

PSS 8553 PLANT GROWTH AND DEVELOPMENT
COURSE SYLLABUS *Fall Semester, 2007*

Instructor: Dr. Richard L. Harkess
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Course Meeting Time and Place:

Monday, Wednesday, and Friday 8:00 - 8:50 AM, Dorman 321

Text: Srivastava, L.M. 2001. Plant Growth and Development Hormones and Environment. Academic Press, San Diego, Calif.

This syllabus, related course information, and announcements can be also be found on the internet at the following location: <http://www2.msstate.edu/~harkessr/pss8553.html>

Course Description and Objectives:

This course will focus on developmental processes of plant growth and the role of the phytohormones. A student completing this course should have an understanding of the developmental processes of plant growth and how environmental factors interact with the phytohormones to affect plant growth and development.

Grading:

Component & Point Value	Base grade scale
Midterm I - 100	92% = A
Midterm II - 100	82% = B
Final Exam - 150	70% = C
Fact Sheet - 50	60% = D
Research Paper - 100	65% = S
Total points = 500	All exams will be comprehensive!

Important Dates for PSS8553

M August 20 - Classes Begin
F August 31 - Decision on Review Paper Topic
M September 3 - No class (Labor Day Holiday)
F September 21 Midterm Exam I
M October 1 Fall Break (no class)
W October 10 FACT SHEET DUE
F October 26 Midterm Exam II
F November 16 RESEARCH PAPER DUE
W-F November 21-23 No classes (Thanksgiving Holiday)
F November 30 (No Class - Hort. Holiday Open House)
M December 3 Last Day of Classes
M December 10 **FINAL EXAM** (12:00-3:00 Monday, December 10, 2007)

Written Reports:

1. **Fact Sheet (due October 10):** Describe a specific procedure for regulation of plant growth and development. The fact sheet should include a brief introduction describing a crop production practice to be manipulated. Explain how the procedure will improve production. Then, in adequate detail, provide all necessary information for any person working in that phase of plant production to be able to apply the information described in the fact sheet.

Give detailed information on how to implement the procedure. Include information on preparation and application of the material making sure to include the application rates, safety precautions that should be indicated, possible environmental interactions, and anticipated results.

It is not necessary to do an extensive literature search for this fact sheet. You may be able to locate one or a select few papers that provide all the necessary information. It is expected that you will **use scientific literature** to back up the information used to write your paper. The information used to write the fact sheet should be from literature published within the last 10 years. You should not use existing fact sheets or spray bulletins as your information source when writing your fact sheet. The objective is for you to demonstrate that you can take information presented in a scientific journal (NOT A TRADE MAGAZINE) and translate it such that a lay-person can understand and apply the information.

The fact sheet should be short, no longer than 2 or 3 double spaced, typewritten pages. Although not normally done in professional fact sheets, list the specific articles used in writing the fact sheet at the end of the fact sheet. The list of articles used should not be counted as one of your pages. Remember, you are to write a fact sheet, not a summary of someone's research results.

2. **Research Paper (due November 16):** Each student will be expected to write a research review paper based on growth regulators or examining a specific growth and development topic.

The majority of the articles reviewed should be from within the last 10 years. It is expected that you will go beyond writing a simple summary for each of the papers you review. You should critically read the respective papers on your topic and offer an interpretation and explanation of the significant merits and limitations of the various research efforts which you are reviewing. The purpose of the review paper is for you to demonstrate that you can gather the significant scientific research papers on a given topic and to present and discuss the important points of the reviewed papers. The literature reviewed should be from scientific journals. Be sure to correctly cite all literature used in writing the review paper and properly cite all author(s) for each fact reported. The length of the term paper should be between seven (7) and twelve (12) pages maximum.

3. Both the fact sheet and research paper should be typed double spaced with 1 inch margins on all sides in a 12pt or equivalent font. You are expected to carefully proof your papers for grammar and spelling. A copy of the papers you turn in will be retained for my records.

The fact sheet is due on October 10 and the review paper on November 16 by 5:00PM. Those papers not turned in by the due date will lose 5% of their respective possible grade unless arrangements have been made with the instructor before the due date. Any paper not turned in within one week of the due date will lose 10% of the possible grade. Papers not turned in within two weeks of the due date will not be accepted for credit but must still be completed and turned in to the instructor in order to pass the course.

The decision on your review paper topic must be decided and the instructor notified no later than **Friday August 31st**.

Turn off all cell phones before coming to class.

Please refrain from using any and all tobacco products during class periods (including chewing tobacco, smoking, ...)

There will be zero tolerance for cheating, plagiarism, or other academic misconduct as defined in the Mississippi State University Academic Honesty policy

<http://www.msstate.edu/dept/audit/1207A.html>

“As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.”

– Mississippi State University Honor Code

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Fact Sheet grading sheet

Student Name: _____

All pertinent information for implementing the practice presented _____/15

Applicability and clarity of the information _____/10

References or information sources _____/5

Grammar, spelling, neatness, readability, organization _____/10

Demonstrated understanding of topic/assignment _____/10

Total points: _____/50

Comments:

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Review Paper grading sheet

Student Name: _____

Interpretation and explanation of the significant merits
and limitations of research reviewed (Justification for this research) _____/20

Synthesis of reviewed studies into one complete "story"
(Train of thought) _____/20

Discussion and interpretation of the literature
(Summary and conclusions of the research) _____/30

Literature cited, sources of information _____/15

Miscellaneous
 Grammar, spelling, neatness, readability, organization _____/5
 Demonstrated understanding of topic _____/10

Total points: _____/100

Comments: