**COLLIN COLLEGE**

**COURSE SYLLABUS**

Course Information

**Course Number:** BITC 2441

**Course Title:** Molecular Biology Techniques

**Course Description:** In-depth coverage of the theory and laboratory techniques in molecular biology with an emphasis on gene expression and regulation, recombinant DNA, and nucleic acids. Lab required.

**Course Credit Hours:** 4

Lecture Hours: 3

Lab Hours: 4

**Prerequisites:** BIOL 1414 and BIOL 1415 or consent of Instructor

**Student Learning Outcomes:**

* **State-mandated Outcomes:**

1. Describe major theories of DNA science.
2. Measure gene regulation and expression.
3. Demonstrate recombinant DNA technology procedures and protein analysis.
4. Demonstrate basic molecular biology techniques.
5. Use bioinformatics tools to identify and analyze biomolecules.

* **Additional Collin Outcomes:**

1. Demonstrate mastery of aseptic technique and safe laboratory practices in a laboratory setting.
2. Apply fundamental knowledge of cellular biology and chemistry as it applies to molecular biology.
3. Utilize the scientific method in designing a series of experiments to optimize conditions for an experiment.

**Withdrawal Policy:** See the current *Collin Registration Guide* for last day to withdraw.

**Collin College Academic Policies:** See the current *Collin Student Handbook.*

**Americans with Disabilities Act Statement:** Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student’s responsibility to contact the ACCESS office, SCC-D140 or 972.881.5898 (V/TTD: 972.881.5950) to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

*Fall 2015*