology** (Social Sciences Department)
- **Secondary Education** (Education and Academic Literacy Department)
- **Sociology** (Social Sciences Department)
- **Spanish** (Modern Languages Department)
- **Speech Pathology** (Communication Arts and Sciences Department)

Liberal Arts and Sciences AS

- **Biology** (Biological Sciences Department)
- **Chemistry** (Chemistry and Chemical Technology Department)
- **Earth Systems and Environmental Science** (Chemistry and Chemical Technology Department)
- **Physics** (Engineering, Physics and Technology Department)

LIBERAL ARTS AND SCIENCES

Associate in Arts Degree | Transfer Degree Program

LIBERAL ARTS AND SCIENCES CURRICULUM (PATHWAYS)

60 Credits required for AA Degree

Required Core

- A. English Composition (6 Credits)
- B. Mathematical and Quantitative Reasoning (3 Credits)
- C. Life and Physical Sciences ¹ (3-4 Credits)

SUBTOTAL: 12-13

Flexible Core

- A. World Cultures and Global Issues (6 Credits)
- B. U.S. Experience in Diversity (3 Credits)
- C. Creative Expression (3 Credits)
- D. Individual and Society (3 Credits)
- E. Scientific World (3 Credits)

SUBTOTAL: 18

Major Requirements

NOTE: Students will complete a minimum of six credits of these requirements within the Flexible Core. Transfer students who have completed Common Core requirements at a previous institution will not be required to complete credits in excess of the 60 credit requirement.

- ART 11 Introduction to Art History *OR*
ART 12 Introduction to Art History: Africa, the Americas, Asia and the Middle East (0-3 Credits)
- MUS 11 Introduction to Music *OR*
MUS 12 Introduction to Music: A Multi-Cultural Survey of World Music (0-3 Credits)
- COMM 11 Fundamentals of Interpersonal Communication (0-3 Credits)
- COMMUNICATION Select ONE from COMM, THEA, FILM, MEST (0-3 Credits)
- ENGLISH English Elective² (0-3 Credits)
- HIS 10 History of the Modern World *OR* HIS 11 Introduction to the Modern World (0-3 Credits)
- HISTORY Select ONE from HIS, GEO, PHL (0-3 Credits)
- MODERN LANGUAGE Select TWO from the same language (0-6 Credits)
- SOCIAL SCIENCE Select TWO courses from ANT, CRJ, ECO, HSC, POL, PSY and SOC (0-6 Credits)

Additional Major Requirements

- PEA Physical Education *OR* HLT 91 Critical Issues in Health (1-2 Credits)
- Lab Science¹ (0-1 Credit)
- Free Electives (0-10 Credits)

SUBTOTAL: 29-30

¹ This requirement is satisfied if a student takes a 4-credit STEM variant course in Required Area C.

² Choose any ENG course from ENG 120-199.



LIBERAL ARTS AND SCIENCES

Associate in Science Degree | Transfer Degree

LIBERAL ARTS AND SCIENCES CURRICULUM (PATHWAYS)

60 Credits required for AS Degree

Required Core

- A. English Composition (6 Credits)
- B. Mathematical and Quantitative Reasoning
 - MTH 30¹ Pre-Calculus Mathematics OR
 - MTH 31 Analytic Geometry and Calculus I (4 Credits)
- C. Life and Physical Science
 - CHM 11¹ General Chemistry I (4 Credits)

SUBTOTAL 14

Flexible Core

- A. World Cultures and Global Issues (3 Credits)
- B. U.S. Experience in its Diversity (3 Credits)
- C. Creative Expression (3 Credits)
- D. Individual and Society (3 Credits)
- E. Scientific World
 - CHM 12¹ General Chemistry II (4 Credits)

Restricted Elective Select one course from Area A-E.² (3 Credits)

SUBTOTAL 19

Major Requirements

- MTH 31 Analytic Geometry and Calculus I (0 - 4 Credits)
- MTH 32 Analytic Geometry and Calculus II (5 Credits)
- Specialization requirements for option (17-18 Credits)
- Free Electives^{3,4} (0 - 5 Credits)

SUBTOTAL 27

BIOLOGICAL SCIENCES DEPARTMENT

Curriculum Coordinator: Dr. Charles Maliti

Biology Option

- BIO 11 General Biology I (4 Credits)
- BIO 12 General Biology II (4 Credits)
- CHM 31 Organic Chemistry I (5 Credits)
- CHM 32 Organic Chemistry II (5 Credits)

TOTAL 18

The Biology Option fully articulates with Lehman's B.S. in Anthropology and B.A. in Biology. The Biology Option also articulates with SUNY Empire State College. Copies of these agreements may be found on the BCC Transfer Planning website.

CHEMISTRY AND CHEMICAL TECHNOLOGY DEPARTMENT

Curriculum Coordinator: Dr. Soosairaj Therese

Chemistry Option

- CHM 31 Organic Chemistry I (5 Credits)
- CHM 32 Organic Chemistry II (5 Credits)
- Choose two of the three courses below:
CHM 33 Quantitative Analysis AND / OR
BIO 11 General Biology I AND / OR
PHY 11 Physics I (8 Credits)

TOTAL 18

Curriculum Coordinator: Dr. Sheldon Skaggs

Earth Systems and Environmental Science Option

- CHM 27 Principles of Laboratory Safety (2 Credits)
- CHM 33 Quantitative Analysis (4 Credits)
- Choose two of the three courses below:
ESE 11 Earth Systems Science: The Earth OR
ESE 12 Earth Systems Science: The Atmosphere OR
ESE 13 Earth Systems Science: The Ocean (8 Credits)
- ESE 21 Earth Systems Science:
The Environment (4 Credits)

TOTAL 18

ENGINEERING, PHYSICS AND TECHNOLOGY DEPARTMENT

Curriculum Coordinator: Dr. Akhil Lal

Physics Option

- MTH 33 Analytic Geometry and Calculus III (5 Credits)
- PHY 31 General Physics I (4 Credits)
- PHY 32 General Physics II (4 Credits)
- PHY 33 General Physics III (4 Credits)

TOTAL 17

¹ This program has obtained a waiver to require STEM variant courses in Required Core Area B and Area C and Flexible Core Area E. If students transferring into this program complete different courses in these areas, they will be certified as having completed the Common Core requirements, but it may not be possible for them to finish their degree within the regular number (60) of credits.

² Restricted Elective: must select one course from Flexible Core A-E. No more than two courses in any discipline or interdisciplinary field.

³ Students in this major are required to take MTH 30 or MTH 31 to fulfill required Core Area B. Note that MTH 30 is a prerequisite to MTH 31, so students who take MTH 30 to fulfill Required Core B will not have free elective credits.

⁴ It is recommended that students in the Earth Systems and Environmental Science Option take either GIS 11 or GIS 12 to fulfill free elective credits.

