

Genetics & Plant Biology Major Requirements

Lower Division Requirements (all major requirements must be taken for a letter grade)	
Math <input type="checkbox"/> Math 16A/1A: Calculus I [3-4] <input type="checkbox"/> Math 16B/1B: Calculus II [3-4]	Chemistry <input type="checkbox"/> Chem 1A/L: General Chemistry [4] <input type="checkbox"/> Chem 3A/L: Organic Chemistry I [5] <input type="checkbox"/> Chem 3B/L: Organic Chemistry II [5]
Statistics <input type="checkbox"/> Stat 2, 20, 131A: Probability & Statistics [4] <i>other stat courses may be approved by dept.</i>	Biology <input type="checkbox"/> Bio 1A/L: General Biology [5] <input type="checkbox"/> Bio 1B: General Biology [4] <input type="checkbox"/> PMB 20: Current Topics in Plant Biology [1]
Humanities & Social Sciences <input type="checkbox"/> 15 units of coursework taken from L&S breadth list, excluding biological and physical science courses <i>maximum of 6 foreign language units</i>	Physics <input type="checkbox"/> Physics 8A: Introductory Physics [4]
Upper Division Core Requirements	
<input type="checkbox"/> PMB 101L: Experimental Plant Biology Lab [2] <input type="checkbox"/> PMB C107L: Principles of Plant Morphology and Lab [5] <input type="checkbox"/> PMB 135: Physiology and Biochemistry of Plants [3]	<input type="checkbox"/> PMB 150: Plant Cell Biology [3] <input type="checkbox"/> PMB 160: Plant Molecular Genetics [3]
Plant Biology Tracks: Choose from Option 1 or 2	
Option 1: Choose a track from below and select five courses for a minimum of 15 units.	
Option 2 (Experimental Plant Biology Track): Design your own track. Choose any five courses for a minimum of 15 units from the Plant Biology Tracks below.	
Biotechnology and Bioenergy	Plant Diversity and Evolution
<ul style="list-style-type: none"> • PMB C103: Bacterial Pathogenesis [3] • PMB C112: General Microbiology [4] • PMB 120/L: Biology of Algae [4] • PMB 122: Bioenergy [2] • PMB C124: Lectures on Energy: Energy from Biomass [3] • PMB 142: Plant Genomics and Bioinformatics [2]; <i>must be taken concurrently with C144L</i> • PMB C148: Microbial Genomics and Genetics [4] • PMB 170: Modern Applications of Plant Biotechnology [2] • PMB 180: Environmental Plant Biology [2] • PMB 185: Techniques in Light Microscopy [3] • Ene Res C100: Energy and Society [4] • ESPM 108A: Trees: Taxonomy, Growth and Structure [3] • ESPM 108B: Forest Genetics [3] • ESPM 152: Global Change Biology [3] • ESPM 162: Bioethics and Society [4] • IB 117/L: Medical Ethnobotany [4] • IB 151: Plant Physiological Ecology [2] • IB 162: Ecological Genetics [4] • MCB 102: Biochemistry and Molecular Biology [4] • PMB H196/199: Research [3-4] 	<ul style="list-style-type: none"> • PMB C102L: Diversity of Plants and Fungi [4] • PMB 110/L: Biology of Fungi [4] • PMB 113: California Mushrooms [3] • PMB 120/L: Biology of Algae [4] • PMB 142: Plant Genomics and Bioinformatics [2]; <i>must be taken concurrently with C144L</i> • Environmental Plant Biology [2] • PMB 180: Environmental Plant Biology [2] • PMB 185: Techniques in Light Microscopy [3] • ESPM 108A: Trees: Taxonomy, Growth and Structure [3] • ESPM 108B: Forest Genetics [3] • ESPM 149: Molecular Ecology [2] • ESPM 152: Global Change Biology [3] • IB 102LF: California Plants [4] • IB 117/L: Medical Ethnobotany [4] • IB 151: Plant Physiological Ecology [2] • IB 154: Plant Ecology [3] • IB 157: Ecosystems of California [4] • IB 160: Evolution [4] • IB 161: Population and Evolutionary Genetics [4] • IB 162: Ecological Genetics [4] • IB 163: Molecular and Genomic Evolution [3] • IB 168L: Systematics of Vascular Plants [4] • IB 181: Paleobotany [3] • PMB H196/199: Research [3-4]
Plant Genetics, Genomics and Bioinformatics	Plant Microbe Interactions
<ul style="list-style-type: none"> • PMB C134: Chromosome Biology and Cytogenetics [3] • PMB 142: Plant Genomics and Bioinformatics [2]; <i>must be taken concurrently with C144L</i> • PMB C144(L): Intro to Protein Informatics [4]; <i>C144L optional [2]</i> • PMB C148: Microbial Genomics and Genetics [4] • PMB 165: Plant Microbe Interactions [3] • PMB 170: Modern Applications of Plant Biotechnology [2] • PMB 185: Techniques in Light Microscopy [3] • BioE 131: Intro to Computational Molecular and Cell Biology [4] • BioE 143: Computational Methods in Biology [4] • IB 162: Ecological Genetics [4] • IB 163: Molecular and Genomic Evolution [3] • Math 127: Math. and Computational Methods in Molecular Biology [4] • Stat C143: Stat. Methods in Computational and Genomic Biology [4] • MCB 102: Biochemistry and Molecular Biology [4] • MCB 130A: Cell and Systems Biology [4] • ESPM 108B: Forest Genetics [3] • PMB H196/199: Research [3-4] 	<ul style="list-style-type: none"> • PMB C102L: Diversity of Plants and Fungi [4] • PMB C103: Bacterial Pathogenesis [3] • PMB 110/L: Biology of Fungi [4] • PMB C112: General Microbiology [4] • PMB C112L: Lab for General Microbiology [2] • PMB 113: California Mushrooms [3] • PMB C114: Comparative Virology [4] • PMB C116: Microbial Diversity [3] • PMB 120/L: Biology of Algae [4] • PMB 142: Plant Genomics and Bioinformatics [2]; <i>must be taken concurrently with C144L</i> • PMB C148: Microbial Genomics and Genetics [4] • PMB 165: Plant Microbe Interactions [3] • PMB 180: Environmental Plant Biology [2] • PMB 185: Techniques in Light Microscopy [3] • MCB 102: Biochemistry and Molecular Biology [4] • ESPM 131: Soil Microbial Ecology [4] • PMB H196/199: Research [3-4]