

HRT 411 - Landscape Contract Management

Fall Semester 2011

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CLASS SCHEDULE

| | | | |
|---------|----|------------|-----------|
| Lecture | MW | 12:40-1:30 | A186 PSSB |
| Lab | W | 3:00-4:50 | A119 PSSB |

COURSE DESCRIPTION

Management of landscape construction operations. Working drawings, contracts, bonds, and insurance. Estimating and bidding procedures. Construction techniques for installation of hardscapes and plant material.

READING ASSIGNMENTS AND CLASS NOTES

Textbooks:

- 1) *Landscape Construction* by David Sauter. 2011. 3rd edition. Delmar, Clifton Park, N.Y. (SUGGESTED)
- 2) *How To Price Landscape and Irrigation Projects* by James Huston. 2003. Smith-Huston, Inc., Englewood, Colorado. Smith-Huston, Inc., Englewood, Colorado. (OPTIONAL)

Reserved reading (Huston) will be placed in the PSSB Reading Room (A261 PSSB).

Lecture outlines and assignments on the web at: <http://angel.msu.edu> under Lessons.

COURSE OBJECTIVES

1. Become familiar with landscape construction materials and techniques.
2. Develop an understanding of project estimating and bidding procedures.
3. Develop an understanding of the legal aspects of contracts, construction bonds, insurance, and ways of structuring a business.

GRADING SYSTEM

| | | | |
|---------------------------------|-----|--------|-----|
| Midterm exams | 40% | 90-100 | 4.0 |
| Lecture quizzes | 15% | 85-89 | 3.5 |
| Lab exercises and participation | 10% | 80-84 | 3.0 |
| Group bidding project | 10% | 75-79 | 2.5 |
| Individual bidding project | 3% | 70-74 | 2.0 |
| Final exam | 22% | 65-69 | 1.5 |
| | | 60-64 | 1.0 |

Quizzes: There will be several unannounced short quizzes given over the course of the semester. There will be no makeups, but you will be able to drop your two lowest scores.

LECTURE TOPIC OUTLINE (HRT 411)

| <u>Week of</u> | | <u>Reading (chapter in Sauter)</u> |
|----------------|---|------------------------------------|
| Aug 31 | Protecting Plant Material During Construction (Monday schedule) | 9-10 |
| Sept 5 | Labor Day Site Preparation and Layout, Surveying | 7-8 |
| Sept 12 | Landscape Paving | 22-27 |
| Sept 19 | Landscape Paving | |
| Sept 26 | Retaining Walls | 16-21, 33 |
| Oct 3 | Water Features – Fountains and Ponds EXAM ONE (Wednesday, October 5) | 34 |
| Oct 10 | Water Features – Fountains and Ponds | |
| Oct 17 | Estimating Landscape Construction Costs | 5 |
| Oct 24 | Estimating Landscape Construction Costs | |
| Oct 31 | Estimating Landscape Construction Costs | |
| Nov 7 | Construction Administration - Project Documents, Contracts Construction Administration – Bonds and Insurance | 2 |
| Nov 14 | Construction Administration - Bid Proposals and Procedures EXAM TWO (Wednesday, November 16) | |
| Nov 21 | Business Structure, Starting a Business GROUP BIDDING PROJECT (Due Monday, November 21) Discussion of Bidding Projects Thanksgiving | |
| Nov 28 | No lecture Wood Construction (Camtasia) | 28-31 |
| Dec 5 | Stormwater Runoff, Drainage, and Erosion Control INDIVIDUAL BIDDING PROJECT (Due Monday, December 5) Future Trends and Opportunities in the Landscape Industry | 11-13 |
| | FINAL EXAM (10:00 am – 12:00 noon, Wednesday, December 14) | |

LABORATORY SCHEDULE

May include sessions in the Clarence E. Lewis Landscape Arboretum, at the Horticulture Teaching and Research Center, or at other locations. Schedule dependent upon weather.

| | |
|---------|--|
| Sept 7 | Interpretation of Working Drawings (Monday schedule) |
| Sept 14 | Surveying |
| Sept 21 | Surveying Quiz |
| Sept 28 | Campus Walk |
| Oct 5 | Construction Projects |
| Oct 12 | Construction Projects |
| Oct 19 | Estimating Landscape Construction of Patios (Pavers and Flagstone) |
| Oct 26 | Estimation of Planting Plans |
| Nov 2 | Group Construction Bidding Projects |
| Nov 9 | Group Construction Bidding Projects |
| Nov 16 | Group Construction Bidding Projects Group Bidding Projects Due Monday, November 21 |
| Nov 23 | Individual Construction Bidding Projects (Due Monday, December 5) |
| Nov 30 | No lab |
| Dec 7 | Management Practices – Dwight Hughes Nursery and Landscaping |

ADDITIONAL READING ASSIGNMENTS

FROM HUSTON: (Huston, James. 2003. *How To Price Landscape and Irrigation Projects*)
 (Huston, James. 1994. *Estimating for Landscape & Irrigation Contractors*)

(Copy of 1994 edition is in notebook on reserve in the Reading Room, A261 PSSB)

| | <u>Chapter in Huston</u> | |
|--------------------------------------|--------------------------|--------------------|
| | <u>Huston 2003</u> | <u>Huston 1994</u> |
| Introduction | Intro | Intro |
| Estimating System Overview | 2 | 2 |
| Direct Costs | 4 | 4 |
| Field-Labor Payroll and Hour Budgets | 5 | 5 |
| Crew Average Wage | 6 | 6 |
| Labor Burden | 7 | 7 |
| Overhead | 8 | 8 |
| Equipment Costs | 9 | 9 |
| Estimating Production Costs | 11 | 11 |
| General Conditions | 12 | 12 |
| Margins and Markups | 36 | --- |
| Markups | --- | 13 |
| Job Costing | 41 | 20 |
| Field and Overhead Equipment | 45 | --- |
| Equipment | --- | 24 |