



Philadelphia University
Faculty of Science
Department of Biotechnology and Genetic Engineering
Second Semester, 2007/2008

Course Syllabus	
Course Title: Ethics in Biotechnology	Course code: 240491
Course Level: Undergraduate	Course prerequisite (s) and/or corequisite (s):
Lecture Time: 11-12, Thursday	Credit hours: 1

Academic Staff Specifics				
Name	Rank	Office Number and Location	Office Hours	E-mail Address
Adeeb Al-Zoubi, Ph.D.	Assistant Professor	Science S-904	Sun: 10-11 Tues: 10-11 Wed: 11-12	Alzoubiadeeb@ yahoo.com

Course Module Description
<p>This is ethics in biotechnology class with one credit hour. It is intended for students in the Biotechnology and Genetic Engineering field. I intend to familiarize the students with the ethical standards associated with employing techniques in biotechnology in various laboratory settings. I will concentrate on recent implications of newly developed biotechniques that are usually controversial in nature. In addition to <i>classic</i> ethical issues in biotechnology, I will emphasize on recent advancements, such as the use of animals in research, cloning debates, use of embryonic stem cells, use of embryonic tissues and organs, and ex-vivo tissue and organ regeneration. Students will be asked to select a topic on which they will write a report and make an oral presentation towards the end of the semester.</p>

Course Module Objectives
1. Introduce the students to the common fields in biotechnology
2. Steer the students towards the moral concerns of the biotechnology community
3. Present the students with frequent concerns of social communities concerning biotechnical issues.
4. Present the common controversial biotechnical issues
5. Assist students in developing presentation techniques for controversial issues

Course Module Components
1. Introductory lectures on common bioethical issues
2. Assignment of projects
3. Supervision of students progress
4. Oral presentations

Textbook Information: No textbook for this class	
Title	No textbook associated with this class

- **Support material (s):** Depends on the student's choice of topic
- **Study guide (s) (if applicable):** Depends on the student's choice of topic
- **Homework and laboratory guide (s):** Not applicable.

Teaching & Learning Methods
Mainly classroom discussions

Learning Outcomes: Upon successful completion of this course, students will be familiar with the concepts related to the following topics:
1. Common fields in biotechnology
2. Ethical issues in biotechnology fields
3. How to address social concerns regarding common biotechnology issues
4. How to deal with controversial issues in biotechnology
5. How to present their own ideas in professional manners

- **Cognitive skills (thinking and analysis):**

I intend to utilize my skills and experience in the different fields of biotechnology to advance the students' understanding of controversial and sensitive issues.

- **Communication skills (personal and academic):**

The course will be taught in the English language. Students will be asked to present their chosen topics to the class at the end of the semester.

Allocation of Marks	
Assessment Instruments	Mark
Written Reports	40 %
Oral presentations	40%
Classroom discussions/participation	20%
Total	100 %

Documentation and academic honesty	
Cheating	Will not be allowed or tolerated
Attendance	Is mandatory. Students with more than 10% of class time absences will be dismissed from the class.
Graded Exams	3 exams, 40-50 questions in each exam, multiple choice, matching type, filling blanks, identifying molecules or mechanisms
Participation	Strongly encouraged, and will be calculated into the 10% of assignment part

Course/module academic calendar	
Week	Topics
1	Introduction to ethics in biotechnology
2	Ethical issues to deal with in biotechnology fields
3	Regulations and ethics in biotechnology
4	Assignment of projects and presentations
9	Oral presentations
12	Oral presentations
13	Oral presentations
14	Oral presentations
15	Oral presentations
15	Oral presentations
16	Oral presentations

Expected workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

Module references

Depends on the student's topic.