Horticulture and Turfgrass Systems (3 credits)
PLSC 457
Spring, 2012 Syllabus

Instructor: Dr. Alan Zuk

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Office Hours: I have an open door policy. Feel free to drop by or you can make an appointment. I am often in the field during warm weather. If I am out, leave a message on my door or contact me by phone or e-mail. I'll respond as soon as possible.

Class Time: MWF 12:00-12:50 P.M.

Class Location: Loftsgard 102

Required Text: The subject matter presented in this course is too diverse to be contained in a single text. Therefore, no textbook is required. Relevant reading material will be assigned.

Recommended Text: None

Prerequisite: Students must have earned enough credit hours (90+) to be in senior standing.

Course Description: A problem solving approach to many facets of horticulture and turfgrass management that addresses important issues such as the environment, ecology, biotechnology, pesticides, employment, and business management. An emphasis will be placed on literature reviews, problem solving and communications. Three lectures weekly. Senior standing. S

This is the capstone class for the Horticulture and Sports and Urban Turfgrass Management programs.

Course Objective: To integrate basic soil fertility, soil physics, plant physiology, microbiology, entomology, and plant pathology to the horticulture and turfgrass management profession.

To identify management, economic and social issues in the regional and national horticulture and turfgrass management industry and their possible solutions.

To develop leadership, communication, critical thinking, and problem solving skills by active participation in discussions, case analysis and presentations on issues that impact the horticulture and turfgrass management industries. Although students will work in groups to complete assignments, they will be required to submit their own original work.

To instill a sense of professionalism in our future horticulture and turfgrass management graduates by placing an emphasis on public image and making ethical decisions.

Note: A strong emphasis will be placed on professionalism, attendance and participation. You must be present to earn points in this class. However, you may be excused from class if you are participating in a university sanctioned or approved event. If you have a valid excuse to miss class during a case study/problem solving or round table discussion exercise and notify me in advance, you will be given the opportunity to submit a 2-3 page written report relevant to the topic discussed during your absence. If you cannot provide an

acceptable excuse for your absence (as noted above) you will not be given the opportunity to make up the points missed.

Tentative schedule:

Month	Date	Day	Subject
Jan.	9	m	no class, semester beginning at 4:00 pm
	11	w	course outline
	13	f	scope of the horticulture/turf industry
	16	m	**holiday-no class**
	18	w	literature review and library exercise (Library 14B)
	20	f	employment - job search, writing a cover letter and resume
	23	m	employment - cover letter and resume
	25	w	employment - the interview
	27	f	employment - the interview
	30	m	**round table discussion 1-**interviewing
Feb.	1	w	business management - beginning a new career
	3	f	business management - location, inventory, marketing and advertisement
	6	m	business management - money mgt., personnel mgt. and customer relations
	8	w	**case study/problem solving exercise 1-**business management
	10	f	horticulture biotechnology
	13	m	turfgrass biotechnology
	15	w	**round table discussion 2-**turfgrass and horticulture biotechnology
	17	f	**case study/problem solving exercise 2-**turfgrass and hort. biotechnology
	20	m	**holiday-no class**
	22	w	soil physical properties
	24	f	salted soils
	27	m	**case study/problem solving exercise 3-**salted soils
	29	w	diseases of horticultural crops
Mar.	2	f	diseases of horticultural crops
	5	m	turfgrass diseases
	7	w	turfgrass diseases
	9	f	**round table discussion 3-**plant disease management
	12	m	**holiday-no class**
	14	w	**holiday-no class**
	16	f	**holiday-no class**
	19	m	insects of horticultural crops
	21	w	turfgrass insects
	23	f	**round table discussion 4-**insect management
	26	m	pesticide formulations
	28	w	pesticide label
	30	f	**holiday-no class**
Apr.	2	m	**holiday-no class**
	4	w	pesticide safety
	6	f	mathematics of pesticide application
	9	m	**case study/problem solving exercise 4-**pesticides
	11	w	abiotic and biotic crop stress
	13	f	**round table discussion 5-**crop stress management
	16	m	greenhouse sanitation
	18	w	**case study/problem solving exercise 5-**greenhouse sanitation
	20	f	**holiday-no class**
	23	m	**holiday-no class**
	25	w	cultural methods to prevent crop stress
	27	f	**round table discussion 6-**cultural methods to prevent crop stress
	30	m	equipment management
May	2	w	equipment management
	4	f	**case study/problem solving exercise 6-**equipment management
	9	w	**Final exam** – 10:30-12:30 A.M. Loftsgard 102

Evaluation standards

1. Discussions:
a. Attendance, 10 points
b. Preparation, 20 points
c. Participation, 20 points
d. If you are absent, you miss all 50 points. No make-ups allowed. Preparation and participation are explained in your evaluation form for each discussion topic.

2. Case study/problem solving exercises
a. Attendance, 10 points
b. Preparation, 10 points
c. Participation, 10 points
d. Report, 20
e. If you are absent, you miss all 50 points. No make-ups allowed. Preparation and participation are explained in your report guidelines.

4. Final Project: Write an essay on a horticulture or turfgrass management topic that you find interesting or relevant.

   a. Topic relevance: you may choose from a wide range of horticulture or turfgrass management topics. For example, greenhouse/nursery management, low budget grounds maintenance, irrigation system design, the construction of sand-based putting greens, managerial skills, or topics listed in the syllabus. I am open to other ideas but I want to approve them before you begin. This assignment is worth 200 points.

   b. Format: Use the following as the template to complete your project: the body of the paper shall be 7-10 pages, Times New Roman font (12 pt.), double spacing, and one inch margins on all four sides. Include a cover page with your name, e-mail, grade level, and major. Include a bibliography of written and internet references and personal communications. A minimum of five references should be cited in the text of your writing. Refer to "References and Selected Bibliography" in the *Crop Science Society of America* Style Manual at: www.crops.org/files/publications/style/references.pdf for proper book and journal article citation examples.

      Example:
      Ohlsson, C., and W.F. Wedin. 1989. Phenological staging schemes for predicting red clover quality. Crop Sci. 29:416–420.

      Cite web information similarly, but instead of the journal and page numbers, just provide the web address. **Warning: Do not cite sources from Wikipedia.** Each citation taken from this unreliable, open- access website will result in a 10 point deduction from your essay grade.

   c. Be original**.** This project is to be completed individually; do not use classmates for guidance or information. If you find information in an article or on the internet, read it and then report the information in your own words. Copying and pasting from the internet is plagiarism (even one sentence!); nevertheless, this is becoming an increasing problem on assignments such as this. Such practice will be treated as a violation of the NDSU honor system (policy stated below) which will result in failure of the course.
      Grading will be based upon thoroughness and accuracy of recommendations, and your ability to communicate in writing using a logical thought process, good grammar, and impeccable spelling.

   d. Submission date: April 30, 2012. Failure to submit the report on time will result in a 10-point deduction for each day past the due date.

5. The instructor reserves the right to give extra credit pop quizzes on days when attendance is low. You may make up a quiz if you provide a valid excuse in advance of your absence. Refer to the attendance policy under "Note" for details.

Course Grading:

Library exercise	50
Round table discussion 1-interviewing	50
Round table discussion 2-turfgrass and horticulture biotechnology	50
Round table discussion 3-plant disease management	50
Round table discussion 4-insect management	50
Round table discussion 5-crop stress management	50
Round table discussion 6-cultural methods to prevent crop stress	50
Case study/problem solving exercise 1-business management	50
Case study/problem solving exercise 2-turfgrass and horticulture biotechnology	50
Case study/problem solving exercise 3-salted soils	50
Case study/problem solving exercise 4- pesticides	50
Case study/problem solving exercise 5-greenhouse sanitation	50
Case study/problem solving exercise 6-equipment management	50
Final project	200
Final exam	150
Total points	**1000**

Course Grade/Pt. Scale (%)

A	90-100
B	80- <90
C	70- <80
D	60- <70
F	0- <60

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ADA Statement: The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic, learning and psychiatric disabilities in order to ensure their equal access to course content. If you have a documented disability and require accommodations, please let your instructor know as soon as possible. For more information, please contact Disability Services at 231-7671 or go to http://www.ndsu.edu/counseling/disability.shtml.

Academic Dishonesty/Plagiarism: All work in this course must be completed in a manner consistent with NDSU University Senate Policy, section 335: Code of Academic Responsibility and Conduct (http://www.ndsu.nodak.edu/policy/335.htm), and with the College of Agriculture, Food Systems, and Natural Resources Honor System (http://www.ag.ndsu.edu/academics/honor.htm). The Honor System operates to prevent and stop cheating, as well as penalizing those who cheat. Cases can be reported to any Honor Commission member, your instructors, or the Dean."

Information concerning the College of Agriculture, Food Systems, and Natural Resources' honor system is available at http://www.ag.ndsu.edu/academics/honor.htm#FIRST