Stark State College
Dual Enrollment Honors Program
Advanced Biotechnology Methods, (5 Credit Hours)

The Advanced Biotechnology Methods track is open to a total of 12 high school students that meet the requirements for program admission.

Biotechnology represents the cutting edge of science leading to groundbreaking discoveries in a wide variety of fields and is one of the fastest growing industries in the United States and in Northeastern Ohio. Stark State’s Biotechnology program provides students with a rich, hands-on lab experience that integrates technology, research and an academic experience in an advanced college lab environment.

This program is an option for students thinking of articulating into associate and bachelor degree programs in biotechnology, biology, or chemistry at a two- or four-year college or university. Many analysts have predicted biotechnology will be one of the most important applied sciences of the 21st century. This course is a great addition to the advanced high school curriculum offering college credit.

**Semester One – August to December**
BST120 meets once a week on Monday 7:30 to 8:20am
BST121 meets two times per week on Wednesday and Friday 7:30 to 8:50am
Students will take BST120 and BST121 concurrently in semester one.

**BST120: Intro to Biotechnology (1 credit, 1 contact hour)**
This course will introduce students to the historical and technical concepts responsible for the rapidly growing biotechnology industry. Topics include the history of biotechnology applications such as pharmaceutical research and manufacturing, advancements in agricultural productivity as well as identifying the basic techniques and instrumentation used in the applications.

**BST121: Basic Biotechnology Methods (1 credit, 2 contact hours)**
Students will be exposed to and practice the various techniques used in a modern biotechnology lab. Such techniques include basic laboratory measurement and calculations (introducing micro- and nano-scale) pipetting, reagent preparation, detailed note taking, recordkeeping, etc. Students will be taught to follow standard lab protocols to ensure good lab practices and adherence to basic governmental and safety regulations.

**Semester Two – January to May**
BST122 meets three times per week on Monday and Wednesday 7:30 to 8:50am
and on Friday 7:00 to 8:50am

**BST122 – Advanced Biotechnology Methods (3 credits, 5 contact hours)**
This course expands on the techniques and protocols introduced to the students in BST121. Advanced biotechnology/bioscience techniques such as gel electrophoresis, centrifugation, cellular and molecular sample preparation and handling will be added, while comprehensively reinforcing and strengthening skills in the performance of basic techniques and protocols.

**Prerequisites**
BST121 - Basic Biotechnology Methods

**There is no cost to the student for this program.**

INTERESTED STUDENTS need to meet with their guidance counselor and complete a dual enrollment admissions packet for admission to Stark State College and this program. Completed student enrollment packets (dual enrollment application form, high school transcripts, COMPASS scores & course enrollment form) need to be sent to Waneta Petty at Stark State by May 1, 2013.