SYLLABUS

CIVE 2220-F CIVIL ENGINEERING MEASUREMENTS

Department of Civil Engineering

TERM: FALL SEMESTER 2019

Instructor: Abdoul Oubeidillah (Lab Section F) / Jorge Vidal (Lecture)
Office location: EACSB 1.202E / 1.208 Edinburg’s Academic Services Building (use Civil Engineering entrance on East side). Office Hours: Tuesdays from 1:30 to 4:30 PM (advance email appointments are strongly recommended). Email: abdoul.oubeidillah@utrgv.edu / jorge.vidal1@utrgv.edu (note the #1) Tel: (956) 665-3055 (I prefer you email me when possible).
IMPORTANT: Email me using your UTRGV email account only (emails from other accounts are not allowed per UTRGV policy). I will try to respond within a day on weekdays and two days on weekends (if you don’t receive a reply within these timeframes, assume I didn’t receive your email, double-check my address and resend it. If you are still unsuccessful, try calling me or stopping by my office during my office hours).

MEETING TIMES AND LOCATIONS

Section 01: Mondays from 11 AM to 12:15 PM, Edinburg, EIEAB 2.207 (Interdiscip. Engr. & Acad Bldg).
Section 02: Tuesdays from 11 AM to 12:15 PM, Edinburg, EIEAB 2.209 (Interdiscip. Engr. & Acad Bldg).
Lab Sections usually meet in EACSB 1.209 (Academic Services building -use the Civil Engineering entrance on the East side of the building, under the skybridge to EENGR) See Assist for dates and times.
IMPORTANT: Students who are late are required to see the instructor after class to get a late attendance (-0.5 participation point), otherwise they will get a full absence. Students who are more than 10 minutes late may not be allowed in class and will get a full absence (-1.0 participation Pt), so please arrive on time!

COURSE DESCRIPTION

This is an interesting, engaging and challenging, team-based, experiential-learning course which will give you the opportunity to understand how measurements are essential to civil engineering. You will learn the basic principles of land surveying and will develop engineering reports and CAD drawings.

The course includes both lectures and hands-on lab sessions conducted mostly outdoors in different areas around campus. You will develop professional-quality surveying reports working as part of an engineering/surveying-team.

Selected Lab sessions will give you additional time to advance your AutoCAD knowledge by following self-paced video-tutorials with practice exercises and knowledge tests, which will allow you to obtain a certificate which will prove invaluable when applying for internships and/or entry level jobs in civil engineering, land surveying, architecture and construction (AKA AEC industry).

IMPORTANT PREREQUISITES

Knowledge of geometry & trigonometry
Good working knowledge of MS Office software and other common online tools is also needed.

This syllabus subject to change to better meet course objectives per discretion of instructor.
And (very importantly), a willingness to work well with others as part of an effective, collaborative “surveying party” team, as well as being attentive and engaged in class and carefully follow safety and equipment-care protocols when performing land-surveying work.

Important note for students retaking the course due to having failed it before: If you failed this course before, you are required to let the instructor know about it no later than the first week of classes, since you may need to submit a special assignment in order to be eligible to retake the course. If the student fails the assignment, the instructor may drop him/her from the course in order to allow a more committed student to take the seat. Failure to disclose you are retaking the course may result in a late drop and/or a failing final grade in the course.

TEXTBOOKS AND OTHER RESOURCES

REQUIRED RESOURCES

Surveying Fundamentals & Practices (6th or 7th Ed.), Jerry Nathanson et al, Pearson (2010 or 17). Purchase the paperback book, even if used, but do not rent it, since it will help you study for the Fundamentals of Engineering (FE) exam, which you should take in your senior year (you need to pass the FE exam to become an EIT (Engineer-In-Training) which is necessary for the PE license.

SolidProfessor (1-Year student subscription) Details on how to purchase and start using this online video-learning mini-course will be provided both in class and on Blackboard. Note: If you purchased the SolidProfessor subscription for my “Intro to Civil Engineering” course, you should be able to continue to use it for this course too at no additional cost (within 1-year of purchase).

IMPORTANT: Both of the above resources are available thru the UTRGV bookstore (Follett) – this is particularly important if your scholarship requires you to get course materials thru UTRGV.

COURSE OUTCOMES

- Demonstrate fundamental understanding of mathematics, trigonometry and geometry in solving land-surveying problems.
- Develop written (Lab Reports) and graphic (AutoCAD) communication skills.
- Demonstrate analytical skills in completing assignments.
- Demonstrate an ability to analyze and interpret field survey data.
- Develop alternative solutions to problems within the context of surveying practice.
- Demonstrate cooperative work and/or leadership in conducting, coordinating and completing team assignments.
- Effectively work as part of a small “engineering team” to develop, present and explain a professional-quality, civil-engineering-related research project.

This syllabus subject to change to better meet course objectives per discretion of instructor.
**LEARNING OUTCOMES ADVANCED BY THIS COURSE ABET/SACS ALIGNED STUDENT OUTCOMES**

<table>
<thead>
<tr>
<th>ABET 3 / SACS 3</th>
<th>An ability to communicate effectively with a range of audiences.</th>
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*ABET 5 / SACS 3: An ability to function effectively on a team, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. *

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<tr>
<th>ABET 6 / SACS 1 &amp; 2</th>
<th>An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.</th>
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| ABET 7 / SACS 1 | An ability to acquire and apply new knowledge as needed, using appropriate learning strategies. |

**MAJOR ASSIGNMENTS AND ASSESSMENTS**

**LAND-SURVEYING FIELD WORK & ENGINEERING LAB REPORTS**

You will learn about civil engineering measurements and field-data-collection by working as part of an engineering team (surveying party) in performing real field-survey work during specific lab sessions. Then, and as part of a small team, you will communicate the results in writing by developing professional-quality engineering reports, through which you will do research, document field work, reduce data and calculate results. These reports, when properly executed, will greatly enhance your Work Portfolio, giving you an edge in getting good entry-level jobs.

**INTRO TO AUTOCAD ONLINE MINI-COURSE**

The knowledge of Computer-Aided Drafting (CAD), and particularly AutoCAD, is essential for the proper and accurate representation of civil engineering measurements, and to effectively communicate civil engineering projects. It is also a critical skill which is often required to qualify for most internships and entry-level jobs in AEC (Architecture, Engineering and Construction), and therefore we have incorporated into this class an online AutoCAD mini-course requirement which will be part of your grade, and if properly completed by the deadlines shown in the calendar, will allow you to exempt the final exam with a weighted course grade of 8/10 or above.

**HANDWRITTEN NOTES ARE REQUIRED**

It is a requirement for all students to keep neat and clearly handwritten notes in a well-organized notebook (the instructor may request the notes for review and/or grading purposes at any time and without prior notice, so make sure to always bring them to class with you!). Research confirms handwritten notes help retain knowledge, as opposed to typed notes.

**FINAL EXAM (MAY BE EXEMPTED, SEE NOTE BELOW)**

The final exam may consist of any of the materials covered in the course, including those in the required textbook and online resources, as well as lectures.

You may exempt the Final Exam by having a weighted course grade of 9 or above or (or of 8 or above if you adequately complete the AutoCAD mini course by the deadlines shown in the Calendar). The instructor will notify exempt students via email ASAP before the final exam.

*This syllabus subject to change to better meet course objectives per discretion of instructor.*
TECHNICAL REQUIREMENTS

Computer Hardware
In order to be able to properly participate in this course, you will need easy access to a computer less than 5-years old with access to high-speed internet (otherwise you can use the computers available to students in designated UTRGV computer Labs). If you need assistance, please refer to Blackboard Learn Student Support, contact the Center for Online Teaching Technology (COLTT student-support), located in EEDUC 2.202 or via phone at (956) 665-5327, or visit the IT Service desk either in person at the Academic Services Building (EACSB 1.102), by phone at (956) 665-2020 or online by submitting an IT Help Request through ServiceNow: Log in to my.utrgv.edu, then click on the ServiceNow icon under Applications, then click on “Something broken?”.

Student Computer Skills
You are expected to be proficient with installing and using basic computer applications, particularly Windows-based software (preferred in civil engineering) and Microsoft Office programs like MS Word and PowerPoint, you must have the ability to send and receive email with attachments and be capable of effectively using the Internet, including the “myUTRGV” student website, the Blackboard Learn course site, Office 365 and other similar websites and/or applications that may be required, including, but not necessary limited to recent versions of: Windows Explorer, Google Chrome, Adobe’s Flash Player & Reader plug-ins, Etc.

BLACKBOARD LEARN SUPPORT CONTACT INFORMATION

If you need Blackboard Learn (BbL) support at any time during the course or to report a problem with Blackboard Learn you can visit the Blackboard Learn Student Help Site.

UTRGV’s Blackboard Learn (BbL) Support:

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<tr>
<th>Brownsville Campus</th>
<th>Edinburg Campus</th>
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<tbody>
<tr>
<td>Location: Rusteberg Hall</td>
<td>Location: Education Complex</td>
</tr>
<tr>
<td>Room 108</td>
<td>Room 2.202</td>
</tr>
<tr>
<td>Phone: 956-882-6792</td>
<td>Phone: 956-665-5327</td>
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COURSE OVERVIEW

Course Structure
The instructional methods of this course will include, but may not be limited to:

- Face-to-face instruction through lectures and presentations by the instructor, guest-speakers and student teams presenting their research projects.
- Laboratory time to practice using surveying tools and instruments as part of a small “Surveying Party” as well as specific lab sessions where you will be given the opportunity to advance your own individual work on the online SolidProfessor mini courses in Spatial Visualization and Engineering Graphics with the goal of obtaining Technical Certification.

This syllabus subject to change to better meet course objectives per discretion of instructor.
• Self-guided online (flipped classroom) instruction, exercises assignments and tests available through the Blackboard Learn course website and/or other required and/or recommended online resources, including, but not limited to Office 365, OneDrive, AutoCAD tutorials (like SolidProfessor), etc. It is a requirement that you check the course’s Blackboard site daily, making sure to read all new announcements and review all posted materials, since your visits are logged in and may be taken into account as part of your participation grade.

• Individual and group (team) assignments and quizzes (usually available on Blackboard or through self-guided online tutorials (like SolidProfessor, etc.).

• At times, other voluntary extra-credit learning opportunities like site visits, webinars, etc. may be made available to students to broaden the educational benefits of this course and to expose them to the “real world” of civil engineering and land surveying.

• Students should frequently refer to the course calendar. The calendar is available online through the Blackboard Learn Course website, and has detailed information about the course schedule, subject matter covered, assignments and due dates, exams, etc. The course calendar is the student’s “roadmap” and should be used to properly plan ahead and allow enough time for textbook readings, online video-tutorials, homework, exercises and other required assignments and/or tests which should insure the timely and correct completion of all necessary work for successful learning and course completion.

GRADING CRITERIA

GRADING RUBRIC (this is how the different components of the course are weighted for grading):

• Participation, attendance and extra-credit*: At least 30% of final grade - Please note: each absence equals a full negative point, and late arrival equals half a negative point.

• Individual grade on Lab Reports: Up to 50% of final grade.

• Individual work (AutoCAD online course): At least 20% of final grade.

• Final Exam: Exam grade will be averaged 50/50 with the “Lab reports” component above. You may exempt the Final Exam (see “Final Exam” above for details).

*Extra credit (XC) may be awarded at instructor’s discretion for requested extra-work and effort, class participation and assisting instructor when required (Note that 10 XC points equal 1 full grade point in the participation grade-component).

Many extra-credit opportunities are offered throughout the semester, like answering instructor’s questions, correctly responding to “research-challenges” and participating in recommended student and UTRGV activities and events like field-visits, student membership in the American Society of Civil Engineering (ASCE) student chapter and various other CE-related activities. VERY IMPORTANT: In order to earn XC credit you are required to confirm all your XC’s by emailing the instructor before 11:59PM on the same day you earned the credit, clearly stating the reason why you earned it. The instructor will reply to your email confirming you got it (save these emails as proof you earned the credit).

GRADING SCHEME

This syllabus subject to change to better meet course objectives per discretion of instructor.

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• 90% to 100% of total points will earn an “A” (excellence-level) grade.
• 80% to less than 90% of total points will earn an “B” (acceptable-level) grade.
• 70% to less than 80% of total points will earn an “C” (minimal-level) grade.
• Less than 70% of total points will earn an “F” (failing) grade.

COURSE CALENDAR OF ACTIVITIES

By taking this course, you agree to abide by the Course Calendar, same which is available on the Blackboard Learn Course website (make sure to check the website at least once daily).

Students are responsible for staying on-schedule and for completing all assignments and should plan on allocating the necessary amount of time for reading, studying, homework and other assignments to successfully complete the course (in civil engineering most students need a minimum of 2 to 3 hours of additional work and study for each hour of lecture-classes attended).

The UTRGV academic calendar can be found at the "myUTRGV" website page (located at the bottom of the screen, under “RESOURCES” -prior to login).

OTHER COURSE POLICIES

ATTENDANCE

Students are expected to attend all scheduled classes and may be dropped from the course by the instructor if they accumulate more than 3 unexcused absences (unexcused tardiness to class will count as a 1/2 absence, therefore 2 late attendances will equal a full absence). UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holydays; or for military service. Students should contact the instructor in advance of the excused absence when possible, and arrange to make up missed work or examinations. No excuses will be granted more than 24 Hrs. after the absence occurs.

LATE WORK POLICY

In the civil engineering profession, being late with your work usually means losing projects, a lot of money (and even your job...), therefore we are quite strict about assignment deadlines and NO LATE WORK WILL BE ACCEPTED, so please plan to finish all work at least 1 day ahead of the deadline to prevent last-minute problems!

SUBMISSION OF ASSIGNMENTS

Instructions for proper assignment submission are given during class and/or are posted on the Blackboard Course Site, so make sure to check Blackboard frequently (we recommend at least twice a day). If you are in doubt, double-check with the instructor way before the due date.

This syllabus subject to change to better meet course objectives per discretion of instructor.
COMMUNICATION SKILLS

All students must have adequate writing skills to communicate content in a professional and concise manner. Students must be proficient in their written presentations including strategies for developing ideas, properly citing scholarly references, using the right writing style, wording, and phrasing, and using the corresponding language conventions. Students must follow MLA Formatting and Style Guidelines, use non-racist and non-sexist language, and include sufficient references to support their thoughts and ideas. All work should be neat, well-organized, easy to read and well-illustrated (that is usually what we call “professional-quality” in civil engineering).

NETIQUETTE

Netiquette describes the code of conduct for a face to face or online environment. It ensures respect for others and prevents misunderstandings or unintentional offenses to others. The netiquette described here is amended to ensure your success in this course.

- When you are typing or submitting a response, do not use all capital letters (caps). Caps is equal to SHOUTING YOUR MESSAGE.

- Although it is customary to use acronyms (ex. ROFL - rolling on floor laughing, BTW - by the way, or FYI - for your information) when chatting online, try to avoid using these. There may be those in this course who are not as experienced as you and may miss out on understanding.

- Although you are encouraged to participate and ask questions, it is asked that you do not spam other users (SPAM refers to unwanted or excessive email). Before sending mass emails, consider using the discussion board to post general inquiries or requesting assistance from your instructor.

INSTITUTIONAL POLICIES

STUDENTS WITH DISABILITIES

Students with a documented disability (physical, psychological, learning, or other disability which affects academic performance) who would like to receive academic accommodations should contact Student Accessibility Services (SAS) as soon as possible to schedule an appointment to initiate services. Accommodations can be arranged through SAS at any time, but are not retroactive. Students who suffer a broken bone, severe injury or undergo surgery during the semester are eligible for temporary services.

Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at ability@utrgv.edu.

Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at ability@utrgv.edu.

MANDATORY COURSE EVALUATION

This syllabus subject to change to better meet course objectives per discretion of instructor.
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (the "myUTRGV" website page); you will be contacted through email with further instructions. Students who complete their evaluations will have priority access to their grades.

SCHOLASTIC INTEGRITY

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University.

Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts.

Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

DEFINITIONS

“Plagiarism is a form of cheating. At UTRGV, “plagiarism is the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own academic work offered for credit.”

IMPORTANT: Plagiarism and sharing work won’t be tolerated; Assignments may be randomly audited with special software at any time and if there is evidence of cheating, for example copying or “sharing” of homework, research assignments or AutoCAD drawing files between students, or from the web, the instructor will need to take corrective action, including assigning low or failing grades and referral of the offending student(s) to the Dean of Students. So please be smart and don’t make a big mistake which you will regret the rest of your career!

Course policies are subject to change. It is the student’s responsibility to frequently check Blackboard for corrections or updates to the syllabus or to the course calendar. Any changes will be posted in Blackboard.

SEXUAL HARASSMENT, DISCRIMINATION, AND VIOLENCE:

In accordance with UT System regulations, your instructor is a “Responsible Employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at the Office of Institutional Equity website page, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect that is free from sexual misconduct and discrimination.

COURSE DROPS

This syllabus subject to change to better meet course objectives per discretion of instructor.
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for 3rd time.

IMPORTANT FINAL NOTES

By registering to this course you hereby agree to the provisos detailed in this document, therefore if you have questions, or find any errors or omissions in the syllabus or calendar, you need to immediately notify the instructor via email, otherwise you are required to abide by the document as stated herein -in other words, THIS IS A CONTRACT YOU ARE AGREEING TO (contracts are extremely important in Civil Engineering, since missing just a small detail in a contract could mean losing the opportunity to get a great project -or could result in you and/or your firm getting fired, or even worse, being sued and losing a lot of money, so please make it a habit to carefully and thoroughly review -and understand- everything written in a contract!

Please note that both the syllabus and course calendar are available on the Blackboard site and may be revised as deemed necessary by the instructor in order to meet the stated educational objectives, therefore make sure to check blackboard daily to see if there are any changes, and to review all the other materials, assignments and course-related announcements.

I look forward to having you in class; and I am sure you will realize the importance of this course in building a strong foundation which will set the stage for a successful career in this amazing profession.

Welcome, bienvenido!

Sincerely,

Profe Vidal

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