Biology

Associate in Biology DTA/MRP

This pathway is applicable to students planning to prepare for upper division Bachelor's degree majors in Biology, including the medical field. This Biology MRP streamlines and facilitates preparation for upper division coursework in Biology across the state. Students planning a career in medicine, medical technology, dentistry, chiropracty, pharmacy, physical therapy or veterinary can begin their studies at LCC and gain a solid foundation in the basic sciences required in those fields.

Careers in medical professions require several years of advanced study. Medical coursework is rigorous and entry into professional schools is very competitive. A number of medical schools require a foreign language.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- Biology Associate in Biology DTA/MRP (lowercolumbia.edu/program-maps/stem/DTA-MRP-Biology)

Degree Requirements

Total credits required to earn this degree: 90

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  15 credits - ENGL& 101 English Composition I ***AND***
  ENGL& 102 Composition II ***AND***
  CMST& 220 (was SPCH 110) Public Speaking ***OR***
  CMST& 230 (was SPCH 114) Small Group Communication.
- **Quantitative Skills:**

  5 credits – MATH& 151 Calculus I
- **Humanities:**

  15 credits – Selected from at least two disciplines on the *Distribution List*. No more than 5 credits in foreign language at the 100 level, no more than 10 credits from any one discipline. No more than 5 credits in performance/skills courses are allowed.
- **Diversity:**

  5 credits - From the *Diversity Course List*. Courses that meet this requirement may also be used toward other graduation requirements. Diversity courses are listed in the quarterly schedule and identified by "DIV" attached to the course title. Example: SOC& 101 - Intro to Sociology: DIV.
- **Natural Sciences:**

  30 credits – BIOL& 221 Majors Ecology/Evolution: w/Lab, BIOL& 222 Majors Cell/Molecular: w/Lab, BIOL& 223 Majors Organismal Phys: w/Lab, CHEM& 161 General Chem w/Lab I, CHEM& 162 General Chem w/Lab II, and CHEM& 163 General Chem w/Lab III.

- **Social Sciences:**

  15 credits – Selected from at least two disciplines on the *Distribution List*. No more than 10 credits from any one discipline.
- **Electives:**

  10 credits -See advisor for approved list of electives. No more than 15 credits may be taken from the Restricted Course List on the *Distribution List.*

Program Outcomes

Students completing this program should acquire the following skills and abilities:

Core Competencies*

- Apply the scientific method of problem solving.
- Use quantitative reasoning to interpret data
- Demonstrate critical thinking.
- Express ideas and information in writing in a format that is clear and appropriate to both scientific and non-scientific audiences.
- Evaluate and explain the relationship between science and society.

Core Concepts*

- Apply the concepts of evolution to the diversity and adaptation of living organisms.
- Explain how matter and energy are stored and transformed by living systems.
- Explain how information is stored, copied, transferred, and expressed in biological systems.
- Describe the structure and function of biological components at various levels.
- Describe the significance of systems in maintaining life.

*Vision and Change: A Call to Action, AAAS (American Association for the Advancement of Science) with support from NSF (National Science Foundation)

Notes

Revised May 2021 (effective Summer 2021)

*It is recommended that sequence courses be completed at one institution.

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor and with an advisor at the college to which they plan to transfer for specific requirements. Consult the LCC catalog for LCC graduation requirements. Most four-year universities require one year of a single foreign language as a graduation requirement.