1. **COURSE TITLE\*:** Principles of Crop Science
2. **CATALOG – PREFIX/COURSE NUMBER/COURSE SECTION\*:** AGRI 1106
3. **PREREQUISITE(S)\*:** None **COREQUISITE(S)\*:** None
4. **COURSE TIME/LOCATION/MODALITY: (*Course Syllabus – Individual Instructor Specific*)**
5. **CREDIT HOURS\*:** 4 **LECTURE HOURS\*:** 3

**LABORATORY HOURS\*:** 1 (2 contact hours) **OBSERVATION HOURS\*:** 0

1. **FACULTY CONTACT INFORMATION: *(Course Syllabus – Individual Instructor Specific)***
2. **COURSE DESCRIPTION\*:**

Students will gain an understanding of the general principles involved in crop production, including soil, nutrients, plant breeding, planting techniques, tillage systems, pests, budgets, and environmental factors. Students will also learn the advantages and disadvantages of conventional, organic, and sustainable production systems.

1. **LEARNING OUTCOMES\*:**

At the completion of this course the student will be able to:

1. Develop an understanding of crop production and then demonstrate this knowledge through the use of financial concepts.
2. Compare and contrast the differences that exist among agricultural production systems and translate these differences into costs and returns for farmers, consumers, and the environment.
3. Compare and contrast conventional, sustainable, and organic agronomic production systems.
4. Compare and contrast tillage systems.
5. Describe the process involved in the evolution of seeds to plants and explain the impact of the environment on the physiology and structure of plants.
6. **ADOPTED TEXT(S)\*:**

*Principles of Field Crop Production*

4th edition

John H. Martin; Warren H. Leonard; David L. Stamp; Richard P. Walden

Prentice Hall

ISBN#: 0130259675

**9a: SUPPLEMENTAL TEXTS APPROVED BY FULL TIME DEPARTMENTAL FACULTY (INSTRUCTOR MUST NOTIFY THE BOOKSTORE BEFORE THE TEXTBOOK ORDERING DEADLINE DATE PRIOR TO ADOPTION) \*\*\*.**

1. **OTHER REQUIRED MATERIALS: (SEE APPENDIX C FOR TECHNOLOGY REQUEST FORM.)\*\***

Other resources may be required as the term progresses and will be announced or given in class

1. **GRADING SCALE\*\*\*:**

Grading will follow the policy in the catalog. The scale is as follows:

A: 90 – 100

B: 80 – 89

C: 70 – 79

D: 60 – 69

F: 0 – 59

1. **GRADING PROCEDURES OR ASSESSMENTS: (*Course Syllabus – Individual Instructor Specific)***

|  |  |  |
| --- | --- | --- |
| *Category* | ***EXAMPLE ONLY***  *Total Points* | *% of Grade* |
| Chapter Homework | 150 | 15% |
| Chapter Quizzes | 150 | 15% |
| Lab Manual | 100 | 10% |
| Research Project | 100 | 10% |
| Mid-term Exams | 300 | 30% |
| Final Exam | 150 | 15% |
| Attendance/Participation | 50 | 5% |
| Total | 1000 | 100% |

1. **COURSE METHODOLOGY: *(Course Syllabus – Individual Instructor Specific)***

This course may use lectures, discussion, video, computer slide show, in and out-of class assignments, work projects, research papers, and written exams as appropriate to the Learning Outcomes.

**14. COURSE OUTLINE: *(Course Syllabus – Individual Instructor Specific)***

***(Insert sample course outline with learning outcomes tied to assignments / topics.)***

**Introduction and Overview**

Importance of crop production to the United States; value, export, marketing

Factors affecting crop production; climate, soils, seed, pests, fertility, population

Setting yield goals; realistic expectations; productivity indices; maximum economic yield/maximum agronomic yield; diminishing returns

Management decisions: seed; fertilizer; soil pH; timing

Pesticides: insecticides, herbicides, fungicides

Tillage systems: conventional, conservation, no-till, zone, ridge; advantages/disadvantages

Economics of crop production: inputs, costs, returns, net income; budgets

Corn

Soybeans

Wheat

Rye

Oats

Sunflowers

Sorghum

**Suggested Course Outline**: **Learning Outcomes:**

Week 1 Introduction and Overview of Crop Production 1

Week 2 Factors affecting production 1, 2, 3

Week 3 Botany and basic plant physiology 1, 2, 3, 5

Week 4 Tillage 1, 2, 3, 4

Week 5 Fertilizers **Exam #1** 1, 2, 3, 4

Week 6 Seeds/seeding 1, 2, 3, 5

Week 7 Harvest 1, 2, 3,

Week 8 Corn 1, 2, 5

Week 9 Corn 1, 2, 5

Week 10 Soybeans **Exam #2** 1, 2, 5

Week 11 Soybeans 1, 2, 5

Week 12 Wheat 1, 2, 5

Week 13 Oats and rye 1, 2, 5

Week 14 Barley 1, 2, 5

Week 15 Sorghum, sunflowers, others 1, 2, 5

Week 16 Final Exam **Exam #3**

**15. SPECIFIC MANAGEMENT REQUIREMENTS\*\*\*:**

**Student Responsibilities: Students must Read the Textbook and understand the Chapter Learning Objectives. Attend class and be prepared to participate in that day’s discussion, complete the Project(s) by the due dates, and complete the Quizzes & Exams by the due dates. Students must also Display Sincere adult Behavior in the classroom.  Students must do their own work!  No Plagiarism!**

Students may withdraw from classes according to the schedule in the student handbook. Withdrawal from classes may affect the student’s financial aid. See the FEE SCHEDULE section of the College Catalog for the policy on refunds and financial aid.

**Instructor Responsibilities:** It is the responsibility of the instructor to enhance and expand the meaning and application of the subject matter covered in the course. The instructor will not normally review the assigned text. The instructor will provide grades in a timely manner and make arrangements to be available for assistance as needed.

**16. FERPA:\***

Students need to understand that their work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes. Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

**17.** **ACCOMMODATIONS:\***

Students requesting accommodations may contact Ryan Hall, Accessibility Coordinator at [rhall21@sscc.edu](mailto:rhall21@sscc.edu) or 937-393-3431 X 2604.

Students seeking a religious accommodation for absences permitted under Ohio’s Testing Your Faith Act must provide the instructor and the Academic Affairs office with written notice of the specific dates for which the student requires accommodation and must do so no later than fourteen (14) days after the first day of instruction or fourteen (14) days before the dates of absence, whichever comes first. For more information about Religious Accommodations, contact Ryan Hall, Accessibility Coordinator at [rhall21@sscc.edu](mailto:rhall21@sscc.edu) or 937-393-3431 X 2604.

**18. OTHER INFORMATION\*\*\*:**

**Classroom conduct:** Civility in the classroom is very important. As professionals, we expect students to conduct themselves in a courteous and respectful manner. Disruptive, rude, sarcastic, obscene or disrespectful speech or behavior have a negative impact on everyone and will not be tolerated.

**SYLLABUS TEMPLATE KEY**

**\*** Item cannot be altered from that which is included in the master syllabus approved by the Curriculum Committee.

**\*\*** Any alteration or addition must be approved by the Curriculum Committee

**\*\*\*** Item should begin with language as approved in the master syllabus but may be added to at the discretion of the faculty member.