



Clark State Community College

GEO 1000, Introduction to GIS and Cartography

Public Course Master

Status	Approved	Division	Business and Applied Technologies
Credits	3	Term	n/a
Terms Offered	Fall, Spring	Modalities	Online, Hybrid
Global Awareness	Yes	General Education	Social/Behavioral Sciences
Locations Offered	Beavercreek, Online, Springfield		

Prerequisite(s)	CPE 0200 and CPE 0500
Pre/Corequisite(s)	none
Corequisite(s)	none

An appropriate COMPASS placement, ACT, or SAT score will satisfy the respective CPE requirement.

Permission Required No

Fees Lab and other \$50.00

Description Geographic Information Systems (GIS), their capabilities, uses, and limitations. Basic cartographic concepts including manipulation, analysis, and graphic representation of spatial information. Emphasis on technology of map design principles with GIS and desktop mapping programs.

Contact Hours (per week)	Lecture	2 hours
	Lab 2:1	2 hours
	Total	4 hours

TAG Number (OAN) OSS026 **CT² Number (CTAN)**

- Course Goals**
1. Explain the history of and define key concepts related to GIS and geographic data
 - Cite the history and principles of GIS
 - Describe the key components of GIS
 - Describe the role of GIS in modern society
 - Locate features on a map, recognize features in relation to real-world elements, and identify design principles
 2. Discuss the history of cartography
 - Define cartography
 - Describe how compilation, production, and distribution methods used in map-making have evolved
 - Describe how symbolization methods used in map-making have evolved
 3. Understand the concept of map projections and the uses and limitations of general projection categories
 - List the different types of geographic coordinate systems
 - Describe map projections and their effects on area, shape, and direction
 - Define units of measure as related to geographical data
 - Explain the relationship between a coordinate system and the earth's surface
 4. Identify the basic types of maps and geographic data used with GIS

- Identify different types of maps and their uses
 - Describe the characteristics of raster and vector data
 - Demonstrate an ability to categorize geographic data at appropriate cartographic levels
5. Understand the elements of a map, including symbolization and scale
 - Demonstrate the appropriate use of map elements
 - Identify basic key elements of a map
 - Create and modify map elements
 - Select proper map symbology based on industry-specific standards
 - Describe the basics of color theory applications
 - Produce custom map templates, styles, and symbols
 6. Understand the value, limitations, and appropriate use of different types of thematic maps
 - Identify the various types of thematic maps
 - Associate the appropriate thematic map based on data types
 7. Demonstrate the ability to use maps to measure distance, compute area, and analyze spatial patterns
 - Interpret geographic patterns from different types of maps
 - Use maps to correctly measure distance and compute area
 8. Understand the ways in which different types of geographic information are represented on maps
 - Locate features on a map, recognize features in relation to real-world elements, and identify design principles
 - Select appropriate classification methods when displaying numeric attributes
 - Create maps from attributes using different map types
 9. Categorize geographic data at appropriate cartographic levels
 - Distinguish between nominal, categorical, ordinal, and ratio/interval data
 - Distinguish between the different methods of classifying numeric data
 - Associate the appropriate data type to a suitable map type
 10. Understand various geographic technologies
 - List the methods of geographic data collection
 - Operate industry-leading commercial GIS software

Outcomes CORE

none

Program

- Interpret and analyze geospatial information (Geospatial Technology)
- Acquire geospatial information from a variety of sources (Geospatial Technology)
- Use geographic information system software for storage, manipulation, and analysis of geospatial data (Geospatial Technology)

College Information

College Mission - To serve a diverse population of learners by providing access to high-quality, learning-centered education and services while fostering individual and community success.

Assessment of Student Academic Achievement - Student learning is central to all that we do at the College. Faculty assess student learning in a variety of ways, including in-course assessments, portfolios, certification examinations, employer surveys, success of transfer students, and many others. The results of our assessment of student learning efforts are used to improve student learning.

Students with Disabilities - In accordance with the American with Disabilities Act, it is the

policy of Clark State Community College to provide support services to persons with disabilities. The Office of Accessibility 937-328-6019 (Springfield) or 937-429-8819 (Beavercreek), is the official contact for students with disabilities who request reasonable accommodations, auxiliary aides, and/or services to provide equal opportunity for academic success. Students must self-disclose their disability to and register with the Office of Accessibility in order to receive accommodations. If you have already presented your documentation and/or arranged accommodations through the Office of Accessibility, you are required to provide the instructor with your accommodation letter. Accommodations will only be provided after the letter is submitted to your instructor. Any request must be made so that the instructor has sufficient time to meet your needs. It is the student's responsibility to schedule tests with the instructor and The Office of Accessibility. If any students with disabilities may need help evacuating the class in an emergency situation they should speak with their professor and the Office of Accessibility about an evacuation plan.

College Bookstore - Information about textbooks required for each section, including estimated prices, can be found on the bookstore website at <http://bookstore.clarkstate.edu>.

Tutoring Services - Tutoring is available by subject area, for most courses, free of charge to all Clark State students. A schedule of available tutoring hours will be posted at the beginning of every term. For more information about tutoring services contact the Student Academic Support Center, Rhodes Hall, Room 105, 937-328-6049 or the Greene Center, Room 121, 937-429-8921.

Course Withdrawal - If for any reason you cannot complete this or any other course, you must officially withdraw from the class by the published last day to withdraw. If you officially enrolled in a course, you may receive a grade for the course unless you complete and submit a drop form in accordance with College policy.

For regular 15 week term courses: If the course is dropped prior to the 15th day of the term, the work attempted will not be counted and no notation of the enrollment will appear on the transcript. If the course is dropped after the 15th day of the term through the published withdrawal date, indicating completion of 70 percent of the term, the grade of W will appear on the transcript. After the published last day to withdraw, students will receive the grade earned as defined in the syllabus; and including zeros for any work not completed. After the withdrawal date, students who have an unexpected and serious issue arise and who had been progressing satisfactorily up to that point will need to petition the appropriate academic dean to obtain an approval for a grade of W.

For flexibly scheduled courses: Flexibly scheduled classes (sections coded with an X) also use the 70 percent rule for grade and withdrawal purposes. Contact the Records and Registration Office for the exact last day to withdraw from a flexibly scheduled class.

Students who do not attend by the 15th day of a regular term will be administratively dropped for non-attendance. The course will not be counted and no notation of the enrollment will appear on the transcript.

Students who stop attending class prior to completion of 70 percent of the term, but fail to officially withdraw from the course, will receive a grade of UW (unofficial withdrawal). A UW grade is counted in the grade point average and has the same impact as an F.

Drop/Add forms are available from academic division offices, advising offices, Records and Registration, and the Greene Center and Bellefontaine offices. You can also drop courses online through WebAdvisor unless there is an academic hold (i.e. College Credit Plus or probation students) on your record. Students with an academic hold can email the Records and Registration Office at records@clarkstate.edu to request the withdrawal.

Students who decide to withdraw from a class and have any kind of financial aid should consult with the financial aid office prior to the withdrawal to determine what affect it will have on their financial aid status. Students who receive Veteran's benefits and drop a

class or withdraw from all classes are responsible for notifying the Veteran's Certifying Official (937-328-7937). Courses dropped anytime during the term could result in an over-payment dating back to the first day of the term.

Incomplete Grade - If you have been progressing satisfactorily in a course, but for reasons beyond your control (death in family, personal illness, etc.) you cannot complete all of the requirements for the course, you can request an incomplete grade (I) from the instructor. Guidelines for progressing satisfactorily are completion of 70% of the coursework with a passing grade. You must notify your instructor by the last day of any term. If the instructor agrees, you will work out a mutually agreeable completion schedule. The date of completion can be no later than Friday of the eighth week of the following semester. A student receiving an incomplete grade at the end of spring or summer terms must complete all conditions by no later than the eighth week of fall semester. The instructor will complete a grade change form once the course work is completed. If the student fails to complete the course work within the agreed schedule, the incomplete (I) grade will automatically change to an F.

Academic Integrity - Students are expected to behave as responsible members of the college community and to be honest and ethical in their academic work. Activities of academic dishonesty corrupt the process of acquiring the knowledge and developing the skills necessary for success in any profession; such activities are considered a violation of the student code of conduct and are therefore prohibited. Students are responsible for understanding and abiding by the college's Academic Integrity policy and definition of academic dishonesty (College Policy section of Student Handbook) as well as course and faculty specific standards and expectations.

Cases involving academic dishonesty are handled within the academic division responsible for that course. Faculty and/or the division deans have the authority to issue a sanction up to a grade of zero for any assignment in which academic misconduct has occurred. In serious or repetitive incidences, the case will be referred to the Academic Incident Hearing Panel (AIHP) for further action. Such action may include issuing a failing grade for the course, probation, suspension, or expulsion.

Children in Classes - Children are not allowed in classes without the prior approval of the instructor. No children are allowed in lab classrooms or lab sessions. If permission is granted to bring a child into a class, it is the parent's responsibility to see that the child in no way disturbs other students or the class in general. Even after permission is granted, the instructor always has the right to ask a parent and child to leave a class if any kind of disruption takes place. Individuals who bring children to the college for any reason are expected to supervise them at all times.

Student Change of Information - Students are expected to keep their name, address, phone number and program major current to allow College faculty and staff to communicate with and appropriately advise them. You may update this information with one of the following offices: Records and Registration, Rhodes Hall, Room 220, 937-328-6015; Business and Applied Technologies, Brinkman Center, Room 201, 937-328-6037; Greene Center, Student Services, Room 202, 937-429-8819; or at the Bellefontaine campus, Admissions Office, 937-328-6484

Student Username/Login ID and Password - Students are provided a username/login ID and password to access the College's network, Student Portal (myClarkState), WebAdvisor (used to register for classes or check grades) and online and traditional class shells. The username/login ID consists of the first five letters of your last name followed by your first initial followed by four assigned digits. (If your last name is less than five characters, use your entire last name, first initial, four assigned digits.) Do not include any spaces, special characters, or capital letters. Your student identification number can be found on your printed class schedule.

As a new student your initial password for all systems is your 7-digit student identification number, which can be found on your printed class schedule. This password should be changed when you initially log-in and on a regular basis. Changing it in one place changes

it for the others as well.

Responsible Use of Technology - Engaging in any activity that violates or is strictly prohibited by Clark State's Use Policy, can result in the immediate loss of access privileges. If such activities also violate the College policy or local, state or federal laws, violators may be referred to the appropriate College authority or law enforcement agency for resolution. Such cases may result in suspension from the College as well as prosecution by law enforcement agencies.

With the evolving nature of resources, Clark State's Use Policy may be amended from time to time. These changes will be made available via the College's website as well as in the computing services department. It is the responsibility of each individual who uses the technology resources of the College to be familiar with and abide by all current operational policies.

The use of any technology resource of the College implies acceptance of all current operational policies.

Emergency Closing - In the unusual event the College closes or delays for inclement weather or any other emergency, all available information will be communicated through Eagle Alerts, Clark State Website and myClarkState Portal, Clark State Facebook, Clark State Twitter, Leffel Lane marquee, the radio and television stations listed on the Emergency Closings area of myClarkState Portal, and on the following web site: www.cancellations.com. The announcement will be made as early as possible, generally beginning at 6:00 A.M. for day classes and 1:00pm for evening classes.

When the College closes, the Greene Center campus, the Bellefontaine campus (at Ohio Hi-Point Career Center), as well as classes held at any other location (Urbana University, Greene County Career Center, Miami Valley CTC and Springfield-Clark CTC) will be cancelled. If Urbana University or any of the Career Centers close (and Clark State remains open), classes at those locations will be cancelled.

In the event of a delay, class starting times will not be altered. Classes scheduled during the delay period will not meet. Classes scheduled after the College has reopened will be held at their usual times. There will be no abbreviated class sessions. Buildings will open one hour prior to the start of classes.

Students are expected to attend all class sessions. When the College remains open during inclement weather and you cannot attend class, please notify your instructor. Students will still be responsible for any missed class activities or assignments. It is up to the individual instructor as to any accommodations made with students when classes are missed. (See also *Children in Classes Policy*).

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Campus Safety - The safety and security of faculty, staff, and students is a top priority at Clark State Community College. A safe environment is a necessary precursor to active learning. If there is ANY threat of immediate harm, call 911 (from a campus phone, dial 9-911). If you believe you are the victim of (or a witness to) sexual harassment, notify any Clark State faculty or staff. The Counseling Center (937-328-7961) offers confidential counseling. If you are the victim of sexual assault, call 911, approach any Clark State faculty or staff, or contact the Counseling Center (937-328-7961). If you witness any threatening behavior that makes you uncomfortable, notify the Behavioral Intervention Team (937-328-6065). If you are depressed or have thoughts of suicide, please know that you are not alone. The Counseling Center (937-328-7961) is always ready to help.

If you identify fire conditions:

- RACE: Rescue, Alarm, Contain, Extinguish
- Know where the nearest fire extinguisher is located (find one, today).
- Fire extinguisher use: PASS: Pull, Aim, Squeeze, Sweep
- Take time to look at the suggested evacuation routes posted in each room.

If you find someone apparently unresponsive, retrieve and apply an Automated External Defibrillator (AED). Find the nearest AED, today.

If you identify someone in need of medical aid, consider calling 911.

- Know where Clark State First Aid kits are located (see the Crisis REsponse Manual on the Clark State portal).
- Visit the Leffel Lane Health Clinic, ASC 210.

If you work in a lab with chemicals:

- Know how to access the appropriate Personal Protective Equipment (PPE).
- Know where the Safety Data Sheets are posted.
- In case of tornado, know the designated safe areas in the building you are in.
- In case of evacuation, determine if any special needs occupants need assistance.
- In case of a shooter on campus, follow these simple rules:
RUN, HIDE, FIGHT
<https://www.youtube.com/watch?v=5VcSwejU2D0>