

# B.S. in Microbiology Graduation Checklist

Microbiology Major Requirements
<p>BCMB(BIOL)(CHEM) 3100 (4 hrs) - Intro Biochemistry and Molecular Biology  <b>or</b> BCMB 4020 (3 hrs) - Biochemistry and Molecular Biology II</p> <p>MIBO 3500 (3 hrs) - Introductory Microbiology            MIBO 3510L (3 hrs) - Introductory Microbiology Laboratory            MIBO 4090 (3 hrs) - Prokaryotic Biology            MIBO 4300 (3 hrs) – Microbial Diversity and Evolution            (Note: Pending CAPA approval, MIBO 4300 will become a 2 hr course).            MIBO(POPH)(IDIS) 4450-4450L (4 hrs) – Microbial Genetics and Genomics <b>or</b> GENE 3200 (4 hrs) Genetics</p>



MAJOR REQUIRED I (Intensive MIBO Lab) – Choose one
<p><i>The following also fulfill the Experiential Learning Requirement.</i></p>
<p>MIBO 4600L (4 hrs) – Experimental Microbiology Lab            MIBO 4970H (4 hrs) – Honors Research            Two semesters of MIBO 4900L (4 hrs each) – Directed Research</p>

MAJOR REQUIRED II - Choose two
<p>CBIO(MIBO)(IDIS) 4100 (3 hrs) - Immunology            EHSC(FDST)(MIBO) 4310-4310L (4 hrs) – Environmental Microbiology            FDST(MIBO) 4120-4120L (3 hrs) – Food Fermentations            MARS(MIBO) 4620 (3 hrs) – Microbial Ecology            MIBO(POPH) 4220 or 4220S (3 hrs) – Pathogenic Bacteriology            MIBO 4500 (3 hrs) – Bacterial Symbioses            MIBO 4600L (4 hrs) – Experimental Microbiology Lab            MIBO 4680 (4 hrs) – Industrial Microbiology and Biotechnology            MIBO 4700 (3 hrs) – Medical Mycology            POPH(MIBO)(IDIS) 4650 (3 hrs) – Introduction to Virology            MIBO(POPH)(IDIS) 4450-4450L (4 hrs) – Microbial Genetics and Genomics</p>

MAJOR REQUIRED III (Upper level science elective) – Choose one from any 3-4 hour course below.	
<p>CRSS(MIBO) 4610-4610L (3 hrs) – Soil Microbiology            MIBO 4500 (3 hrs) – Bacterial Symbioses            EHSC(FDST)(MIBO) 4310-4310L (4 hrs) – Environmental Microbiology            MARS(MIBO) 4620 (3 hrs) – Microbial Ecology</p>	<p>MIBO 4600L (4 hrs) – Experimental Microbiology Lab            MIBO 4680 (4 hrs) – Industrial Microbiology and Biotechnology            MIBO(POPH)(IDIS) 4450-4450L (4 hrs) – Microbial Genetics and Genomics</p>

Major Required	Computer Science • Math • Statistics
<p>PHYS 1111/1111L (4 hrs) – Introductory Physics-Electricity and Magnetism, Optics, Modern Physics <b>or</b>            PHYS 1211/1211L (4 hrs) – Principles of Physics for Scientists and Engineers – Mechanics, Waves, Thermodynamics</p> <p>PHYS 1112/1112L (4 hrs) – Introductory Physics-Electricity and Magnetism, Optics, Modern Physics <b>or</b>            PHYS 1212/1212L (4 hrs) – Principles of Physics for Scientists and Engineers – Electricity and Magnetism, Optics, Modern Physics</p>	<p><b>Choose one</b> course from the following:</p> <p>BINF(BCMB) 4005 (2 hrs) – Essential Computing Skills for Biologists            BIOS 2010 (4 hrs) – Biostatistics for Public Health Sciences            CSCI 1210 (3 hrs) – Computer Modeling and Science            CSCI 1301/1301L (4 hrs) – Introduction to Computing and Programming            BIOE 8110 (3 hrs) – Mathematical Biology            GENE 4220L (3 hrs) – Bioinformatics and Modeling Laboratory            PBIO(BIOL)(BINF) 4550 (3 hrs) – Bioinformatics Applications            MATH 2260 (4 hrs) – Calculus for Science and Engineering            MATH(BINF) 4780 (3 hrs) – Mathematical Biology            STAT 2000 or 2100H (4 hrs) – Introductory Statistics</p>