

Bakersfield College
Biology 51: Careers in Biotechnology
Spring 1999

General Information

Instructor: Dr. Janice Toyoshima
Office/Phone: Science & Engineering Room 57B/395-4225
Office Hours: Monday through Friday, 9-11 am, or by appointment
E-mail Address: jatoyosh@bc.cc.ca.us
Units: 0.5
Prerequisites: None
Required Text: None
Required Items: 3-ring binder or folder with pockets
Meeting Time: Tuesday, 6:00 to 6:50 p.m.
19 Jan 1999 to 16 Mar 1999
Meeting Place: Math/Science Room 24

Course Description

Introduces the student to biotechnology skills, products, and career opportunities. Field trips and guest speakers are an integral part of the program. Prerequisites: None. Hours: (9) 1 lecture for 9 weeks. Field trips required. Offered: F, S. CCS: Occupational Education. Not transferable: Associate Degree only.

Course Objectives

1. Expose the student to the field of biotechnology including skills, opportunities, and employment possibilities.
2. Introduce the students to the requirements to complete training and become employed in a biotechnology field.
3. Facilitate the student's need in the construction of a student plan and educational goal.

Student Evaluation

Points are earned for the following activities:

Weekly 10-point assignments	= 80 points
Homework assignments	= 80
Final Report & presentation	= <u>80</u>
Total	= 240 points

Letter grades are assigned according to the following scale:

A = 91 to 100 percent
B = 80 to 89 percent
C = 68 to 79 percent
D = 57 to 67 percent
F = less than 57 percent

Note: This scale is *not* subject to change.

Course Policies & Procedures

1. Class meets at the scheduled time unless otherwise indicated by the instructor. Attendance will be taken at the beginning of the class period.
2. We will be meeting in a laboratory room, so there will be no food or beverages allowed. The room is designated a non-smoking area.
3. Each person is expected to complete his/her own class assignments and quizzes. Plagiarism is penalized by a failing grade for all parties involved. Please review the college policy regarding plagiarism in the current catalog or student handbook.
4. Courteous behavior is expected at all times. Please treat others as respectfully as you wish to be treated. Disruptive or inappropriate behavior will not be tolerated. Refer to the student handbook for college policy regarding student (and faculty) conduct.
5. Each student will keep a record of his/her grades. A signed, dated original grade sheet must be turned in during the last class meeting.

Tentative Schedule of Topics (subject to change)

<u><i>Week of</i></u>	<u><i>Topic</i></u>	<u><i>Assignment</i></u>
Jan. 18	Biotechnology: Past and Present	Verify enrollment Assignment 1
Jan. 26	DNA and Molecular Biology	Assignment 2
Feb. 2	Fermentation and Food	Assignment 3 HW 1: 20 Biotech Products
Feb. 9	DNA Technology Products	Assignment 4 HW 2: Three Biotech Jobs
Feb. 16	Biotechnology on the Farm	Assignment 5 HW 3: Social Issues
Feb. 23	Biotechnology's Impact on Society	Assignment 6 Final Report Explained
Mar. 2	Careers in Biotechnology	Assignment 7
Mar. 9	Careers in Biotechnology	Assignment 8 Project Presentations
Mar. 16	Careers in Biotechnology	Project Presentations

Weekly Assignments (10 pts. each)

- 1 What is Biotechnology?
- 2 One Biotechnology Innovation
- 3 What is Fermentation?
- 4 Home Pregnancy Testing
- 5 What is Cloning?
- 6 What is Gene Therapy?
- 7 One Biotechnology Web Site Worth Watching
- 8 If I Took This Class Again, I Would Like To Do/See...

Homework Assignments

Twenty Biotechnology Products (40 pts.)

Three Biotechnology Jobs (15 pts.)

Biotechnology's Impact on Society: Social Issues (25 pts.)

Project (80 pts.)

Preparing For A Career in Biotechnology—What I Have To Do

Additional Notes