#### **COURSE SYLLABUS**

# IT 165 Spatial Analysis & 3D Modeling

## This syllabus is not considered a legal document and is subject to change.

Course Number, Title, CRN, Section: IT-165 Spatial Analysis & 3D Modeling CRN 3359, Section 201

Semester, Year, Day, Time, and Location: Spring 2016, Tuesday & Thursday 11:00-12:15, Room #218

**Instructor Name:** 

Office: Room 221

**Telephone:** 304-710-3405 **E-mail:** clickm@mctc.edu

Office Hours: MW 9:00-9:30, 11:00-12:30

TR 10:00-11:00, 12:30-1:30

available through Blackboard & Starfish

<u>Course Description, Credits, and Prerequisite(s):</u> This course is designed to introduce the spatial problem solving aspect of GIS. This course will focus on data analysis and presentation while using skills and geospatial data to build "big picture" maps. Prerequisite is IT-160.

#### **Required Textbook & Materials:**

David W. Allen, GIS Tutorial 2 Spatial Analysis workbook for ArcGIS ISBN 978-1589483378

<u>Required Materials:</u> Textbook, notebook for lecture notes, logbook, and external storage device for homework assignments and test back-up

#### **Computer Requirement:**

Each student must have an Email and 942 account with Mountwest (MCTC) to login to Blackboard. If, at any time during the semester, you experience trouble with your MCTC computer account it is <u>your</u> responsibility to resolve the problem by calling the Help Desk (304) 710.3470. Students must have access to sufficient hardware and software components throughout the semester for this course.

#### **Learning Outcomes:**

After successfully completing this course, the student will be able to do the following:

- 1. Master basic Geographic Information System, spatial analyst and 3D analyst extensions
- 2. Master dynamic GIS desktop spatial analysis & processing techniques to include information retrieval, data relationships and spatial analysis
- 3. Master the creation of : quality presentations, maps, charts and images
- 4. Master how to location and evaluation of GIS data
- 5. Use spatially derived data for use in a Geographic Information System.

6. Master at a user-level Geographic Information System software to perform related step-bystep GIS Spatial analysis and presentation tasks

## **General Education Learning Outcomes:**

Learning outcome 2 embeds the general education learning outcome <u>apply mathematics for problem solving activities</u>.

Learning outcomes 2, 6 and 7 embed the general education learning outcome <u>use critical thinking</u> skills.

Learning outcomes 1-8 embed the general education learning outcome <u>utilize technology</u> <u>competently</u>.

**Assessment:** Your final grade will be based on textbook exercises, class quizzes, homework assignments, class participation, and a mid-term and final exam. Total points available and due dates will be discussed in class. Any evidence of cheating will be subject to the penalties for academic dishonesty.

**Evaluation/Grading:** Projects and exams will be graded using the following scale:

90-100 A

80-89 B

70-79 C

60-69 D

59 and below F

#### **Attendance Policy and Make-up Policy:**

In this class there is zero tolerance for continued unexcused absences, tardiness, late work, and/or disrespect. Any student having three unexcused absences will have his/her final grade lowered one letter grade. Any student having six unexcused absences will have his/her final grade lowered two letter grades. Any student with more than six unexcused absences will fail the course for the semester. An excused absence will consist of a medical doctor's dated excuse or a proven death in the immediate family. Work missed with an excused absence must be made up within three days of the return to class. Exams missed during an excused absence must be taken within one week of the student's return to class; exams missed during an unexcused absence will be recorded as zero. If a student must be absent, it is his/her responsibility to do any work assigned before returning to class.

#### **Class Procedures:**

It is the student's responsibility to know what work is assigned, complete the work as directed, and turn the work in when due. Students are expected to arrive in class on time each meeting. Tardiness is not acceptable. Students must arrive to each class meeting prepared with their textbook, flash drive, and logbook. Assigned tutorials must be read before entering class. When a

project is due, it is the student's responsibility to turn the assignment in to the instructor. Projects, tutorials, and assignments are due one week after they are assigned. Late projects will be deducted 10 points. Projects that are over a week late will not be accepted. It is important for students to keep your assignments current or you will be unable to complete the projects. In the event there is time in class for you to work on your assignments or projects you are expected to complete work during this time. Time given to work on assignments DOES NOT mean that you are free to leave. You are expected to remain in the class room for the duration of the class or until you are dismissed by the instructor.

#### **Academic Dishonesty:**

Plagiarism and cheating are serious offenses and may be punished by failure on assignment, project, exam or failure in course.

## **Important Dates:**

Thursday, February 18	Last day to drop a First Eight Week Course
Thursday, Mar. 10	Mid-Semester, First Eight Week Courses end
Thursday, Mar. 10	Application for May Graduation Due
Monday, Mar. 14	Second Eight Week Courses begin
Monday, Mar. 14 (Noon)	Mid-Semester grades due
Monday, Mar. 21 - Mar. 27	Spring Break (Classes Dismissed)
Thursday, Mar. 24	Last day to drop a full semester individual semester course
Monday, Mar. 28 – May 5	Complete Withdrawals Only
Monday, Mar. 28 – Mar. 31	Advanced registration for summer classes for currently enrolled students
Thursday, April 14	Last day to drop a Second Eight Week Course
Thursday, May 5	Last class day—Last Day to Completely Withdraw for Spring Semester
Monday, May 9 - May 12	Final Exams
Thursday, May 12	Graduation

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Deadline for submitting final grades

# **Spring 2016 Final Examination Schedule**

Exam	Monday	Tuesday	Wednesday	Thursday
Hour	May 9	May 10	May 11	May 12
9:00 A.M. TILL 11:00 A.M.	CLASSES MEETING AT 8:00 MW	CLASSES MEETING AT 9:00 or 9:30 TR	CLASSES MEETING AT 9:00, 9:30 or 10:00 MW	CLASSES MEETING AT 8:00 TR
11:30 A.M.	CLASSES	CLASSES	CLASSES	CLASSES
TILL	MEETING AT	MEETING AT	MEETING AT	MEETING AT
1:30 P.M.	11:00 MW	12:30 TR	12:30 MW	11:00 TR
2:00 P.M.	CLASSES	CLASSES	CLASSES	CLASSES
TILL	MEETING AT	MEETING AT	MEETING AT	MEETING AT
4:00 P.M.	2:00 MW	3:30 TR	3:30 MW	2:00 TR

**NOTE:** All classes meeting at 4:00 p.m. and after on Monday – Wednesday that are not listed above will be examined in two-hour time blocks at the first regularly scheduled class meeting during the above examination period. Classes meeting at or after 4:00 p.m. only on Thursday, will be held on Thursday April 28 at the regular scheduled meeting time. Please see your instructor for the day your exam will be given. If the two-hour time allowance results in a conflict in exam times, it is the student's responsibility to notify the professor of the later course and to reschedule the later exam.

Rescheduled exams must be concluded by Thursday, May 12, at 4:00 p.m.

#### **GENERAL EDUCATION PHILOSOPHY:**

The general education philosophy at MCTC seeks to provide students with intellectual and critical skills for lifelong learning needed to meet the challenges of a diversified world. Students will be prepared to

- Communicate effectively using written and oral skills.
- Apply mathematics and basic scientific concepts for problem solving activities.
- Utilize technology competently.
- Use critical thinking skills.
- Develop an awareness of ethical behavior.
- Recognize the richness of diversity.

#### **Additional Policies Affecting Students:**

See Mountwest Catalog at www.mctc.edu

- · Academic Honesty refer to the Mountwest Catalog
- Disabled Student Services If you have a disability and desire accommodation, please contact the Student Services Office and speak to one of the counselors for Student Disabilities Services. Please contact: Jill Kelley, <a href="mailto:kelleyj@mctc.edu">kelleyj@mctc.edu</a>, <a href="mailto:304-710-3368">304-710-3368</a>, Student Services Room 101 J or Debbie Spencer, <a href="mailto:spencerd@mctc.edu">spencerd@mctc.edu</a>, <a href="mailto:304-710-3369">304-710-3369</a>, Student Services Room 101 M
- · Financial Aid Information ofa@mctc.edu (Check MyMCTC for status)
- · Student Information at myMCTC (for which you are responsible as a tudent) www.mctc.edu
- Inclement Weather Procedures www.mctc.edu/safety/weather-related-closings/

Procedure for Students with Disabilities: Mountwest Community and Technical College is committed to equal opportunity in education for all students, including those with physical, learning, and psychological disabilities. It is the responsibility of students with disabilities to contact Jill Kelley at 304-710-3368 or Debbie Spencer at 304-710-3369, in the Office of Student Services and provide documentation of their disability. Following this, a letter will be sent to each of the student's instructors outlining the academic adjustments and/or auxiliary aids he/she will need to ensure equality in classroom experiences, outside assignments, testing and grading. The instructor and student will meet to discuss how the adjustments and/or auxiliary aids requested will be provided. For more information, please contact Mountwest Community and Technical College Office of Student Services; phone 304-710-3141.

#### **Please contact:**

Jill Kelley, kelleyj@mctc.edu, 304 710-3368, Student Services Room 101 J or

Debbie Spencer, spencerd@mctc.edu, 304 710-3369, Student Services Room 101 M

#### **Additional Notes:**

- \* Due to liability issues, students who are dropped for nonpayment may not remain in or attend class. A student will be asked to leave class and may not return until the Registrar's office receives approval for reinstatement from the Cashier's office. To receive approval for reinstatement, students must go to the Cashier's office on the first floor of the Mountwest building and either pay their bill or sign a payment plan. Once an arrangement has been made with the Cashier's office, students will take verification to the Registrar's office. The Registrar will re-enroll the student into the dropped course, unless the class is already full. If the class is full, the instructor will receive a call or e-mail notification from the Registrar requesting permission to overload the class. If the instructor denies an overload, a student will not be allowed to re-enroll and must work with the advising center to determine other course options.
- \* Periodic attendance reports will be submitted by your instructor to the Dean of Student Services. Absences from class may result in the student's loss of some or all financial aid.

# IT 165 Tentative Schedule (Subject to Change)

Week	Dates	In Class Discussion	Tutorials	*Exercise	**Projects	Quiz
1	Tue., Jan. 19	Intro, Syllabus				
	Thu., Jan. 21	Chapter 1	1-1, 1-2, 1-3	1-1, 1-2, 1-3		
2	Tue., Jan. 26					
	Thu., Jan. 28	Chapter 2	2-1, 2-2, 2-3, 2-4	2-1, 2-2, 2-3, 2-4	1	
3	Tue., Feb. 2					
	Thu., Feb. 4	Chapter 3	3-1, 3-2, 3-3	3-1, 3-2, 3-3	2	
4	Tue., Feb. 9					
	Thu., Feb. 11	Chapter 4	4-1, 4-2	4-1, 4-2		
5	Tue., Feb. 16					
	Thu., Feb. 18	Chapter 5	5-1, 5-2, 5-3, 5-4	5-1, 5-2, 5-3, 5-4	3	
6	Tue., Feb. 23	Chapter 5	5-5, 5-6, 5-7,	5-5, 5-6, 5-7,		
	Thu., Feb. 25		5-8, 5-9	5-8, 5-9		
7	Tue., Mar. 1	Chapter 6	6-1, 6-2, 6-3	6-1, 6-2, 6-3	4	
	Thu., Mar. 3					
8	Tue., Mar. 8	Midterm Exam				
	Thu., Mar. 10	Chapter 7	7-1, 7-2, 7-3	7-1, 7-2, 7-3		
9	Tue., Mar. 15	Chapter 7	7-4, 7-5	7-4, 7-5		
	Thu., Mar. 17	Chapter 8	8-1, 8-2, 8-3, 8-4	8-1, 8-2, 8-3, 8-4		
10	Tue., Mar. 22	NO CLASS				
	Thu., Mar. 24	SPRING BREAK				
11	Tue., Mar. 29	Chapter 9	9-1, 9-2		5	
	Thu., Mar. 31	Lab Work				
12	Tue., April 5	3D Modeling				
	Thu., April 7	3D Modeling				

13	Tue., April 12	3D Modeling		6	
	Thu., April 14	3D Modeling			
14	Tue., April 19	3D Modeling			
	Thu., April 21	3D Modeling			
15	Tue., April 26	3D Modeling		7	
	Thu., April 28	3D Modeling			
16	Tue., May 3	3D Modeling			
	Thu., May 5	Final Exam			

A free software trial of ArcMap is included with your textbook. You are encouraged to download this trial onto your home computer so that you can work on your assignments and projects from home. If you do not have the software on your home computer then you are expected to work on tutorials, assignments and projects in room 218 during the times that the room is available.

Mountwest is part of a grant funded by the Department of Labor, Employment & Training Administration's Trade Adjustment Act Community & Technical College and Career Training (TAACCCT). "This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership."

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