Course Number, Title, CRN, Section: IT-160 GIS Concepts CRN 3358, Section 201

Semester, Year, Day, Time, Location: Spring 2016, M-W 9:30-10:45, Room 218

Instructor Name: Megan Click Office: Room 221 Telephone: 304.710.3405 E-mail: <u>clickm@mctc.edu</u> 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</u>: This course is designed to introduce you to the core functionality of ArcGIS for Desktop software: how to make maps, carry out spatial analysis, and build and edit spatial databases in the context of realistic projects.

Credits: 3 Credit Hours

Prerequisite(s): None

### **Required Textbook**(s):

Michael Law & Amy Collins, Getting to Know ArcGIS Desktop Third Addition. ISBN 9781589483088

### **<u>Required Materials:</u>** Thumb Drive, Logbook

### **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. An external storage device is required (Jump drive, external hard drive, etc.)

### **Learning Outcomes:**

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

- 1. Demonstrate a working knowledge of the basics of GIS & geospatial sciences.
- 2. Describe the fundamental concepts & theories of GIS
- 3. Locate geographic data for use in GIS
- 4. Create a final project utilizing GIS knowledge.
- 5. Demonstrate GIS knowledge via oral presentations
- 6. Produce a final map utilizing proper cartographic theory & skills.

### **General Education Learning Outcomes:**

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

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

Learning outcomes 1-6 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, projects 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:** Assignments, Projects, Presentations, Quizzes and Exams will be graded using the following scale:

90-100 A					
80-89	В				
70-79	С				
60-69	D				
59 and	below F				

Class Attendance and Participation	10%
ESRI Certificates	10%
Assignments	15%
Quizzes	15%
Projects and Final Presentation	25%
Midterm and Final Exams	25%

### 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 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.

## **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 <u>www.mctc.edu</u>
- 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, <u>kelleyj@mctc.edu</u>, <u>304 710-3368</u>, Student Services Room 101 J or Debbie Spencer, <u>spencerd@mctc.edu</u>, <u>304 710-3369</u>, Student Services Room 101 M
- · Financial Aid Information <u>ofa@mctc.edu</u> (Check MyMCTC for status)
- Student Information at myMCTC (for which you are responsible as a tudent) <u>www.mctc.edu</u>
- · Inclement Weather Procedures <u>www.mctc.edu/safety/weather-related-closings/</u>

**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, <u>kelleyj@mctc.edu</u>, 304 710-3368, Student Services Room 101 J or Debbie Spencer, <u>spencerd@mctc.edu</u>, 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.

Thursday, February 18	Last day to drop a First Eight Week Course
Thursday, March 10	Mid-Semester, First Eight Week Courses end
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Thursday, March 10	Application for May Graduation Due
Monday, March 14	Second Eight Week Courses begin
Monday, March 14 (Noon)	Mid-Semester grades due
Monday, March 21 - March 27	Spring Break (Classes Dismissed)
Thursday, March 24	Last day to drop a full semester individual
	semester course
Monday, March 28 – May 5	Complete Withdrawals Only
Monday, March 28 – March 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

## **Important Dates:**

#### SPRING 2016 FINAL EXAM SCHEDULE

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

DEADLINE FOR ONLINE SUBMISSION OF GRADES is MONDAY, May 16, AT 4:00 PM.

Week	Dates	In Class Discussion	Tutorials	*Assignm	**Projects	Quiz	ESRI Certificates
				ents			
1	Mon., Jan. 18	No class- MLK Day					
	Wed., Jan. 20	Intro, Syllabus,					
2	Mon., Jan. 25	Class Canceled: Snow					
	Wed., Jan. 27	ESRI accounts, Facebook, copy data					"Getting Started with GIS"
3	Mon., Feb. 1	Chapter 1 and 2, Types of Maps	3a-3b	Ch3 P1			
	Wed., Feb. 3	Chapter 3	3c-3d	Ch3 P2			
4	Mon., Feb. 8	Chapter 4	4a-4c	Ch4			
	Wed., Feb. 10	Chapter 5	5a-5c		1	1	
5	Mon., Feb. 15	Chapter 6	6a-6c	Ch6			"Basics of
							Geographic Coordinate Systems"
	Wed., Feb. 17	Chapter 7: Symbology	7a-7d	Ch7	2	2	Systems

# **CLASS SCHEDULE**

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6	Mon., Feb. 22	Chapter 8: Classifying Features	8a-8c	Ch8			
	Wed., Feb. 24	Chapter 9: Labeling	9a-9d	Ch9	3	3	
7	Mon., Feb. 29	Chapter 10: Making Maps	10a-10d	Ch10			
	Wed., March 2	Chapter 11: Geodatabases	11a-11c				
8	Mon., March 7	Midterm Exam					
	Wed., March 9	Chapter 12: Creating Features	12a-12b	Ch12			
9	Mon., March 14	Chapter 13: Editing Features	13a-13c	Ch13	4		"Editing in ArcGIS Desktop"
	Wed., March 16						
10	Mon., March 21	NO CLASS					
	Wed., March 23	SPRING BREAK					
11	Mon., March 28	Chapter 14: Geocoding Chapter 15: Querying	14a-14c	Ch14			
	Wed. March 30	Data	15a-15c	Ch15			
12	Mon., April 4	Chapter 16: Joining & Relating Data	16a-16c	Ch16			
	Wed., April 6	Chapter 17: Selecting Features by Location	17a-17b	Ch17			
13	Mon., April 11	Chapter 18: Preparing Data for Analysis	18a-18d		5		
	Wed., April 13						
14	Mon., April 18	Chapter 19: Analyzing Spatial Data	19a-19d		6	4	
	Wed., April 20	Work on Final Projects & Presentations					
15	Mon., April 25	Work on Final Projects & Presentations			7		

	Wed., April 27	Work on Final Projects & Presentations			
16	Mon., May 2	Final Project Presentations			
	Wed., May 4	Final Exam			

A free software trial of ArcMap comes with your book. 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.

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