STUDY GUIDE FOR THE FINAL EXAMINATION

The final exam will be made up of short-answer, matching, multiple choice, true-and-false, identification of plants, and various plant other demonstration materials used in the lab. About 70% of questions will cover new material taught after the midterm exam. A total of 65 points.

Lab 1 - Plant Classification

* Binomial plant classification system - genus and species.
* Know the difference between "variety" and "cultivar."
* Why is the botanical name (scientific name) so important?
* Difference between deciduous and evergreen plants for woody plants.
* Difference between annuals vs. biennials vs. perennials.
* Difference between "simple leaf" and "compound leaf."
* Know different leaf arrangements: opposite, alternate, subopposite, whorled.
* Identify the common and scientific names of 10 woody and five herbaceous plants covered in the lab. (matching).

Lab 2 - Sexual Propagation of Plants

* Definition of "sexual propagation."
* Advantage and disadvantages of sexual and asexual propagation.
* Three different uses of the sexual propagation method in horticulture.
* What is meant by seed viability and how is it tested?
* Four different environmental and biological conditions that affect seed viability.
* Define "seed dormancy."
* Favorable environmental conditions for optimum seed germination.

Lab 3 - Asexual Propagation of Plants

* Define "asexual propagation."
* Four reasons for using asexual propagation.
* What is meant by division and when is it used?
* What is meant by "micropropagation"?
* Advantages of using micropropagation over other means of asexual propagation.
* What is meant by "herbaceous" cuttings?

Lab 5 - Plant Nutrition

(No questions for this lab)
Lab 6 - Flower Garden Design

* Know the general guidelines for designing a flower garden.
* Where does Fargo belong in the USDA Plant Hardiness Zone map?

Lab 7 - Greenhouse Production

* Three different uses of greenhouses: hobby, research, commercial.
* What are the range of temperature recommended for greenhouses.
* List three different kinds of glazing materials commonly used for greenhouse cover.
* Best time to water plants grown in the greenhouse.
* Why is light important for growing greenhouse crops?
* Know the pH range optimum for growing greenhouse crops.
* What is meant by electrical conductivity (EC) of a soil extract?
* Why is high soil salinity detrimental for plant growth?

Lab 8 - Landscape Design

* What are the benefits of a well-planned landscape?
* Know difference between Landscape Architect and Landscape Designer.
* Know the following principles of landscape design: a) unity, b) repetition, c) balance, d) dominance, e) scale.
* Know what is meant by the following elements of landscape design: a) form, b) line, c) texture, d) color.
* Briefly describe the process of a landscape design: site analysis, design program, schematic diagram, plant development and project installation.

Lab 9 - Pruning and Training

* Five purposes of pruning trees.
* Why a narrow crotch of tree branches is not desirable?
* Know how to prune deciduous shrubs by rejuvenation and heading-back method.
* Show why a disciplined way of pruning is recommended for junipers?
* Know five different forms of ornamental trees that are available in the market:
  1) bare-root, 2) balled and burlapped, 3) potted trees, 4) container-grown, 5) directly transplanted.
* Why is chelated iron is often used for fertilizing trees?

Lab 10 - Plants for Interiors

* List five interior plants that are tolerant to low-light intensity.
* List three flowering plants that are used as interior plants.
* List three plants that are susceptible to fluoride that causes leaf tip or marginal burns.
* List three plants that require very high light situations for growth.
* List three plants that are tolerant to low soil moisture conditions.
* Know scientific names, common names, family names of 25 plants covered in the lab.
* Identification of plants on display.
Lab 11 - Lawn Care

* What is meant by cool-season, warm-season, and transitional zone turfgrasses.
* Name three different species of cool-season and warm-season grasses.
* General procedures for renovating existing lawns.
* Define "thatch" and suggest how a thatch problem can be managed.
* Suggest the best watering practices for existing lawns.
* Know proper procedures of fertility control for lawns.
* Advantages and disadvantages of sowing and sodding for starting a lawn.

Lab 12 - Fruits

* Explain the difference between aggregate fruit and multiple fruit with examples.
* Name two fruits which are categorized as hesperidiums.
* Name a leguminous nut.
* List two fruits that are pomes.
* What is meant by "berry" and "pepo"?
* Botanically, the edible portion of coconut is called?
* Difference between "dehiscent" and "indehiscent" fruits.