Biotechnology Research

## HEALTH SCIENCE

*Level Four*

*Level Three*

*Level Two*

*Level One*

**Biotechnology Research** combines advanced methods and technologies with the scientific principles that comprise today’s emerging biomedical fields. Upon completion of this program, proficient students will be able to identify careers in these fields, describe their scientific foundations, research technologies and development in all areas of healthcare, and relate how these technologies are transforming many disciplines and impacting society at large. In addition, students will conduct an ongoing original research project or experiment on an emerging biotechnology application of their choice.

**Dual Credit/ Dual Enrollment/ Industry Certifications options include:**

* Dual Credit Anatomy & Physiology

Career Opportunities

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**For more information, contact:**

**High School**

**Systme/County Name**

**CTE Director: Name**

**Email**

**Instructor: Name**

**Email**

**Career Opportunities**

In Tennessee, more than 1,500 life sciences businesses exist, employing more than 49,000 Tennesseans. Those employees earn an average of $75,000 annually, significantly more than the average private-sector wage of about $40,000. Looking to the future, the biosciences remain positioned for strong economic growth. The U.S. Department of Labor projects that the biosciences will grow at an average annual rate of 1.5 percent between 2008 and 2018, making it one of the fastest growing industry sectors.

**Annual Average Openings for Clinical Lab Technicians in Tennessee (2014-2022)**





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| --- |
| Postsecondary Offerings Aligned to this Program of Study |
| School | **Degree Program** |
| Southwest Tennessee Community College | A.S. Biotechnology Technician or Forensic Science Technician |
| East & Middle Tennessee State Universities | B.S. Forensic Science |
| For more college and career planning resources, visit http://collegefortn.org. |

**POSTSECONDARY OPTIONS**

Have you registered for the Tennessee Promise? Seniors enrolled in this program have the chance to attend a two-year program at a Tennessee College of Applied Technology (TCAT), community college, or some 2-year university programs for free! To learn more, please see your school counselor or visit <http://www.tennesseepromise.gov>.

 Students in this program of study will be eligible to join HOSA: Future Health Professionals. In addition to school events, students will be able to compete at the regional, state, and national level.

HOSA's two-fold mission is to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people. HOSA's goal is to encourage all health occupations instructors and students to join and be actively involved in the HSE-HOSA Partnership. HOSA provides a unique program of leadership development, motivation, and recognition exclusively for secondary, postsecondary, adult, and collegiate students enrolled in HSE programs. HOSA is 100% health care! For more information, please visit <http://www.hosa.org> .

**Biotechnology Research Related Occupations with Positive Growth In Tennessee (2014-2022)**

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| --- | --- | --- |
| Occupations | Total Percent Change | Total Annual Av. Openings |
| Forensic Science Tech | 3.80% | 10 |
| Biomedical Engineer | 28.00% | 20 |
| Clinical Laboratory Technicians | 18.7% | 310 |