

## 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

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### 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