

NRM 212
GREENHOUSE MANAGEMENT
Spring – 2017

Schedule

Monday 2:15 PM - 5:00 PM, AHRB 1W05

Course Objective:

To guide students to an understanding of greenhouses and other controlled environment production systems with emphases on use, applications, management and operation.

Expected Student Outcome:

Students should 7s 202.0

Evaluation Policy:

Grades will be based on exams, one literature review, the greenhouse design project and class participation. The relative importance of each component for the final grade is indicated below:

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|---------------------------|-----------|
| Exam I | 200 (20%) |
| Exam II | 200 (20%) |
| Final Exam | 300 (30%) |
| Greenhouse Design Project | 200 (20%) |
| Literature Review | 50 (5%) |

For important UAF grading policy information, see the 2016-17 UAF Catalog, page 73

Disabilities Services: The Disability Services program, in 208 Whitaker, provides services to students with documented disabilities on the Fairbanks campus as well as the Bristol Bay, Chukchi, Interior Alaska, Kuskokwim, Northwest, and Community and Technical College campuses, Distance Education, and the College of Rural and Community Development. The goal of Disability Services is to ensure equal access to educational opportunities at UAF. Academic accommodations are free and available to any student who qualifies as an individual with a disability and is enrolled in at least 1 credit hour.

For more information contact the director of Disability Services at 907-474-5655 or 907-474-1827 (TTY), email uaf-disability-services@alaska.edu or at <http://www.uaf.edu/disability/>.

Literature Review:

One literature review based on a paper from a scientific journal covering a research study related to the construction, management or environmental conditions of a greenhouse or other controlled environment is required. In addition to the written review, a short presentation of the paper (less than 10 minutes) is expected. The literature review is due (at the latest) March 20 with the presentation March 27, 2017.

Format for Literature Review (see example on Blackboard)

Title of the article

Author(s)

Journal (name, year, page numbers)

Purpose of experiment

Procedures

Results and conclusions

Are the authors' conclusions valid? Who would benefit from this information? What additional work should be done? What would you have done differently? Any other comments.

Greenhouse Design Project:

Here you will have the opportunity to develop a design plan for a greenhouse that will be useful to you. The design and report should be comprehensive starting with the purpose and goals for your greenhouse. Other expected components besides the design and construction specifics such as size, location and type of greenhouse, include the purpose and use, management, business versus recreational, heating, cooling and irrigation approach, environmental controls, annual crop production plan, labor requirements, logistics and marketing methods (if applicable).

An outline for the design project is posted on Blackboard under the heading Greenhouse Design Guidelines. Many of the expected components are covered in the publication *Creating a Master Plan for Greenhouse Operations* by A.J. Both (<http://njaes.rutgers.edu/pubs/publication.asp?pid=E221>).

The Greenhouse Design Project is due on April 24 with a short presentation on May 1, 2017

NRM 212-Spring 2017, tentative schedule (pages Nelson, 2012. Greenhouse Operation and Management, 7th ed.)

| | | |
|-------------|---|---------------------|
| January 23 | Course introduction, Greenhouse definitions and industry characteristics | p. 1-33 |
| January 30 | Greenhouse designs and construction | p. 35-76 |
| February 6 | Greenhouse heating | p. 77-123 |
| February 13 | Greenhouse cooling and environmental control systems | p. 125-149, 151-159 |
| February 20 | Root substrates | p. 161-194, 195-209 |
