

### **OPTION: APPLIED MICROBIOLOGY**

The Applied Microbiology option prepares you for professional positions in algal biofuels, environmental monitoring and improvement, industrial applications of microbiology, food sanitation, research, or graduate study.

#### **Required Courses**

BCHE 341	Survey of Biochemistry	4 cr. (3+3P)
BIOL 311 L	General Microbiology Laboratory	2 cr. (4P)
BIOL 451	Physiology of Microorganisms	3 cr.
BIOL 473	Ecology of Microorganisms	3 cr. (2+3P)
CHEM 313	Organic Chemistry I	3 cr.
CHEM 314	Organic Chemistry II	3 cr.
CHEM 315	Organic Chemistry Laboratory	2 cr. (6P)
EPWS 373	Fungal Biology	3 cr. (2+2P)
EPWS 420	Environmental Behavior of Pesticides	3 cr.
EPWS 486	Plant Virology	3 cr.
MATH 142G	Calculus for the Biological and Management Sciences	3 cr. (2+2P)
	PHYS 110G or above	4

#### **Two courses from the following**

A ST 456	Statistical Methods and Data Analysis	3 cr. (2+2P)
AGRO 471	Plant Mineral Nutrition	3 cr.
BIOL 477	Applied and Environmental Microbiology	4 cr.
E S 301	Principles of Ecology	3 cr.
E S 370	Environmental Soil Science	3 cr.
EPWS 455	Advanced Integrated Pest Management	3 cr.
EPWS 462	Parasitology	3 cr.
E S 370	Environmental Soil Science	3 cr.
EPWS 451	Special Topics	1-4 cr.
EPWS 481	Plant Nematology	3 cr. (2+2P)
GEOG 381	Cartography and Geographic Information Systems	4 cr. (3+3P)
SOIL 257	Introduction to Weather Science	4 cr. (3+3P)
SOIL 312	Soil Management and Fertility	3 cr.
TOX 423	Environmental Toxicology	3 cr.