

Master Syllabus

BIO 2235 - Genetics

Division: Science, Mathematics and Engineering

Department: Biology

Credit Hour Total: 4.0

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

Prerequisite(s): BIO 1111 OR BIO 1171

Date Revised: October 2013

Course Description:

Fundamental principles, concepts and techniques of genetics. Lab work includes basic methods of genetic research and analysis. Three classroom, two lab hours per week.

General Education Outcomes:

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

Course Outcomes:

Principles of inheritance

Characterize and explain the concepts of classical inheritance and how this information applies to modern medicine.

Assessment Method: Locally developed exams

Performance Criteria:

Lecture exams and lab exams: 60% of total points (500) accumulated at the end of the course.

Advances in genetic technology

Critically discuss and appreciate the potentials of genetic technological advancement in biomedical research.

Assessment Method: Locally developed exams

Performance Criteria:

Lab exams : 60% of total points (500) accumulated at the end of the course

Problem solving with genetic data

Evaluate, analyze, and solve genetic problems from experiments within the lab setting.

Assessment Method: Locally developed exams

Performance Criteria:

Lab exams and lab notebooks: 60% of total points (500) accumulated at the end of the course

Outline:

Genetics

Population genetics

Molecular genetics

Society impacts