**CE 260 Field Measurements Syllabus**

**Credits: 2 Hours**

**Tuesday/Thursday: 8:00-8:50 am**

**CE 260 – BAB131**

**Instructor: Robert Kluger**

**Course Description:** The lecture will teach students theories and applications behind concepts in surveying. This will include the fundamental surveying aspects and calculations required in many engineering projects.

**Prerequisites:** ENGR 110 or ENGR 149

**Co-Requisites:** CEE 261

**Learning objectives:**

1. Define coordinate systems, compute angles and directions
2. Classify errors related to precision and accuracy
3. Recognize surveying tools/equipment and their purpose
4. Compute elevations from leveling operations
5. Compute areas of closed loop traverses
6. Learn about emerging technology including drones, GPS and geographic information systems
7. Compute earthwork volumes

**ABET Outcomes:**

*CE260:*

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(3) an ability to communicate effectively with a range of audiences

**Textbook (Required):** *Surveying: Principals and Applications – 9th Ed. Kavanagh and Mastin. Pearson Education Inc. 2014*

**Instructor Information:**

Robert Kluger, Ph.D., PE

WS Speed Room 112

Office Hours: by appointment via e-mail

E-mail: robert.kluger@louisville.edu

**CE260 Teaching Assistant**

Mohamadreza Haghani

WS Speed Room LL06

Office Hours: TBD First Day of Class

mohamadreza.haghani@louisville.edu

\*\*Office Hours will be held virtually

**Lectures:** Lectures will be held in person. For the best experience, students are highly encouraged to attend.

**Blackboard:** CE 260 will use Blackboard learning environment for course communications. The primary site for communications will be CE 260. Any key announcements will be posted to Blackboard. Students are expected to check Blackboard daily for announcements regarding the course. Assignments and exams will also be submitted through Blackboard.

**Office Hours:** Office hours are available for students who need additional help with concepts. The TA has weekly office hours in WS Speed 119. Dr. Kluger is available via appointment. All office hours will be held virtually.

**Exams:** Three midterms and one final will be administered throughout the semester. The exams will be announced at least 2 weeks ahead of time. Any material and concepts covered in lecture, lab, or homework assignments may be included in the exam. Exams are cumulative. Students will be allowed to use any materials including notes, homework, and their laptops, but *must complete the exam alone.* Your lowest exam grade will be dropped. \*Students caught cheating on Exams will receive a 0 and that grade cannot be dropped\*.

**Other Assignments:**

**Homework** will be administered at the instructor’s discretion. Homework assignments are simply meant to serve as preparation for exams. Assignments will be graded on a completion basis. All solutions will be posted after the due date of the assignment. No late submissions will be accepted. It is each student’s responsibility to review the solutions and ask questions at office hours if they do not understand.

**Grading:**

 **CE 260**

 Exams: 70%

 Worksheets: 10%

 Homework: 20%

 Total: 100%

The lowest exam grade in CE 260 will be dropped (unless it is a 0 received from cheating).

**Academic Dishonesty:** Students are held to the highest standard in regard to academic dishonesty. Any student caught cheating or in any other violation of the [Student Code of Conduct](http://louisville.edu/dos/students/studentrightsandresponsibilities) will be subject to consequences. At a minimum, the student will receive a 0 on the assignment that is not eligible to be dropped.

**Title IX/Clery Act Notification:**

Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain confidential support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111).

Disclosure to University faculty or instructors of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is not confidential under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University’s Title IX officer.

For more information, see the [Sexual Misconduct Resource Guide](http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure).

**COVID 19:**

As a Community of Care, all Cardinals are expected to abide by public health guidelines and regulations as published by the University. For Fall 2021, this includes:

1. wearing of cloth/paper masks (covering nose and mouth) when in shared indoor spaces like classrooms. (Per the July 2020 code of student conduct, a student who refuses to follow these guidelines may be asked to leave a classroom).
2. staying home when sick—any UofL community member experiencing fever, consistent dry cough, or other symptoms of contagious disease should remain at home until symptoms subside or advised that it is safe to return by a medical professional.
3. practicing good hygiene and responsibility for one’s own surrounding.
	1. Cover sneezes and coughs
	2. Wash hands frequently with soap and water when possible, use hand sanitizer when soap and water are not available
	3. Wipe down frequently touched surfaces
	4. Maintain 6 feet physical distancing when possible

Faculty have the responsibility to help students meet these recommendations by:

1. SSoE instructors will allow students absent for reason of illness and/or quarantine to make up missed work and not penalize students for these absences
2. Notifying physical plant when classrooms are not adequately stocked with cleaning supplies and arranging classroom furniture or seating charts to maximize physical distancing where possible.

Your instructors are committed to your safety and health as well as your academic success. If we all work together, we can have a safe and rewarding semester. Know that your instructors are aware of the many challenges you will face this semester, make sure you afford them the same courtesy.

**Computer Issues and IT Support:** Speed IT staff are available by appointment from 9 am to 4 pm to assist you with your technology needs. You may schedule an appointment by sending a detailed email including any relevant error codes and screen snips at SPDHelp@Louisville.edu (preferred) or 502-852-7620.