

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: HRT 115

Credits: 3

Course Title: Plant Propagation

Course Description: Teaches principles and practices of plant propagation. Examines commercial and home practices. Provides experience in techniques using seed spores, cuttings, grafting, budding, layering, and division. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

General Course Purpose: Introduce and demonstrate plant propagation methods used in the home garden and commercial applications. This includes sexual and asexual methods commonly used in the horticulture industry.

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Demonstrate grafting;
- b. Demonstrate cuttings;
- c. Demonstrate layering;
- d. Demonstrate tissue culture;
- e. Demonstrate breeding techniques;
- f. Demonstrate seed preparations; and
- g. Demonstrate seed propagation.

Major Topics to Be Included:

- a. Plant anatomy and physiology related to propagation
- b. Plant genetics
- c. Propagation structures, environment
- d. Sexual propagation and seed handling
- e. Techniques of propagation by seed
- f. Aspects of asexual propagation
- g. Techniques of cuttings
- h. Techniques of grafting
- i. Aspects of micro propagation
- j. Propagation by specialized stems

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