


# B.S. in Microbiology Graduation Checklist

## Effective Summer 2019

Microbiology Major Requirements	
BCMB 3100 (4 hr) - Intro Biochemistry and Molecular Biology or BCMB 4020 (3 hr) - Biochemistry and Molecular Biology II MIBO 3500 (3 hr) - Introductory Microbiology MIBO 3510L (3 hr) - Introductory Microbiology Laboratory MIBO 4090 (3 hr) - Prokaryotic Biology (POPH)(MIBO)(IDIS) 4450-4450L (4 hr) – Microbial Genetics and Genomics or GENE 3200 (4 hrs) Genetics	

MAJOR REQUIRED I (Intensive MIBO Lab) – Choose one
<i>The following fulfill the Experiential Learning Requirement</i>  MIBO 4600L (4 hr) – Experimental Microbiology Lab MIBO 4970R (4 hr) – Honors Research MIBO 4970L (4 hr) – Directed Research

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

\* Only if not used for Major Required I or III

\*\*Only if not used for Major Requirements

MAJOR REQUIRED III (Upper level science elective) – Choose one	
CRSS(MIBO) 4610-4610L (3 hr) – Soil Microbiology MIBO 4500 (3 hr) – Bacterial Symbioses*** EHSC(FDST)(MIBO) 4310-4310L (4 hr) – Environmental Microbiology MARS(MIBO) 4620 (3 hr) – Microbial Ecology	MIBO 4600L (4 hr) – Experimental Microbiology Lab**** MIBO 4680 (4 hr) – Industrial Microbiology and Biotechnology POPH(MIBO)(IDIS) 4450-4450L (4 hr) – Microbial Genetics and Genomics*****

\*\*\* Only if not used for Major Requirement II

\*\*\*\* Only if not used for Major Required I or II

\*\*\*\*\* Only if not used for Major Requirements or Major Required II

Major Required	Computer Science • Math • Statistics – Choose one
PHYS 1111/1111L (4 hr) – Introductory Physics-Mechanics, Waves, Thermodynamics or PHYS 1211/1211L (4 hr) – Principles of Physics for Scientists and Engineers – Mechanics, Waves, Thermodynamics  and  PHYS 1112/1112L (4 hr) – Introductory Physics-Electricity and Magnetism, Optics, Modern Physics or PHYS 1212/1212L (4 hr) – Principles of Physics for Scientists and Engineers – Electricity and Magnetism, Optics, Modern Physics	BINF(BCMB) 4005 (2 hr) – Essential Computing Skills for Biologists BIOS 2010-2010L (4 hr) – Elementary Biostatistics CSCI 1210 (3 hr) – Computer Modeling and Science CSCI 1301/1301L (4 hr) – Introduction to Computing and Programming BIOE 8110 (3 hr) – Biological Engineering GENE 4220L (3 hr) – Bioinformatics Laboratory BINF(PBIO) 4550 (3 hr) – Concepts in Bioinformatics and Omics MATH 2260 (4 hr) – Calculus II for Science and Engineering MATH(BINF) 4780 (3 hr) – Mathematical Biology STAT 2000 or 2100H (4 hr) – Introductory Statistics STAT 3110 (3 hr)– Intro to Statistics for Life Sciences STAT 3120 (3 hr)– Intro to Probability for Life Sciences

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