

## B. PROPOSED HCS MS CURRICULUM 2022

| COURSE                                                          | TITLE                                                                   | CREDIT | TOTAL        |
|-----------------------------------------------------------------|-------------------------------------------------------------------------|--------|--------------|
| <b>TAKE ONE CLASS IN 2 OF THE 3 FOCUS AREAS:</b>                |                                                                         |        |              |
| <b>FOCUS 1 - PLANT BIOCHEMISTRY / PHYSIOLOGY / METABOLOMICS</b> |                                                                         |        |              |
| HCS 5621                                                        | Physiology of Cultivated Plants – 3 credits                             | 3      |              |
| HCS 5622                                                        | Plant Biochemistry – 3 credits                                          |        |              |
| HCS 7821                                                        | Environmental Physiology of Managed Plant Systems – 3 credits           |        |              |
| <b>FOCUS 2 - PLANT GENETICS / BIOTECHNOLOGY / BREEDING</b>      |                                                                         |        |              |
| HCS 5325*                                                       | Plant Genetics – 3 credits                                              | 2-3    |              |
| HCS 5625**                                                      | Applied Plant Biotechnology – 2 credits                                 |        |              |
| HCS 5825**                                                      | Plant Breeding – 2 credits                                              |        |              |
| HCS 8825                                                        | Advanced Plant Breeding – 3 credits                                     |        |              |
| <b>FOCUS 3 – PLANT SYSTEMS / PRODUCTION / ECOLOGY</b>           |                                                                         |        |              |
| HCS 5100                                                        | Advanced Cropping Systems – 3 credits                                   | 2-3    |              |
| HCS 5200                                                        | Advanced Horticultural Principles and Practices – 3 credits             |        |              |
| HCS 5306                                                        | Sustain. Veg. Prod. Pract.: Planning, Growing and Marketing – 3 credits |        |              |
| HCS 5411                                                        | Grain, Oilseed, and Fiber Crops – 3 credits                             |        |              |
| HCS 5412                                                        | Agroecology of Grasslands and Prairies – 3 credits                      |        |              |
| HCS 5420†                                                       | Environmental impacts of Crop-Livestock Systems – 3 credits             |        |              |
| HCS 5422                                                        | Principles of Weed Ecology and Management – 3 credits                   |        |              |
| HCS 5450                                                        | Vegetable Crop Production and Physiology – 3 credits                    |        |              |
| HCS 5460                                                        | Fruit Crop Physiology and Production – 3 credits                        |        |              |
| HCS 5602                                                        | Ecology of Agriculture – 3 credits                                      |        |              |
| HCS 5670                                                        | Golf Courses and the Environment – 2 credits                            |        |              |
|                                                                 |                                                                         |        |              |
| <b>EXPERIMENTAL DESIGN</b>                                      |                                                                         |        |              |
| HCS 5887                                                        | Introduction to Experimental Design – 3 credits                         | 3      |              |
| <b>PROFESSIONAL DEVELOPMENT</b>                                 |                                                                         |        |              |
| HCS 7001                                                        | Graduate Student Professional Development – 1 credit                    | 1      |              |
| <b>SEMINAR (enroll twice)</b>                                   |                                                                         |        |              |
| HCS 7890                                                        | Colloquium presentation – 1 credit                                      | 1      |              |
| HCS 7890                                                        | 2 <sup>nd</sup> enrollment (non-presenting) – 1 credit                  | 1      |              |
| <b>CURRENT TOPICS</b>                                           |                                                                         |        |              |
| HCS 8830                                                        | Current Topics                                                          | 1      |              |
| <b>ELECTIVES (minimum of 6 credits of HCS graduate courses)</b> |                                                                         |        |              |
| HCS/other                                                       | Graduate Courses – NOT counting courses fulfilling above requirements   | 6      |              |
|                                                                 |                                                                         |        |              |
|                                                                 | <b>Total Required Course Hours</b>                                      |        | <b>17-19</b> |
| <b>RESEARCH HOURS</b>                                           |                                                                         |        |              |
| HCS 7999†                                                       | MS Research (1-18) – multiple terms/hrs.                                | Var.   |              |
| <b>Coursework required by SAC</b>                               |                                                                         |        |              |
| HCS/other                                                       |                                                                         | Var.   |              |
|                                                                 |                                                                         |        |              |
| <b>TOTAL GRADUATE HOURS (REQUIRED):</b>                         |                                                                         |        | <b>30</b>    |

\*HCS5325 renumbered from HS4325, \*\* HCS5625 & 5825 adapted from HCS7625.

†new course