

# BIOTECHNOLOGY: CS

**Certificate of Specialization | 19 credit hours minimum**

**Area of Interest: Science, Technology, Engineering, and Math (STEM)**

Program Website (<https://stlcc.edu/programs-academics/pathways/s-t-e-m/biotechnology/>)

Academic Advising (<https://stlcc.edu/admissions/advising/>)

## Program Description:

### Florissant Valley

Biotechnology is applied biology of cells and their products. The biotechnology classes in this program provide introductory knowledge and skills in life science industry settings.

**Locations.** This program is offered in its entirety at Florissant Valley.

**Related Programs.** The Biotechnology Department offers an associate and a certificate in the following areas:

Biotechnology, Associate in Applied Science (<http://catalog.stlcc.edu/programs/biotechnology-aas/>)

Life Science Laboratory Assistant, Certificate of Specialization (<http://catalog.stlcc.edu/programs/life-science-laboratory-assistant-certificate-specialization/>)

**Cost of Attendance.** For more information on cost of attendance visit MoSCORES (<https://scorecard.mo.gov/Search/>).

**Program Career and Salary Information.** Pursuant to Missouri HB 1606 (2018), information regarding the number of credit hours, program length, employment rate, wage data, and graduates employed in careers related to their program of study at St. Louis Community College can be found at the following URL: [https://scorecard.mo.gov/scorecard/\(https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E\\_i2lO96zEytILO-s5xaJCQ\)](https://scorecard.mo.gov/scorecard/(https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E_i2lO96zEytILO-s5xaJCQ)). Search using School / Program "St. Louis Community College" and choose the degree or credential type of interest.

The following limitations to the data apply: Information provided is based on the most recent cohorts available. Typically, most recent cohorts for wage and completion data are six years prior to the current academic year. Time to complete a program of study varies depending on the number of credit hours students earn per semester.

**Interested in this program?** Start the enrollment process by visiting the Apply to STLCC (<https://www.stlcc.edu/admissions/apply-to-stlcc/>) page.

## At the completion of the program, students are expected to:

1. describe experimental procedures and conclusions.
2. perform Good Documentation Practices from which data analysis, project decisions, and successive experimental designs are achieved.
3. apply recombinant DNA technology techniques focusing from DNA to protein, and inheritance of genetic information.
4. adhere to laboratory standards including use of Personal Protective Equipment, documentation and organization and cleanliness in the workspace.
5. collaborate within a team environment.

6. design experiments using basic molecular biology methodologies with proper controls and anticipated results defined.
7. perform experiments using basic molecular biology methodologies such as separation of macromolecules through electrophoretic techniques, polymerase chain reaction, cell culture, recombinant DNA techniques, and protein expression/purification.
8. assess the contributions of biotechnology to advances in the fields of agriculture and human health.

Code	Title	Credit Hours
BIO 104	Basic Laboratory Methods for Biotechnology	3
BIO 219	Biotechnology I	5
BIO 220	Biotechnology II	5
BIO 226	Advanced Topics in Biotechnology (two sections required)	3
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<b>Total Credit Hours</b>		<b>19</b>