

## Appendix 1

### Qualifying Examination Areas of Examination Specialization Areas and suggested QE topic areas for examination

Below are listed the 4 specialization areas. Underneath each specialization category are suggested topical areas chosen by students whose course of study is *outside* that specialization area. Additional topics not listed are possible, subject to approval by the student's Graduate Adviser and by the Advisers at their annual QE assignment committee meeting.

#### 1. Cell and Developmental Biology Specialization Area:

- Cell Biology
- Developmental Biology
- Organelle Structure and Function
- Seed and Seedling Development
- Cell signaling in response to developmental or environmental cues

#### 2. Environmental and Integrative Plant Biology Specialization Area:

- Environmental Plant Biology,
- Stress Biology- Plant Responses to abiotic stress
- Integrative Plant Biology
- Transport processes at cellular and organismal levels
- Whole Plant Physiology, such as assimilate distribution and canopy level processes
- Plant Water Relations
- Plant Ecophysiology
- Plant Mineral Nutrition

#### 3. Molecular Biology, Biochemistry, and Genomics Specialization Area:

- Molecular Biology
- Biochemistry
- Genomics
- Genetics
- Plant genes, genomes and genomics
- Plant Biotechnology
- Agricultural Genomics

#### 4. Systematics and Evolutionary Biology Specialization Area:

- Systematics
- Evolutionary Biology
- Land Plant Evolution