Areas of Emphasis, with sample Qualifying Exam topics and suggested classes

The PhD student's Guidance Committee, in consultation with the student, will select four topics for the QE. One of these topics must be a cropping system, and one of the three remaining topics must not be too closely related to the other two.

Master's students may use this list for suggestions of classes to take for their areas of specialization.

Plant Physiology

Abiotic Stress Physiology: ~~SSC 208;~~ PLS 157, 158
Crop Physiology & Development: PLB 111, PLS 100A, 100B, 100C, 217/298 (Gilbert); PBI 200A, 200B, 200C
Ecophysiology: PLS 100C, 157; PBI 210
Plant Metabolism: MCB 126, PLS 100A
Plant Nutrition: PLS 158; SSC 109, ~~208~~
Plant-Soil Interactions: HYD 124; ~~SSC 208~~
Plant-Water Relations: HYD 124; PBI 200C
Plant Pathology: PLP 120, 123, 205A,B, 206A,B, 210, 230

Crop Improvement

Biotechnology: BIT 160, 161A, 161B
Crop Evolution and Domestication: PLB 143
Crop Improvement and Breeding: PLS 112, 152, 154, 220, 222, 225/298 (Knapp); GGG 201A, 201D
Genomics: GGG 201B; PLS 220; BIS 180L, 181, 183; MCB 182; ECL 243
Plant Pathology: PLP 120, 123, 205A,B, 206A,B, 210, 230
Population & Quantitative Genetics: 225/298 (Knapp); GGG 201D; ECL 242
Experimental Design and Statistical Analysis: PLS 205, 206

Agroecology

Agroecology: PLS 130, 150; ECL 216
Climate Change: ATM 116; ECL 290s/298s
Ecosystems: ENH 160, 160L; ESP 155, 155L; PLS 130, 150, 162; ECL 216
Plant Pathology: PLP 120, 123, 205A,B, 206A,B, 210, 230
Restoration and Landscape Ecology: ENH 160, 160L; PLS 163; WFC 154, 155
Soil Science: SSC 109, 111, 120, 205, ~~208~~, 211, 219, 222
Weed Science/Weed Ecology: PLS 176, PLB 119
Wetland Ecology: ESP 155, 155L
Experimental Design and Statistical Analysis: PLS 205, 206

Postharvest Biology

Crop Physiology & Development: PLB 111, PLS 100A, 100B, 100C, 217/298 (Gilbert); PBI 200A, 200B, 200C
Biotechnology: BIT 160, 161A, 161B
Plant Pathology: PLP 120, 123, 205A,B, 206A,B, 210, 230
Postharvest: PLS 172, 173, 174, 196, 212
Experimental Design and Statistical Analysis: FST 117; PLS 205, 206

Crop Production

Soil Science: SSC 109, 111, 120, 205, ~~208~~, 211, 219, 222
Irrigation: HYD 110; ABT 165
Ecophysiology: PLS 100C, 157; PBI 210
Hydroponics and Containerized Plant Production: ENH 120, ENH 125
Weed Science/Weed Ecology: PLS 176, PLB 119
Plant Nutrition: PLS 158; SSC 109, ~~208~~
Plant-Soil Interactions: HYD 124; SSC ~~208~~
Plant-Water Relations: HYD 124; PBI 200C
Plant Pathology: PLP 120, 123, 205A,B, 206A,B, 210, 230
Modeling and Systems Analysis: HRT 251
Experimental Design and Statistical Analysis: PLS 205, 206

Other

Plant Anatomy and Morphology: PLB 105, 108, 116; PLS 102; PBI 200A
Cell and Molecular Biology: BIS 104; MCB 121; PLB 113

Cropping Systems (required topic for QE)

Agronomy: PLS 111
(e.g. Agronomy: Rice, Agronomy: Biofuels, Wheat, Cereals, Corn, etc.)
Floriculture: ENH 125
Greenhouse Crops (flowers, vegetables, etc.): ENH 125, 120
Pomology: PLS 113, 114, 170A, 170B
(e.g. Pomology: Almonds, Pomology: Fruit Trees, Peaches, Nut Trees, Walnuts, Strawberries, Figs, etc.)
Vegetable Crops: PLS 110
Viticulture: VEN 101A, 101B, 101C, 115, 118, 216, 217
Weeds: PLS 176; PLB 119
Other Woody Perennials: ENH 133

Suggested topic areas for Qualifying Exams – by topic

Abiotic Stress Physiology: SSC ~~208~~; PLS 157, 158
Agroecology: PLS 130, 150; ECL 216
Biotechnology: BIT 160, 161A, 161B
Cell and Molecular Biology: BIS 104; MCB 121; PLB 113
Climate Change: ATM 116; ECL 290s/298s
Crop Evolution and Domestication: PLB 143
Crop Physiology & Development: PLB 111, PLS 100A, 100B, 100C, 217/298 (Gilbert); PBI 200A, 200B, 200C
Crop Improvement and Breeding: PLS 112, 152, 154, 220, 222, 225/298 (Knapp); GGG 201A, 201D
Ecophysiology: PLS 100C, 157; PBI 210
Ecosystems: ENH 160, 160L; ESP 155, 155L; PLS 130, 150, 162; ECL 216
Experimental Design and Statistical Analysis: PLS 205, 206
Genomics: GGG 201B; PLS 220; BIS 180L, 181, 183; MCB 182; ECL 243
Hydroponics and Containerized Plant Production: ENH 120, ENH 125
Irrigation: HYD 110; ABT 165
Modeling and Systems Analysis: HRT 251
Plant Anatomy and Morphology: PLB 105, 108, 116; PLS 102; PBI 200A
Plant Metabolism: MCB/PLB 126, PLS 100A
Plant Nutrition: PLS 158; SSC 109, ~~208~~
Plant-Soil Interactions: HYD 124; ~~SSC 208~~
Plant-Water Relations: HYD 124; PBI 200C
Plant Pathology: PLP 120, 123, 205A,B, 206A,B, 210, 230
Population & Quantitative Genetics: 225/298 (Knapp); GGG 201D; ECL 242
Postharvest: PLS 172, 173, 174, 196, 212
Restoration and Landscape Ecology: ENH 160, 160L; PLS 163; WFC 154, 155
Soil Science: SSC 109, 111, 120, 205, ~~208~~, 211, 219, 222
Weed Science/Weed Ecology: PLS 176, PLB 119
Wetland Ecology: ESP 155, 155L

Cropping System (required topic for QE)

Agronomy: PLS 111
(e.g. Agronomy: Rice, Agronomy: Biofuels, Wheat, Cereals, Corn, etc.)
Floriculture: ENH 125
Greenhouse Crops (flowers, vegetables, etc.): ENH 125, 120
Pomology: PLS 113, 114, 170A, 170B
(e.g. Pomology: Almonds, Pomology: Fruit Trees, Peaches, Nut Trees, Walnuts, Strawberries, Figs, etc.)
Vegetable Crops: PLS 110
Viticulture: VEN 101A, 101B, 101C, 115, 118, 216, 217
Weeds: PLS 176; PLB 119
Other Woody Perennials: ENH 133