

Course Outline (Higher Education)

School:	School of Health and Life Sciences
Course Title:	FUNDAMENTALS OF BIOTECHNOLOGY
Course ID:	BTHGC1802
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED:	010599

Description of the Course :

This unit will cover classical and modern biotechnology, including recent developments in molecular biology and its applications in such diverse areas as agriculture, forestry, food, medicine and marine sciences. This includes an introduction to bio-prospecting and pharmaceuticals; genomics, proteomics and bio-informatics; environmental and industrial biotechnology and the current issues and concerns surrounding biotechnology. Related topics such as human genome project, risk assessment, bio-safety and genetically modified organisms and crops, cloning, patents, ethics intellectual property rights and the regulatory framework for biotechnology in various countries will be discussed.

Grade Scheme: Graded (HD, D, C, etc.)

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks..

Learning Outcomes:

On completion of this unit students will be able to:

1. Demonstrate knowledge of the fundamental techniques and the basic principles of molecular biology and recombinant DNA technology that are required for biotechnology;
2. Demonstrate an understanding of the applications and impact of biotechnology in the areas of agriculture, medicine, and industry;
3. Assess and manage occupational health and safety issues related to biotechnology activities in the laboratory, and in environmental and industrial settings;
4. Demonstrate understanding of the basic concepts of biotechnology business, intellectual property rights, and the regulatory framework governing the biotechnology industry;
5. Apply knowledge of the fundamental ethical and regulatory issues surrounding the biotechnology field;
6. Communicate biotechnology findings effectively in the form of oral and written scientific reports.

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Course Content:

Values and Graduate Attributes:

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
Final examination	Final examination	Final examination	50%
Quizzes	Quizzes	Quizzes	15%
Tutorial activities	Tutorial activities	Tutorial activities	15%
Web pages	Web pages	Web pages	20%

Adopted Reference Style: