INTRODUCTION TO HORTICULTURE

Credits: 3 or 4 Semester Hours

Course Description:
An introduction to the principles and practices involved in the development, production and use of horticultural crops (fruits, vegetables, greenhouse, turf, nursery, floral and landscape).

IAI description: AG 905. Introduction to Horticulture (3 or 4 semester hours). An introduction to the principles and practices in the development, production and use of horticultural crops (fruits, vegetables, greenhouse, turf, nursery, floral and landscape). Includes the classification, structure, growth and development, and environmental influences on horticultural plants: horticultural technology: and an introduction to the horticultural industries.

Upon course completion the student will be able to do the following:
1) Define and describe the significance of horticulture to society.
2) Demonstrate a working knowledge of the fundamental principles of plant growth and development.
3) Apply the fundamentals of plant growth and utilize practical applications in horticulture.
4) Define and demonstrate current technologies used in today’s horticultural enterprises.

Suggested Texts (Current Editions):
1) Biology of Horticulture. Preece, John E. and Read, Paul E.
2) Horticultural Science. Janick. Freeman & Company
7) Practical Horticulture Laura Rice & Robert Rice Pearson

Supplemental Materials List
1) ISBE Core Horticulture Curriculum
2) Greenhouse Virtual Tours DVD. Author Dr. Mike Evans, University of Arkansas.
Course Outline:

**Topics**

**I. Introduction**
- A. Scope and Importance: Local to Global
- B. Historical Perspective
- C. Careers and Opportunities

**II. The Biology of Horticulture**
- A. Classification of Horticulture Plants
- B. The Structure of Horticultural Plants
- C. Plant Growth and Development
- D. Environmental Factors Affecting Plant Growth and Development (Light, Temperature, Nutrient Supply, Moisture, Atmosphere)

**III. The technology of Horticulture**
- A. Controlling the Plant Environment
- B. Directing Plant Growth
- C. Biological Competition
- D. Mechanisms of Propagation
- E. Plant Improvement
- F. Harvesting and Marketing

**IV. The Industry of Horticulture**
- A. Horticultural Geography
- B. Horticultural Enterprises
- C. Aesthetics of Horticulture

**V. Additional/Optional Topics**
- A. Examinations

---

**Periods (without labs)**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>2-4</td>
</tr>
<tr>
<td>II. The Biology of Horticulture</td>
<td>8-10</td>
</tr>
<tr>
<td>III. The technology of Horticulture</td>
<td>16-20</td>
</tr>
<tr>
<td>IV. The Industry of Horticulture</td>
<td>8-10</td>
</tr>
<tr>
<td>V. Additional/Optional Topics</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Total**

37-48