

**BE 3371      LANDSCAPE AND TURF IRRIGATION**

**Contact, Resource and Course Information:**

Lead Instructor:

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All course information will be listed under: BE 3371 in Moodle  
(hopefully)

Textbook:

**Landscape Irrigation Design**

by Eugene W. Rochester

ASAE Publishers

2950 Niles Rd, St. Joseph, MI 49085-9659

Other sources of good information (if you plan to be involved in irrigation system management and troubleshooting) include:

**The Complete Irrigation Workbook**

by Larry Keesen

Franzak & Foster, division of G.I.E. Publishers,

4012 Bridge Ave., Cleveland, OH 44113

**Certified Irrigation Contractor Workbook**

By The Irrigation Assoc.

Reference book for the IA Certified Irrigation Contractor  
Exam. See: <http://www.irrigation.org/> go to Resources

**Turf Irrigation Manual**

By Richard Choate and Jim Watkins

Hardbound design manual for several irrigation  
certification exams. See: <http://www.irrigation.org/> go to  
resources

### Preliminary Expectations:

Homework:		25%
Project:		20%
Tests/exams:	Test 1	15%
	Test 2	15%
	<u>Final</u>	<u>25%</u>
	Total	100%

### Grading Scale:

A.	90-100
B.	80-89
C.	70-79
D.	60-69
F.	Below 60

### Homework:

All homework assignments are due at the beginning of the next class period, unless otherwise specified by the instructor. Late homework assignments will lose points for each day they are late. A grade of "0" will be assigned if homework is more than one week late, unless there are documented extenuating circumstances. It is your responsibility to make sure your homework is turned in on time. Homework assignments can be turned in ahead of time by sliding them under the office door of the instructor (155 E. B. Doran Bldg).

### Exams:

Exams are expected to be open notes and open book because of the resource information that is necessary to work irrigation system problems. This requires the student to be especially diligent in knowing information and understanding how it is being used. You will likely be provided sufficient time to finish the exam, "if you know the information and how to use it".

### Academic Honesty:

Academic misconduct will not be tolerated in this course. "Academic Misconduct" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give an unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructors, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act. Please refer to the Code of Student Conduct at the web site for the Office of the Dean of Students at LSU.

### Field Trips:

This class may have field trips (to a golf course, to see irrigation in operation, to see an installation). Class members are expected to participate in field trips. Information from such trips may show up on exams and potentially be available for extra credit.

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Week	Expectations for Lectures, Topic/Description
1	Class Introduction and Expectations. Hydrologic Cycle (Where does water come from/go?). Soil/Plant/Water Relationships
2	Soil/Plant/Water Relationships continued. Basic plant selection and turfgrass irrigation scheduling practices. Why irrigation is necessary and how much irrigation is necessary? Introduction to pressure and hydraulics
3	Basics of sprinkler operation/selection. Rotary Heads, Spray Heads, Impact Heads, introduction to application rate, and uniformity as they relate to sprinkler selection.
4	Piping systems. Friction loss. Elevations. Pipe sizing and system layout effect on cost (Pipe looping and selection). Water hammer.
5	Week 4 topics continued, First Exam
6	Surface, ground and alternative water (wastewater) supplies. Environmental impacts. Source water quality concerns. Water resource/supply evaluation. Water treatments for typical applications in the southeast. (May be an alternative class)
7	Basic Control Systems (Hands-On). Quick Coupling Valves, Solenoid Valves. Timeclocks (solid state, hybrid, electro-mechanical) Computerized Controls.
8	Assign design project, preliminary design considerations
9	Drip Irrigation Systems/Applications/Components.
10	Introduction to pumps and pump selection requirements, power units, Exam 2
11	Reading & understanding designs, pipe gluing, threaded connections, wire connections and code requirements.
12	Field Trip?
13	System installation and trouble shooting irrigation problems. Landscape irrigation audit results. Landscape water conservation/techniques. Maintenance/operational requirements. How to determine when problems exist. What is user servicable and what might need a more experienced person to repair. Turn in design projects