

Fall 2003

**BIOTECHNOLOGY FOR
HIGH SCHOOL
SCIENCE TEACHERS**

Fall 2003

Online Class

Offered by Dr. Mary Dereski, Associate Professor
Institute of Environmental Health Sciences Center,
Community Outreach and Education Program (COEP)
Wayne State University

3 Credit Graduate Level Class through the College of Education,
Class Listing SCE7010-902
Course Reference Number 14413

Biotechnology is defined as “the commercial application of living organisms or their products, which involves the deliberate manipulation of their DNA molecules”. It is a term that few people had heard of ten years ago. Most biotechnology (Molecular Biology, Biochemical Engineering, Biochemistry, and Genetics) teaching takes place in upper-level undergraduate and graduate Molecular Biology courses or research laboratories. However, today it is a rapidly growing field at the cutting edge of recent scientific developments that is appropriate for the high school student. Issues such as genetically altered food and beverages, options on planning a family, stem cell research approval, are all related to biotechnology. As a result of the growing awareness by the public today, biotechnology is fast becoming a household word. Understanding of these topics should accompany the awareness. This is especially true for students taking science courses at the high school level. The following Biotechnology course offering will allow you to become familiar with the basic concepts and technologies that are appropriate for classroom introduction to high school students. You will also be introduced to the growing academic and career opportunities for your students in this field.

The goals of the classes are as follows:

1. To expand and enhance opportunities for high school teachers/students to study and use biotechnology
2. To introduce high school teachers/students to the techniques and skills that are necessary to work in biotechnology related careers.
3. To increase teacher/students’ awareness of the impact biotechnology will have on their own lives and society in general.

Online Lecture topics will include:

- Understanding the Genetic Code
- DNA to RNA to Protein function
- Clinical and research applications of understanding the Genetic Code
- Exploring the effects of Genetic Code changes
- Current topics in biotechnology presented in the media

To Register:

Register online at www.wayne.edu, or contact WSU admissions office at 313-577-3577. If you are not a graduate student at Wayne State University, you can register for this three-credit class as a guest student.