

Master Syllabus

BTN 2220 - Microbiology & Fermentation Methods

Division: Science, Mathematics and Engineering

Department: Biotechnology

Credit Hour Total: 3.0

Lecture Hrs: 2.0 **Lab Hrs:** 3.0

Prerequisite(s): BIO 1111 AND BTN 1130 AND CHE 1111

Other Prerequisite(s): AND Restricted to Majors

Date Revised: July 2014

Course Description:

Introduction to fermentation and microbial metabolism. Two classroom, three lab hours per week.

General Education Outcomes:

- ▣ Written Communication Competency
- ▣ Critical Thinking/Problem Solving Competency
- ▣ Values/Citizenship/Community Competency
- ▣ Computer Literacy Competency
- ▣ Information Literacy Competency

Course Outcomes:

Microbial Processes in Human Life

Understand and describe the significance of microbial processes in human life, with emphasis on the intestinal tract.

Assessment Method: Locally developed exams

Performance Criteria: 60% or more of available exam points

Metabolism of Microorganisms

Describe and understand the metabolism of microorganisms.

Assessment Method: Locally developed exams

Performance Criteria: 60% or more of available exam points

Fermentation in the Industrial World

Describe and understand the process of fermentation in industrial settings, with emphasis on beer and wine production.

Assessment Method: Locally developed exams

Performance Criteria: 60% or higher of available exam points

Outline:

Microbiology
Fermentation
Record Keeping Procedures
Purification Strategy
Bioreactors
Microorganisms
Identification Techniques