MASTER COURSE OUTLINE
Prepared By: Ethan Tonnemaker Date: April 2021

COURSE TITLE
Plant Science

GENERAL COURSE INFORMATION

Dept.: AGR	Course Num: 261	(Formerly:)
CIP Code: 01.0301	Intent Code: 21	Program Code: 105
Credits: 5		
Total Contact Hrs Per Qtr.: 66		
Lecture Hrs: 44	Lab Hrs: 22	Other Hrs:
Distribution Designation: NS		

COURSE DESCRIPTION (as it will appear in the catalog)
This course introduces principles of plant science as it relates to the production and management of crops. Topics will include plant classification, form and function, growth, processes, genetics, and reproduction. Course concepts will be applied through laboratory instruction.

PREREQUISITES
None

TEXTBOOK GUIDELINES
Plant Science textbook determined by Agriculture faculty (Example: Plant & Soil Science: Fundamentals & Applications, Parker)

COURSE LEARNING OUTCOMES
Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

1. Discuss the role of cultivated plants
2. Use plant classification and nomenclature
3. Define plant morphology
4. Apply plant morphology by identifying plant structures.
5. Define plant physiology
6. Describe major plant physiological processes.
7. Explain environmental influences on plant growth and development.
8. Describe how genetics are utilized in the cultivation of plants.
9. Describe how plant propagation is utilized in the cultivation of plants.
10. Relate plant form and function to agriculture management and crop production situations.

INSTITUTIONAL OUTCOMES

COURSE CONTENT OUTLINE

- Plant Classification
- History of crop production
- Plant Morphology

    - Seeds
    - Roots
    - Stems
    - Leaves
    - Flowers
    - Fruit
    - Seeds
- Plant Anatomy
    - Cell structure
- Plant Physiology
    - Photosynthesis
    - Respiration
    - Tropisms
    - Germination
    - Dormancy
    - Transpiration
- Soil
- Factors effecting plant growth
    - Light
    - Climate & temperature
    - Water
    - Weeds
    - Disease
    - Nutrients
- Reproduction and Genetics

DEPARTMENTAL GUIDELINES *(optional)*

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DIVISION CHAIR APPROVAL **DATE**