GIS 40 – Introductory GIS
COURSE SYLLABUS (v1a) – FALL 2025, Sec. 2135

Instructor: Reg Parks
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Lecture: Tues., 6:00 AM -- 9:00 AM, ONLINE-ZM
Lab: Thurs., 6:00 AM -- 9:00 PM, ONLINE-ZM
Office Hour: T-Th., 9:00 PM – 9:45 PM, ONLINE-ZM
NOTE: Students are expected to carefully read the Online Course Syllabus & any Addenda

Program and Instructor Web Pages:
Reg Parks SRJC Web Page
CESGT Program Web Page
Civil Engineering Certificate Web Page
Geospatial /GIS Certificate Web Page
Land Surveying Certificate Web Page

WELCOME TO GIS 40 !!!

Lectures and Laboratory: GIS 40 is a 4-unit course. **It is listed as a general education course, but is taught WITH SOME EMPHASIS on civil engineering and land surveying because it is a required course for the four CESGT AS/Certificate Program disciplines.** Lectures will comprise approximately three (3) of the six (6) weekly course hours with the remainder devoted to laboratory activities. The time distribution may vary occasionally depending on student progress, content, and specific class projects. SRJC offers remote access to Lindley 196 (L196) workstations via a VMWare Horizon Client that must be installed directly on the student's home/personal computer. **Active, synchronous, full-face Zoom lecture/lab attendance via laptop or desktop over a reliable, 5+ Mbps minimum internet connection is mandatory.** The class will be conducted around the use of ArcGIS Pro software with file distribution via the SRJC File Depot. This course will not be offered on Canvas. **Portions of week 1 class time will be devoted to using L196 workstations and software applications in the GIS40 cartographic, data management, and problem-solving process.**

Mandatory Final Exam Date: TENTATIVE – Tuesday, Dec 16th, 6:00PM – 9:00 PM

Textbook and Required Supplies:

GIS 40 Required Course Text: 1.) GIS Fundamentals: A First Text on Geographic Information Systems, Paul Bolstad, Eider Press, 7th Edition, 2022 **GIS 40 Recommended Course Text:** 1.) Lining Up Data in ArcGIS: A Guide to Map Projections, Margaret M. Maher, ESRI Press, 3rd Edition, 2018	**GIS 40 Course Reference Materials:** 1.) GIS Library Folder: articles, handouts, white papers and user guides and manuals (work in progress and constant revision) **ALSO REQUIRED:** Scientific-Engineering calculator (I will only support the following: HP 33s, HP 35s, TI- 30X-IIs models any others are on you, pls know how to use it).

Additional Outside Reading: *OPTIONAL!!!*

1.) Introduction to Geographic information Systems, Kang-tsung Chang, McGraw-Hill, 5th Edition, 2010 2. GIS Concepts and ArcGIS Methods, David M. Theobald, Conservation Planning Technologies, 2nd Edition (ver. 9.x), 2005 3. GIS Concepts and ArcView Methods, David M. Theobald, Conservation Planning Technologies, 3rd Edition (ver. 3.x), 2001	3.) Statistical Analysis of Geographic Information with ArcView GIS and ArcGIS, David W.S. Wong. Jay Lee, Wiley Press, 2005 4.) Elementary Surveying: An Introduction to Geomatics, Paul R Wolf, Charles D Ghilani Prentice Hall, 11th Edition, 2005 ** ** most of these books are on reserve in the Doyle Library

SRJC Technology AS Degree/Certificates Program & Career Technical Education (CTE)

Students enrolled in the SRJC CESGT Program must complete all coursework with a grade of C or higher to advance or to qualify for a degree/certificate. For more information, please consult the Program Coordinator (see links above). CESGT Certificate students should begin early to establish their certificate sufficiency and candidacy in their portal/cubby. Portal Main Page > "District Announcements" > "Degree Audit Available".

This is an introductory course in a series of college courses that prepare the student for a career as a CESGT technician/professional. These courses are designed to develop entry-level or mid-level career skills and are designed in conjunction with guidance from local professionals who assist in establishing course curriculum. Introductory courses are also gateway courses leading to a degree or certificate. SRJC recognizes its responsibilities to all CTE students and to the professional community into which they will graduate.

GIS 40 COURSE CONTENT:

Student Learning Outcomes:

Upon successful completion of this course, the student will be able to:

1. Define the elements of a geographic information system (GIS)
2. Describe the applications of GIS for different disciplines
3. Create a GIS using image, geographic and database information

Objectives:

Upon successful completion of this course, the student will be able to:

1. List the primary functions of a GIS.
2. Understand elementary spatial analysis of data.
3. Define image, geographic and database methods of representing data.
4. Describe the differences between CAD and GIS.
5. Use different types of graphic symbols.
6. List and identify different file structures and their advantages and disadvantages.
7. Describe data storage, editing and retrieval techniques used in a GIS.
8. Create a GIS using image, geographic and database information.

COURSE EXPECTATIONS:

GIS40 is the first in a series of three Geospatial/GIS certificate courses (Intro, Advanced, and Data Acquisition – currently on hiatus). Together, they are designed to provide the fundamentals of cartography, GIS data management, data analysis, basic project development & basic map/report production skills. In GIS 40, we introduce the fundamentals within the program context of preparing students to become entry level and mid-level GIS technicians. A serious student attitude is strongly encouraged and a team learning approach underpins the course culture. A team learning approach is one where a student takes an equal (or better) measure of responsibility for their learning experience through their participation, performance, and professional attitude.

Class Preparation:

Students are expected to arrive on time for each class session, to read as assigned, complete assignments on time, to be prepared in advance for every class session, and to remain for the entire time. *It is strongly recommended that students write down any questions about the material while reading and studying and bring them to class for clarification at the beginning of lecture or lab.*

Students are expected to have successfully completed high school math (Algebra, Geometry and Trigonometry or equivalent) with a grade of C or better. Students are expected to be comfortable with

microcomputer operations, Microsoft (MS) Windows Operating System (OS). *MS Windows file management*, MS Windows File Explorer, web browsers (MS Internet Explorer/Edge, Google Chrome, or Firefox), *Adobe Acrobat Pro/Reader or Sumatra PDF (free downloads)*, Windows Notepad and MS Office Suite (Word, Excel, PowerPoint). Tutorials are available at SRJC and on You Tube.

Access to a computer, word processor, spreadsheet application, PDF organizer/editor and a reliable internet connection of 5+ Mbps or better are key and critical to passing this course. This is a lecture and lab course held online and/or in a computer lab. **For online sections, remote access to CESGT computer lab facilities will be required to successfully complete the assignments. Scheduled online open lab hours will be posted when available.** Spring 2025 Lindley Open Lab times **Students must obtain a VM Ware class account from the instructor on the first day of class. Access will require use of their student ID number.** The computer lab manager is Todd Amos, Micro Computer lab Specialist. He will issue notices to student regarding important Lindley Computer Lab issues during the semester. Please pay close attention to those emails.

Any student who feels that they have not met or cannot meet the requirements and expectations for this course should contact the instructor before the second class meeting. There are classes available that will help you prepare for this program.

Attendance:

- Regular attendance is required for both lab and lecture hours. Lack of attendance can and will affect student grades for this course.
- It is good practice to notify the instructor **by email** if one is going to be tardy or absent. An excused absence may be granted by contacting instructor sufficiently **prior** to the beginning of class.
- Students are responsible for all material discussed in lecture and lab, class readings or instructions via the internet (email) as well as the readings and assignments. Taking notes is a strongly recommended practice.
- **Students are responsible for correctly obtaining any missed lecture or laboratory course information from their fellow classmates.** *Please do not expect the instructor to provide on-demand email services for absenteeism or failure to retrieve one's files from the network drives.*
- Class participation can and will affect one's final grade as will one's class conduct.
- There will be no make-ups for missed class activities (quizzes, exams, in-class demonstrations, labs, etc.). Rarely, certain late assignments may be accepted but will be discounted starting at 20% off of the total point value depending on how many classes have passed since the due date. Such instances will be solely at the instructor's discretion. *After 11/29/2025, no late submittals will be accepted for any reason.*
- *According to school policy, if a student misses over 10% of any course, they can be dropped from the course. For this 4-unit course,* 17.5 wks. x 6 hrs./week = 105 hrs.

Assignments and Examinations:

- According the SRJC policy, the average student should expect to complete a minimum of 1-2 hours of reading and/or homework for every hour of class (e.g., 4-8 hours per week for a 4 unit course).
- *Completed assignments per instructor's verbal or handout specifications are the student's responsibility. Failure to meet provided specifications may result in papers being returned without credit!*
- Course deliverables shall be submitted as follows:
  - students should refer to supplemental instruction sheets for each module unless otherwise directed. Maps and diagrams shall be submitted on 8½" x 11" (mostly), 11" x 17" or 24" x 36" sheets (properly appointed and folded if hard copy) or on worksheets provided by the instructor,
  - *when* specified, assignments are to be submitted as PDFs. They may be saved/exported from an application (ArcGIS, C3D, MS Word, etc.).6 Multiple PDFs will be appended in page/logical

assigned order and submitted as ONE SINGLE FILE to a specified online drop box area. ***(Hint: use the organize tool in Adobe Acrobat or equivalent)***

- each file will have a prescribed filename that will be provided in each assignment's instructions. There will be no exceptions. *When an assignment originates from an MS Word file, **BOTH** the .DOC AND the .PDF files are to be submitted. The same goes for .DWGs and their corresponding .PDFs,*
- please include your name, course number, assignment parameters (module number, exercise number, problem numbers, etc.), and due date on the first page (cover page) of every assignment,
- any written reports, essays, or term papers shall be word processed and formatted per instructions provided. No handwritten assignments will be accepted,

Failure to observe any of these conditions may result in papers being returned without credit!
Completed assignments are the student's responsibility. Kindly manage your time and familiarize yourselves with assignments early. If clarification is needed or an ambiguity is suspected, contact the instructor sufficiently early to allow timely completion.

ONLINE Course Supplement: Unless otherwise specified, ALL assignments will be submitted as single PDFs. They may be saved/exported from an application (ArcGIS, C3D, MS Word, MS Excel, etc.). Multiple PDFs must be appended in logical assigned page order and submitted as ONE SINGLE PDF FILE to a specified online drop box area. ***(Hint: use the organize tool in Adobe Acrobat or equivalent)***

Please be advised, your instructor will not attempt to convert or repair files from 3rd party software not directly readable by MS Word and Adobe Acrobat. This would include applications such as Google Docs, Google Sheets, Google Workspace, Libre Office Apps, Zoho Workplace, Open Office, WPS Office, etc.

E-Learning Lab Modules: Students will complete between six and eight **(6-8)** laboratory assignments found in your textbook or workbook. Most will be further explained with additional supplementary instructions. Each will be worth **30-150 points**. Any s*upplementary handouts will be provided at the time of the assignment and reviewed in class.*

Students will follow the exercises instructions and handouts as directed by your instructor, completing (submitting) all map layouts where directed (5-20 points per map, usually 10). All module exercises will be completed and submitted as follows:

- Module cover sheet (student name, course, date, module #, exercise #)
- Module maps in order of module assignment per specifications and instructor directions
- All pages stapled together and folded to 8.5 x 11" format size (excepting 24x36") – if hard copy

The instructor will scale the total scores as reflected in the point distribution column in the table below. Students will be assigned 2-3 Challenge Exercises related to certain modules, each worth 50 - 150 points. Instructions will accompany the assignment. They will be more rigorous than the Modules. Please take them very seriously.

VIP!!! These ESRI course materials AND exercise datasets are no longer offered as online courses but are offered as a PDF workbook provided by your instructor.

ArcGIS Pro: these modules are being adapted from ArcGIS Desktop for ArcGIS Pro. This is a work in progress across multiple instructor platforms that began in fall 2024 when the department migrated from ArcGIS Desktop 10.8.2 to ArcGIS 3.x. If you believe you have found a typo or an area needing clarification, please inquire with sufficient time to complete your work.

Very occasionally ArcGIS application version dialog boxes and screens will appear be slightly differently than in the course PDF due to recent version changes. THIS IS A LEARNING

OPPORTUNITY and an ongoing challenge found in ANY large application software suite (Adobe, Autodesk, Topcon, Trimble, Microsoft, etc.) that is annually or semi-annually revised. My advice…STOP, reread the instructions, and think about what it is you are doing to the data and to the map in that particular step.

ArcGIS Desktop: a great and mature application interface but no longer supported by ESRI and no longer used in the CESGT program.

Be advised that one of the BEST sources of help after trying ArcGIS onboard help functions is *a focused online key word search.* PLEASE become familiar with how to use online help to support your work just as one would if they were employed in the industry. IF working remotely, save your work often and in a network location KNOWN TO YOU! Do not save to your local workstation C:\ drive. Follow the GIS 40 folder structure and file naming as pointed out by the instructor in the first 1-2 class sessions.

Quizzes & Exams: Students may expect one (1) to four (4) unannounced quizzes, usually administered at the beginning of class, over the course of the semester. Students may expect one (1) to three (3) midterms and one final **exam. Exams are usually worth 100-350 points each**. The format for the exam is short answer, short essay, and may include a lab component. Class examinations are mandatory as scheduled. There will be no make-up exams. Please note: a phone message left a few minutes before class stating that you cannot be present is an appropriate courtesy but does NOT necessarily constitute an excused absence. Please plan ahead.

Student Mini Map Project: Students will develop and present a special map project over the latter portion of the semester. This project may involve submitting a project proposal for instructor approval, obtaining GIS data to complete a preliminary map, completing the map and presenting the map to the class.

Essay / Report Assignment Submittal and Format:
All essay assignments are to be neatly word processed. *Electronic copies (Word and PDF) should accompany any hard copy output from Lindley plotters, shall be submitted per specifications or as directed by your instructor.*

Laboratory assignments (reports/summaries and class projects) will be submitted in scientific manuscript format *(Introduction, Materials & Methods, Results, Discussion and Conclusions)*. This includes any examinations that require a laboratory report or project report. Any essay type questions will follow the standard 5 paragraph essay format for writing style.

Links to additional examples of writing styles discussed above:
A. Scientific Writing Format:
http://writing.colostate.edu/guides/processes/science/pop2a.cfm
http://abacus.bates.edu/~ganderso/biology/resources/writing/HTWgeneral.html

B. Essay Writing Format:
http://www.englishdiscourse.org/5.paragraph.essay.format.html
http://www.custom-essays.org/essay_types/Five_5_Paragraph_Essay.html

Scientific Calculators:
Students should have a scientific calculator and know how to use it (the range of recommended models will be discussed). For CESGT degree/certificate students, your instructor recommends the HP33s, the HP35s, and/or the TI-30XIIs as these are calculators that will be allowed on certifying, licensure and board examinations. The instructor will NOT be responsible for training students in the use or programming of scientific calculators in this class.

For Civil and Surveying certificate students, your instructor strongly recommends the HP33s, or the HP35s as these are calculators that will be allowed on certifying, licensure and board examinations. Students are responsible for learning and performing the programming and operation of the HP calculators. HP Programming guides will be discussed in APTECH 191 and/or SURV60 as part of the CESGT Program content.

Grading Policy:
A score is assigned to all submitted work. A letter grade will be assigned at the end of the semester based on the point weighting and percentage breakdowns described below.

Work Distribution		Point Weighting		Percentage (Grade)
Module/Challenge Assignments		~51%		90 - 100% (A)
Quizzes & Exams		~40%		80 - 89% (B)
Student Map Project		same as a Module		70 - 79% (C)
Student Participation		~09%		60 - 69% (D)
				< 60% (F)
Total:		**100%**		

An incomplete grade **"I"** will only be given as prescribed by college rules and regulations. ***Prior*** approval of the instructor is required. In order to advance in the CESGT program students must receive a grade of "C" or better.

SRJC STUDENT WEB READING (required):
It is the student's responsibility to consult the SRJC web-based information listed below -- please do so, they are considered parts of this syllabus.

SRJC Academic Schedules & Calendar to identify all important dates, deadlines and academic policies such as those relating to unexcused absences, adding and dropping classes. Students will follow all directions on exams and assignments sheets. When asked to work independently that means no collaboration *Also, please observe the emergency evacuation signs in each of the classrooms & computer labs...*

Schedule of Classes: https://classes.santarosa.edu/
Academic Calendar: https://admissions.santarosa.edu/academic-calendar/

SRJC Academics Information: https://www.santarosa.edu/academics/
SRJC Affairs and Programs: https://studentlife.santarosa.edu/student-affairs-engagement-programs

SRJC Disability Resources: https://drd.santarosa.edu/
SRJC Rights and Responsibilities: https://rightsresponsibilities.santarosa.edu/
(Please take careful note of the section on Academic Integrity, cheating of any type will not be tolerated)

General Class Conduct & Courtesy: (in-class or online attendance where applicable)

Passwords, Accounts and Access Codes: Students will be allowed virtual and physical access to SRJC workstations in Lindley 196, and will be required to establish user accounts there, and at other websites. It is the responsibility of the student to keep track of their user-names, passwords and security codes. Lost or forgotten passwords are not an acceptable reason for incomplete assignments.

During online course sessions: Students should be on time, prepared, attentive, timely with all quiz and exam submittals and avoid disruptive behavior during lecture and laboratory sessions, ***note taking is <u>strongly</u> encouraged***.

During virtual/in-person Lindley 196 open lab sessions:
The department will offer several ONLINE open lab sessions per week on workstations in the *L196 computer lab*. They will be hosted by Mr. Todd Amos. He is familiar with many of the software programs and available for assistance with software methods – NOT course content. Todd is a valuable resource. A schedule of these sessions will be circulated (see above) when he makes one available. He is in-charge of these sessions at all times.

During these sessions, or at any other time you are using L196 workstations, if you are prompted with a screen warning to shut down, **please do so**. Save your work and shut down PROMPTLY. This means another scheduled class needs that workstation and will begin shortly. **If you do not comply promptly, you run the risk of an abrupt automatic shut-down and potential loss of work.**

Screen shutdowns are the student's responsibility to notice. Proper window management/desktop organization will help to avoid such events as data loss from a "surprise" shutdown due to not having seen the warning screen.

Cell Phones: Turn cell phone ringtones off and refrain from taking calls during class or open sessions. If you must receive a call, please mute your session and/or leave the room.

ABSOLUTELY NO FOOD OR EATING ALLOWED DURING ONLINE CLASS or in L196 LAB!!!
and once again for the cheap seats.....

ABSOLUTELY NO FOOD OR EATING ALLOWED DURING ONLINE CLASS or in L196 LAB!!!
(nobody wants to see (or hear) you crunching potato chips or eating your chicken salad sandwich with your mouth open, licking your fingers, wolfing down a wrap or sandwich thankyouverymuch)

Passwords, Accounts and Access Codes: Students will be given SRJC computer user accounts and will be required to establish a user accounts at other websites such as ESRI. In some cases, authorization codes may be assigned to each student. It is the responsibility of the student to keep track of their user names, passwords and security codes. Lost or forgotten passwords are not an acceptable reason for incomplete assignments.

Computers, Equipment and Equipment Handling: (online and in-person class sessions, some may not apply)
The Department of Engineering and Applied Technology CESGT Program updates and maintains excellent computer hardware, software, printing and plotting devices. In order to provide optimum laboratory access and usage experience; all students are expected to be familiar with and follow the posted and expressed rules for the computer labs (L196 and L186). **Any student observed violating the rules may be excused from class (first offense). Repeat offenses will result in a student being dropped from the class.**

In some classes (e.g. SURV to GIS to SURV), the same computer profile may NOT follow you to another workstation. Desktops may appear a bit different and privileges may differ slightly. Please take that into account. Students may be assigned specific, semester-long, physical workstations for in-person labs and assigned random workstations for online labs. Students may not be able sit at another physical workstation without permission from the instructor.

The Lindley STEM Center is a brand new building. As students will learn in engineering and construction courses offered in the various programs, no construction effort is 100% perfect. There are always issues and post-construction punch lists. ***Although starting Jan 2024, courses were offered while construction and warranty activities were still underway, the situation has not changed.*** This was and is out of program and faculty control. SRJC Admin, Capital Projects and Legal Teams direct this process. The Information Technology (IT) Department remains short-handed requiring faculty departmental tech support to assist where possible. IT and the department continue to work at providing the optimal computer hardware and software and service offerings to Engineering and Applied Technology students. Students are encouraged to being their concerns to their

instructors. Students are also advised that the normal ongoing transition and its attendant security and technology issues may present minor hiccups and instructors and students will have to adapt.

Students are to treat CESGT course equipment with proper care. Any damaged or malfunctioning computer or survey equipment shall be promptly reported to the instructor. Students observed mistreating the equipment will be warned either openly or in conference. Students who are repeatedly observed misusing equipment will be excused from that class. Students excused from class activities for mistreating equipment will not be allowed to make up that day's work. A second such event may result in a student being dropped from the course.

There are data volumes (named folders) on the various L196 network drives. Some will contain equipment documentation files for the various devices and software applications on the network drives. Any hard copy documentation and display articles are **NOT** to be taken off the lab premises or off campus for **ANY** reason without prior approval of the instructor. STUDENTS ARE NOT PERMITTED TO PRINT SOFTWARE DOCUMENTATION FILES ON SRJC PRINTERS. When such documentation is required for an out of class assignment, it may be obtained from the \PATHNAME*\Library folder in electronic format.

Assignments and support information will be provided on the SRJC network drive or File Depot and should be copied to the student's network, USB, or network home drive BEFORE opening or operating on the file or files. The majority of the support documentation is in PDF format. Students are expected to be familiar with the use of Adobe Acrobat Pro software. Please make certain that you allow yourself the necessary time to transfer the appropriate support documentation in advance of assignments and class exercises.

GIS 40 students will receive a familiarization presentation covering the in-class/online remote computing equipment as part of the first-day regular curriculum (class time). Account passwords and authorization codes will be issued at that time. These presentations will not be repeated. SRJC provides laboratory supervision and limited software support during the open lab hours on the Santa Rosa Campus. Please familiarize yourselves with Mr. Todd Amos' schedule. He is super knowledgeable and a valuable resource.

Lindley 196 Computer Lab Network Drives (subject to change due to new VMware changes)

Drive C:	Local hard drive in the computer (Do not save/store your files on this drive!!)
Drive ?:	(**TBA**, private drive unique to each person-copy class materials to this drive)
Drive N:	(Read-only to students (generally F:\ for GIS40). Full-access to faculty and staff. Please copy distributed class materials FROM this drive ASAP)
Drive M:	(Full-access to everyone) will be deleted periodically. Please don't leave your private or important files on this drive.)
Drive ?:	(**TBA**, under construction, this will be a student submittal/grading drive, more later…)

PATHNAME=the SRJC network drive pathname to be established in class for the file location or locations

When working in-person (not remote) on L196 workstations, student USB drives or external HDDs should be inserted **AFTER** logon is complete. External HDDs and USB drives should be used for backup and transfer of materials to outside/personal computers.

FOLDER AND FILE NAMING IS IMPORTANT!!!
The instructor will review file and folder naming conventions for this course. Students will maintain required folder structures, pathnames and file names for their module assignments between network, USB, and home computer drives. This will avoid the loss of internal software data linkages. (Aka: the "red exclamation point of death" occurring in the table of contents of ESRI software)

File Distribution:

Certain course files for distribution will be available on the classroom network drive (N:\ drive) and/or on the SRJC File Depot (link below). Details to be discussed in class.

This semester, I will be using a combination of the L196 network drives AND **SRJC FILE DEPOT** to distribute large files over the internet and to receive large files and assignments. This will keep my SRJC mailbox from over filling with large attachments (assignments). Use of this site will be discussed over the first few class meetings. *Again, Canvas will not be used.*

Note: instructor-posted files on the file depot will remain available for ~ 2 weeks after posting and then be deleted. Be certain to download the files right away. Exams will be posted for 24-hours only.

Syllabus Purpose and Disclaimers:

This syllabus constitutes an agreement. Continued enrollment (past day 1) in GIS40 *means that you, the student, tacitly agree to the policies and procedures outlined in this document and any verbal course directives provided in class. If some aspect or aspects of the syllabus are unclear to a student, it is their responsibility to inquire regarding that matter before the second class meeting.*

This syllabus and a corresponding course calendar (provided on the 1st week of class) are intended to provide guidance as to what will be expected during the semester and will be followed as closely as possible. The instructor reserves the right to modify, supplement or make changes as necessary for administrative or general course needs as the semester progresses.

Instructor Commentary:

The CESGT 1-year programs move along quickly. The GIS 40 course is an introductory, gateway courses to spring semester courses. The follow-on spring semester courses offer additional pathways towards program AS degrees/Certificates and pursuit of a professional career.

The CESGT Program is in its 58th year at SRJC and has undergone consistent evolution and change. This is because technology is constantly changing. Today's new-tech is next week's antique. This is why the program strives to provide students the core fundamentals and "technical mechanics" of what is happening when a process is applied to a problem. For this reason it is imperative to learn the classical methods first (mostly fall semester) and then follow with the new-tech methods (mostly spring semester). The goal is to produce "thinkers" rather than "button-pushers" who view this program as a pathway to a professional career more than just a job or a pay-check.

CESGT DEFINITIONS:
Button-pusher – one who pushes a button to produce a number they do not fully-understand and cannot fully-explain.

Thinker – one who understands the problem and solution in advance and pushes the correct button to achieve the planned and desired result after which they can explain what happened and why.

The bulk of GIS study is initially performed in your mind and subsequently implemented with technology as simple as a pencil and paper or as fancy as a calculator or computer workstation. It cannot be emphasized how important it is to fully-apply yourselves at every lesson opportunity. The

lectures, labs and examinations in these courses are not easy. They are designed to orient and prepare students for the workplace, qualification and licensure exams. They also reflect the serious professional obligations that newly licensed land surveyors and civil engineers will undertake for the state or states in which they practice. Please make the absolute best use of your time.

Thank you and WELCOME.

Respectfully,

Reg Parks

SRJC E&AT CESGT Program

(This is a dynamic document. Please report any typos, broken links, or inconsistencies)