

Plant Biology Graduate Group
Advising Checklist - Molecular Biology, Biochemistry, and Genomics

Student: _____ Entry Date: _____

Major Professor: _____ Phone #: _____

Academic Adviser: _____ Guidance Committee Member: _____

Undergraduate Preparation:

- ___ Introductory Biology, 3-Qtrs/2-Sem
- ___ Inorganic Chemistry, 3-Qtrs/2-Sem
- ___ Organic Chemistry, 2-Qtrs/2-Sem
- ___ Introductory Physics, 2-Qtrs/2-Sem
- ___ Biochemistry, 2-Qtrs/1-Sem
- ___ Calculus, 2-Qtrs/1-Sem
- ___ Introductory Statistics, 1-Qtr/1-Sem
- ___ Genetics, 1-Qtr/1-Sem
- ___ Intro. Plant Physiology 1-Qtr/1-Sem
- ___ Cell & Mol. Biology, 1-Qtr/1-Sem
- ___ Ecol., Systematics & Evolution, 1-Qtr/1-Sem
- ___ Plant Development & Structure, 1-Qtr/1-Sem

UCD Equivalent:

- BIS 2A, 2B, and 2C
- Chemistry 2A, 2B, and 2C
- Chemistry 8A and 8B
- Physics 7A and 7B
- BIS 102 and BIS 103
- Mathematics (MAT) 16A and 16B
- Statistics (STA) 100 or PLS 120
- BIS 101
- PLB 111 or PLB 112
- PLB 113 or BIS 104
- EVE 100, 140 or 141 or PLB 108, or 117
- PLB 105 or PLB 116

Core and breadth requirements:

- ___ Plant Biology 200A, 200B, 200C – Core courses for PBGG taken during the first year
- ___ Plant Biology 292 – First year student journal club – taken every quarter offered during the first year
- ___ Plant Biology 290B – Friday afternoon listening seminar – taken every quarter during the first two years
- ___ Plant Biology 291 – Tuesday afternoon listening seminar – taken F/W/S of first year, W/S of second year
- ___ Plant Biology 290A -- Seminar discussion course – taken every quarter during the second year

Specialization requirements (at least 2 courses at the graduate level):

M.S. Plan I: Minimum of two courses (totaling at least 6 units) from list below:

M.S. Plan II: Minimum of three courses (at least 9 units) from list below:

Ph.D.: Either three courses from the list below OR two courses from the list below and one course from another area of specialization approved by the guidance committee (courses total at least 9 units)

BIS 181: Comparative Genomics (F, 3)	MCB 212: Cell Biology (W, 3)
BIT 160: Principles of Plant Biotechnology (W, 3)	MCB 213: Developmental Biology (W, 3)
ECS 124: Bioinformatics (S, 4)	MCB 214: Molecular Biology (S, 3)
ECS 129: Computational Structural Bioinformatics (F, O, 4)	MCB 241: Membrane Biology (S, 3)
ECS 221: Computational Methods in Systems and Synthetic Biology (Check w/department for when taught, 4).	MIC 215: Recombinant DNA (F, 3)
EVE 210: Molecular Phylogenetic Analysis (F, O, 3)	PBI 214: Plant Cell Walls (F, E, 3)
GGG 201A: Advanced Genetic Analysis (F, 5)	PBI 220: Plant Development (W, O, 4)
GGG 201B: Comparative and Functional Genomics (F, 5)	PBI 227: Plant Molecular Biology (W, E, 4)
GGG 201C: Molecular Genetics (S, 4)	PLB/MCB 126: Plant Biochemistry (W, 3)
GGG 210: Horizontal Gene Transfer (F, 3)	PLP 210: Biochemistry & Molecular Biology of Plant-Microbe Interaction (W, 4)
GGG/PLS 220: Genomics & Biotechnology of Plant Improvement (S, 3)	PLP/PLB 123: Plant-Virus-Vector Interaction (F, 3)
MCB 121: Molecular Biology of Eukaryotic Cells (F, W, S, 3)	PLS 173: Molec. & Cellular Aspects of Postharvest Biology (S, 3)
MCB 123: Behavior and Analysis of Enzymes and Receptor Systems (F, S, 3)	PLS 205: Design, Analysis, and Interpretation of Experiments (W, 5)
MCB 124: Macromolecular Structure & Function (F, W, 4)	PLS 206: Applied Multivariate Modeling (F, 4)
MCB 210: Molecular Genetics & Genomics (F, 3)	PLS 222: Advanced Plant Breeding (S, 4)
MCB 211: Macromolecular Structure & Interactions (F, 3)	

Key: Course in bold is offered every other year with E and O designating odd or even quarter when taught. F, W, S= Fall, winter and spring quarter when course offered. Number indicates unit value of course.