ABE 4231C: Irrigation and Drainage Engineering

COURSE PRELIMINARIES

ABE 4231C: Irrigation and Drainage Engineering

Lectures:
- Monday, Wednesday and Friday; Periods 2-3, Room 211

Discussion:
- Tuesday; Period 8, Room 211

Laboratory:
- Tuesday; Periods 9-10, Room 211

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107 Rogers Hall
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• T R, 9:30 am – 12:00 pm
• Or by appointment
E-mail: rscholtz@ufl.edu

Course Internet Site
www.abe.ufl.edu/~rscholtz/Course-06.html
• Syllabus
• Course Schedule
• Presentation Notes and Handouts
  Assignments, Labs, Answers

Password for Files: 423ide
Course Objectives

- Understand the hydrologic cycle, principles and processes necessary to effectively manage water resources through well designed drainage and irrigation systems.
- Apply appropriate techniques and analyses to the effective design of both irrigation and drainage systems.
- Design, test, and analyze agricultural irrigation and drainage systems and their components.
- Enhance communication skills, and impart a sense of professional, ethical and societal responsibility gained through knowledge and discussion of contemporary issues.

Objectives

- Act like an engineer.
- Feel like an engineer.
- Think like an engineer.
- Be an engineer.
- Take the tools learned (and learning) and apply them to water resources management, especially irrigation and drainage system design.

General Information

- Lectures will cover materials in the text as well as other references.
  - Pay attention and maintain your notes as needed.
- Use the “3-Times Rule.”
  - 4 credits ⇔ 10 hours per week outside.
- Students are responsible for all announced course changes.
- Read + Work + Pay Attention + Effort = Success
**Grading Policy**

- 60% - Examinations (3 equally weighted)
  - NCEES PE Exam Procedures plus Course Notebook
- 16% - Assignments (potentially weekly)
- 10% - Lab Reports (4 lab/field assignments)
  - Full Lab Report
- 10% - Design Tool Deliverables (4-6 projects)
  - Spreadsheet Tools for Design Analysis
- 10% - Executive Summaries (4-8 guest speakers/field trips)
- 5% - Digital Portfolios and Student Self Assessments (2-4 Checks)
  - All Course Materials Stored on Thumb Drive
- 5% - Presentations (4-8 field trip, guest speaker, demonstrations)
  - 20 min Technical Review

**Grading Scale**

- A: 91-100%
- A-: 89-90%
- B+: 87-88%
- B: 81-86%
- B-: 79-80%
- C+: 77-78%
- C: 71-76%
- C-: 69-70%
- D+: 67-68%
- D: 61-66%
- D-: 59-61%
- E: < 59%

**Make-up Policy**

- Arrangements to make-up any and all deliverables and exams must be done prior to the due date, unless an unforeseeable event has occurred. Those instances will be reviewed on a case by case basis.
## Self Assessments

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<thead>
<tr>
<th>Topic</th>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
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</thead>
<tbody>
<tr>
<td>Pump Impeller Design</td>
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<td>X</td>
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<td>Computational Fluid Dynamics as applied to Pump Design</td>
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