

CRN 21243

Spring 2015

Course Syllabus for SUR-2390 Introduction to GIS

Course Description: *From the Valencia Catalog:*

This course covers the application of Geographic Information Systems to a variety of professional, industry and business uses. It also provides students with an opportunity to gain hands-on experience in utilizing the application software currently in use in this region.

Class Meetings: Building 9 Room 207, 1:30 PM – 5:10 PM, Friday, 14 weeks.

Text: **Required:** **GETTING TO KNOW ArcGIS DESKTOP**, Third Edition for ArcGIS 10.1, By Michael Law & Amy Collins

Materials Required: MINIMUM: **4 GIG Thumb Drive dedicated for this class only.** We will need to set up a file structure on the drive so you will be able to work on projects at Valencia and home.

Instructor Information:

Name: Sandra Bowling
Office: Building 9, Room 223; Mailbox in 9-140F; Mail Code 4-41
Phone: (407) 582-1302
Email: sbowling6@valenciacollege.edu
Office Hours: Specific hours posted on office door. Appointments may be made at mutually convenient times.
Virtual Hours: **Contact me via Blackboard/ Email**

Instructional

Methods: Knowledge of BlackBoard is necessary to be successful in this course; if you need assistance, please contact me. This course is a combined lecture and lab course; individual, as well as group work, is required.

Student Performance Assessment:

Grading Evaluation and Performance Assessment:

Your final average will be valued according to the following grading scale:

Evaluation / Assessments		
Homework	25%	90 - 100 % = A
Quizzes	30%	80 - 89 % = B
Projects	25%	70 - 79 % = C
Tests (3)	20%	60 - 69 % = D
Total	100 %	59 - 0 % = F

Class Room Policies, Absences and Make -up Work:

Special Rules: Use of cell phones or laptops is not allowed once class has started. Cell phones will not be allowed on Quizzes or Test.

Disclaimer: Changes in the syllabus and/or schedule may be made at any time by announcement from the instructor.

No-Show Procedure:

Any student who does not attend class **prior to the start of the no-show reporting period for the part of term of this course** will be withdrawn by the instructor as a no-show. This will count as an attempt in the class, and students will be liable for tuition. If your plans have changed and you will not be attending this class, please withdraw yourself through your Atlas account during the drop period for this part of term.

Classroom Policies Attendance:

Classroom attendance and punctuality is vital to academic success. If you miss a class, you need to contact a classmate to get the notes you missed. Students who do not maintain regular attendance will be withdrawn by the professor, unless other arrangements have been made with the professor. Missing the equivalent of more than 3 weeks of classes for any reason, other **than absences excused in accordance with Valencia's policies, is excessive and a basis for withdrawal.** Being 15 minutes late for class or leaving prior to the end of class will count as an absence. It is the responsibility of the student to find out what was covered if you miss class.

Withdrawal:

Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), a student who withdraws from class before the established deadline for a particular term will receive a grade of "W". A student is not permitted to withdraw after the withdrawal deadline. **See Important Dates below for the Withdrawal Deadline for your part of term** A student who is withdrawn by faculty for violation of the class attendance policy will receive a grade of "W". Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of "F". For a complete policy and procedure overview on Valencia Policy 6Hx28:4-07, please go to: <http://valenciacollege.edu/generalcounsel/policy/> .

Important Dates:

Spring Term: Terms begin January 12. Drop/Refund Deadline 11:59 p.m. **January 20.** No Show reporting period **January 21 -30. Withdrawal deadline for W grade is 11:59 p.m. March 27.** Final Exams - **April 27 - May 3.** See final exam schedule at <http://valenciacollege.edu/calendar/FinalExam.cfm> for exam date and time.

Credit Classes Do Not Meet: January 19 – MLK Day, February 13 – Learning Day, March 9-15 Spring Break

Make-up Policy:

Assignments, quizzes and exams will be allowed in cases of documented student emergencies and will be graded with a lower percentage every week that passes and is overdue (-10% weekly). For student emergencies, it is the student's responsibility to contact the instructor and provide documentation within one week unless special arrangements have been made previously.

Course Outline for SUR-2390-21243 Spring 2015

Date	Topic / Reading	Homework / Project	Due Date Homework /Project
1/16 Class 1	Syllabus Review & Course Requirement Chapter 1: Introducing GIS Chapter 2: Introducing ArcGIS	(Terms & Questions) Project 1	1/23
1/23 Class 2	Chapter 3: Getting started with maps and data Chapter 4: Interacting with data	3a, 3b, 3c, 3d 4a, 4b, 4c Project 2	1/30
1/30 Class 3	Chapter 5: Exploring online resources Chapter 6: Working with coordinate systems and projections	5a, 5b, 5c 6a, 6b, 6c	2/6
2/6 Class 4	Chapter 7: Symbolizing Features	7a, 7b, 7c, 7d Project 3	2/13
2/13	No Class		
2/20 Class 5	Chapter 8: Classifying features Chapter 9: Labeling features	8a, 8b, 8c 9a, 9b, 9c, 9d Project 4	2/27
2/27 Class 6	Chapter 10: Making maps for presentation Chapter 11: Building Geodatabases	10a, 10b, 10c, 10d 11a, 11b, 11c	3/6
3/6 Class 7	Chapter 12: Creating features Chapter 13: Editing features and attributes	12a, 12b 13a, 13b, 13c Project 5	3/13
3/13	Spring Break		
3/20 Class 8	Chapter 14: Geocoding addresses Chapter 15: Querying data	14a, 14b, 14c 15a, 15b, 15c Project 6	3/27
3/27 Class 9	Chapter 16: Joining and relating data Chapter 17: Selecting features by location	16a, 16b, 16c 17a, 17b	4/3
4/3 Class 10	Chapter 18: Preparing data for analysis Chapter 19: Analyzing spatial data	18a, 18b, 18c, 18d 19a, 19b, 19c, 19d Project 7	4/10
4/10 Class 11	Chapter 20: Analyzing raster data	20a, 20b Project 8	4/17
4/17 Class 12	3D Analysis	Handout	4/25
4/24 Class 13	GIS and Autocad	Project 9	5/1
5/1 Class 14	Final Exam		

Homework will involve:

- Text exercises – creating maps and /or questions
 - Remit these maps as PDFs electronically to Instructor via Flash drive in class
- Project Assignments (Project X)
 - Reviewed in class
 - Remit these maps as PDFs electronically on BlackBoard

Course Learning Outcomes:

This lecture/ is designed for Civil/Surveying Engineering Tech. and Drafting and Design Tech majors.

Drawing scores will be graded on the following criteria

1. Accuracy
Drawings will be checked for accuracy. Geometry must follow drawing instructions and/or dimensions.
2. Technique
Proper methods of map construction and software functionality must be followed at all times.
3. Timeliness
Drawings are to be completed and ready for grading on their due date and time. Late projects or homework will be accepted and will be penalized five (5) points for each week that it is late.
Three (3) weeks or more late will be considered a “0” grade.
4. Continuity
Geometry and Map Presentation must follow consistent and logical standards as instructed.
5. Complexity
Level of skill required to create a map should be sufficient to *challenge your talents*.
6. Periodic Quizzes will be used to assess progress and readiness for tests.

Projects Time Allotment

Drawings and computer skills are a significant part of this course. Drawing time will usually be allotted during the normal class time. Students should realize, however, that classroom lab time may not be sufficient to complete assignments on time. Extra lab will be required to meet your assigned goals. There is an open lab in Building 11, however the lab does not have GIS on computers due to ESRI licensing limitations. Your new text comes with a CD of exercises for the text and a number in the back of the text that allows you to download the ArcGIS program for 180 days of use. Further instructions will be provided in class.

Online Student Assessment of Instruction

As part of our continuing goal to provide the best possible instruction for Valencia College students, the student evaluation of instructor form is now available **online**. On a completely anonymous basis, all students are invited to complete this online form. To do so, go into Atlas, select “My Courses” then select the box at the right that says ‘Assessment Survey’. You will be able to submit one assessment form per class. After that, the form will no longer be available to you. To ensure that this process does not affect your grade, the **results are not shown to the instructor until after grades are submitted**. Please set aside some time toward the end of the semester to complete the assessment. By doing so, you will assist the instructor in assessing the effectiveness of his/her teaching methods and techniques for subsequent semesters. Thank you for your feedback.

Student Core Competencies

The faculty of Valencia College have established four Core Competencies that describe the learning outcomes for a Valencia graduate. They are: THINK, VALUE, COMMUNICATE, ACT. These general competencies can be applied in many contexts and must be developed over a lifetime. They specify how learning can be expressed and assessed in practice. They enable students and faculty to set learning goals and assess learning within and across the many disciplines of human inquiry. Use the descriptions and examples of academic work for each to measure your own learning outcomes. Samples of the academic work are great additions to your Learning Portfolio. For further information on student core competencies please go to www.valenciacollege.edu/competencies

Valencia College Core Competencies

“The faculty of Valencia College has identified four core competencies that define the learning outcomes for a successful Valencia graduate. These competencies are at the heart of the Valencia experience and provide the context for learning and assessment at Valencia College. You will be given opportunities to develop and practice these competencies in this class. The four competencies are:

THINK = Think clearly, critically, creatively; analyze, synthesize, integrate and evaluate in many domains of human inquiry.

- a) you will analyze data and scientific principles as they pertain to technical applications
- b) you will employ facts, formulas and procedures in lecture
- c) you will discover and understand how mathematics is important in various fields and in disciplines other than in engineering, drafting, construction management and surveying.
- d) you will be able to draw well supported conclusions about the importance of survey in your daily life and in your career
- e) you will be able to revise conclusions in light of new observations and interpretations

VALUE = Make reasoned judgments and responsible commitments.

- a) you will be able to compare personal, ethical, and scientific values in
- b) you will be able to see the value of the time commitment needed to succeed.

COMMUNICATE = Communicate with different audiences using varied means.

- a) you will be able to practice written communication skills
- b) you will be able to verbally communicate to fellow students and teachers using professional, scientific language during lectures

ACT = Act purposefully, effectively and responsibly.

- a) you will be able to manage your time and activities to achieve your academic goals
- b) you will meet deadlines
- c) you will apply the knowledge you learn to your career goals

Expected Student Conduct

Valencia College is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class. Violation of any classroom or Valencia’s rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from class, disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook.

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, ext. 1523).

Disclaimer

“The course outline and syllabus are subject to change as needed; changes will be announced in class by using ATLAS email or BlackBoard, etc. Your continued participation in this course after the drop-add deadline period constitutes an agreement with and an acceptance of the conditions presented in this syllabus.”

Attendance and Tardy Policy and Expectations

During each lecture, a roster will be provided for you to sign; if you are late to class, it is your responsibility to add your signature to the roster. Missing signatures are viewed as absences; leaving early from class, without professor approval, will be counted as an absence. More than one absence has proven, in the past, to be a sign that your grade will be substantially less than you may have hoped for and will result in the loss of field exercise points.

Additional Information on the Withdrawal Deadline and Policy

Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals) a student who withdraws from class before the **withdrawal deadline** will receive a grade of “W.” A student is not permitted to withdraw from this class after the withdrawal deadline; if you remain in the class after the withdrawal deadline, you can only receive a grade of A, B, C, D, F or I. An I grade will only be assigned under extraordinary circumstances that occur near the end of the semester. If you receive an I, the work missed must be made up during the following semester, at which time you will get an A, B,C,D or F. Failure to make up the work during the following semester will result in you getting a grade of F in the course. The professor will not withdraw any student for any reason; it is the responsibility of the student to withdraw themselves before the withdrawal deadline and to be aware of the date of the withdrawal deadline. Any student who withdraws from this class during a third or subsequent attempt in this course will be assigned a grade of “F.”

Students on financial aid should consult an advisor or a counselor before withdrawing from a course; there may be financial aid implications to the student which he or she must know about to make an informed decision before withdrawing from a course. Students with some scholarships who withdraw or are withdrawn from a class must pay the college for the cost of the class. Other scholarship sponsors may also require repayment.

For a complete policy and procedure overview on Valencia Policy 4-07 please go to:

http://valenciacollege.edu/generalcounsel/policy/default.cfm?policyID=75&volumeID_1=4&navst=0

ADDITIONAL CLASSROOM INFORMATION

Security Statement

We want to reassure you that our security officers are here around the clock to ensure the safety and security of the campus community. It's important to remain alert and aware of your surroundings, especially during the early morning or evening hours. Remember that you can always call security for an escort if you feel uncomfortable walking alone on campus. White security phones can also be found in many of our buildings; simply pick up the phone and security will answer.

Finally, report any suspicious persons to West Campus Security at 407-582-1000, 407-582-1030 (after-hours number) or by using the yellow emergency call boxes located on light poles in the parking lots and along walkways.

Faculty/Student Communication

“Valencia College is committed to providing each student a quality educational experience. Faculty members have set high standards of instruction for themselves and for you. If you have a problem in a class, your first step is to talk to your instructor. If you are still dissatisfied, you may talk with the academic dean of the division for your class. We will work together to resolve any issues that arise.”

- During non-classroom hours, you can talk to me one half hour before and after class or I can be reached by email at sbowling6@valenciacollege.edu .
- I read my email every day and you will receive a response to your emails within 24-36 hours.

Academic Honesty Statement

“Each student is required to follow Valencia policy regarding academic honesty. All work submitted by students is expected to be the result of the student's individual thoughts, research, and self-expression unless the assignment specifically states ‘group project.’”

Any student discovered to be cheating on an exam will receive an F for that exam.

No VC property may be removed from the lab.

Classroom Rules of Student Behavior

College policy prohibits children from attending lectures or labs; please, do not violate this policy.

Proper classroom etiquette is required for you to attend this class; please do not create distractions while the professor is lecturing. More than one warning for improper classroom behavior, following a referral to the academic dean or the calling of security, will be grounds to be dropped from the course without a refund.

Additional Classroom Policies

Beepers or cell phones which emit audible tones should be **turned off or to vibrate** during periods when lectures are given in the lecture or the lab. Please, do not use your phone for text messaging during lectures; text messaging and phone calls can be completed outside the lecture room. The second time a student fails to comply with this policy will result in a referral to the academic dean; a warning after your meeting with the academic dean will be grounds to be dropped from the course without a refund.

Under no circumstances will your test scores, total points or final grades be discussed on the telephone. FERPA rights to privacy prevent the divulging of scores or related materials by that means. Scores will only be given face-to-face with each student or by accessing your Atlas account.

Baycare Behavioral Health's Student Assistance Program

*"Valencia is committed to making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help that may assist them with psychological issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. Students have 24 hour unlimited access to the **Baycare Behavioral Health's confidential student assistance program** phone counseling services by calling **(800) 878-5470**. Three free confidential face-to-face counseling sessions are also available to students."*

Students with Disabilities Information:

"Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class; accommodations will not be applied retroactively. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities."

West Campus SSB, Rm. 102 Phone: 407-582-1523 Fax: 407-582-1326

College Catalog/Student Handbook/Policy Manual

- A full description of all College policies can be found in the College Catalog at <http://www.valenciacollege.edu/catalog/>
- The Student Handbook can be found at: <http://valenciacollege.edu/studentdev/CampusInformationServices.cfm>
- The Policy Manual can be found at <http://www.valenciacollege.edu/generalcounsel/>
- The college calendar can be found at <http://valenciacollege.edu/calendar/> for important dates.

Support Services

- Valencia College offers a variety of SkillShops: short seminars covering a variety of topics which deal with student success, goals and purpose. To check out Valencia's Skillshop offerings, go to: <http://valenciacollege.edu/studentservices/skillshops.cfm>

Study tips:

"LEARNING IS AN ACTION VERB!! Most students need to do more than just sit through lectures and reread their notes.

Spend 1-2 hour blocks of time EVERY DAY actively writing or discussing concepts to make them a part of your memory.

Use the words you learn often, they will sink in better☺.

Here are some study and classroom management tips that have assisted former students:

- *Attend class daily and don't be tardy. The introduction to each lecture explains the purpose of the entire lecture. Students who follow this rule won't miss important information.*
- *REWRITE YOUR NOTES soon after the lecture; if the instructor permits, tape record lectures and replay to refresh your memory when you rewrite your notes.*
- *Create flash cards with questions you make up from the lecture and lab with answers on the back.*
- *Use mnemonic devices and other games to remember concepts; go to Google images, YouTube and Khan Academy for additional pictures and videos to clarify concepts.*
- *Make lists of confusing topics from your studying and ask questions.*

- *Take advantage of the professor's office hours.*
- *JOIN A STUDY GROUP and predict what questions the professor could ask on the test.*
- *Get the telephone number of one or more buddies in case you are absent from a class.*