

COURSE SYLLABUS
IT 266 Digital Cartography

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Course Number, Title, CRN, Section: IT-266 Digital Cartography CRN 3379, Section 201

Semester, Year, Day, Time, and Location: Spring 2016, MW 12:30-1:45, Room #218

Instructor Name: Mrs. Megan Click

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

Course Description: GIS software encompasses a broad range of applications which involve the use of a combination of digital maps and georeferenced data. GIS software can be sorted into different categories. Numerous systems are available which cover all sectors of geospatial data handling. Desktop GIS can both come in costly software packages available from professional entities such as ESRI or a selection of Open Source software packages available for free provided by entities utilizing general public licensing options. The Open Source Geospatial Foundation (OSGeo), is a non-profit non-government organization whose mission is to support and promote the collaborative development of open geospatial technologies and data. Google Maps is a web mapping service application and technology provided by Google that powers many map-based services, including the Google Maps website, Google Ride Finder, Google Transit and maps embedded on third-party websites via the Google Maps. A related product is Google Earth, a stand-alone program which offers more globe-viewing features, including showing polar areas, these packages are also Open Source. This course will explore available software packages and their uses in the current GIS marketplace.

Credits: 3 Credit Hours

Prerequisite(s): IT-160 & IT-165

Required Textbook:

Cynthia A. Brewer, **Designing Better Maps: A Guide for GIS Users** ISBN:978-1-58948-089-6

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 your 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. Research Open Source software packages and their uses.
2. Compile a list of available GIS data and resources.
3. Utilize various GIS software packages and cross reference.
4. Define a selection of GIS projects which deal with spatial technology utilizing a selection of geospatial programs.
5. Demonstrate GIS knowledge via oral presentations utilizing appropriate software options.
6. Produce a final map utilizing cartographic theory and skills and demonstrate software applications via the web and the use of Open Source software.

General Education Learning Outcomes:

Learning outcome 2 embeds the general education learning outcome apply mathematics for problem solving activities.

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

Learning outcomes 1-6 embed the general education learning outcome utilize technology competently.

Assessment: Your final grade will be based on class quizzes, homework assignments, class participation, and an open book 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:

Mapping Our World Modules	1100 Points
Class Discussions	100 Points
Research Techniques	100 Points
Research Project Proposal	100 Points
Final Project Presentation	100 Points
Final Project	100 Points
TOTAL	1600 Points Available

Grading:

Projects will be graded using the following scale:

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 59 & Below F

Instructor Assignments: You will be assigned a list of research topics to include in your project. Research methodology will be discussed & assigned to each student. This will serve to help reinforce the skills you have learned from the pre-requisite to this course & help you begin to

use GIS independently & apply it to real world experiences & create solutions to current problems in the field.

Final Project Presentation: The final project will be a topic of the students choosing & be due at the end of the semester. It serves to show the student how GIS can be used to solve real-world problems & will bring together all of the skills that the student has learned throughout their time exploring GIS. The student will produce a final map & a short presentation for the class discussing the problem & what way they proposed to solve it using a selection of GIS software options.

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. Assigned tutorials must be read before entering class. All assignments are due at the beginning of the designated class session unless otherwise directed. When an assignment is due, it is the student's responsibility to turn the assignment in to the instructor. Late assignments will not be accepted for full credit. Tardiness is not acceptable. 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.

Discussion Procedures: Students will take turns leading the discussion as outlined in the Syllabus. All students will read the chapter and submit 2-4 questions/comments/portions found interesting to the instructor and discussion leader via email by noon on the Tuesday prior to the Wednesday the discussion is to be held in class. The discussion leader will then compile the questions and use them as a framework to lead the classroom discussion on the designated day.

Reflection Papers: There will be three (3) reflection papers assigned throughout the semester. These papers are your opportunity to review and discuss the various concepts and methods that have been covered in class up to that point. The papers should each be three (3) pages long, double spaced, and can contain any information that you feel has been useful to interesting to you. We will discuss the reflection papers closer to the time of the first one.

Final Project and Paper: Your final project will include a final paper which will contain the details of your project. These should be 4 pages long, double spaced, and written in the scientific research

style; examples will be provided to you. Your project should concern a topic which is relevant and interesting to you. Topics will be explored and discussed in class.

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
Monday, May 16	Deadline for submitting final grades

Spring 2016 Final Examination Schedule

Exam Hour	Monday May 9	Tuesday May 10	Wednesday May 11	Thursday 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	CLASSES MEETING AT 8:00 TR

Exam Hour	Monday May 9	Tuesday May 10	Wednesday May 11	Thursday May 12
			9:00, 9:30 or 10:00 MW	
11:30 A.M. TILL 1:30 P.M.	CLASSES MEETING AT 11:00 MW	CLASSES MEETING AT 12:30 TR	CLASSES MEETING AT 12:30 MW	CLASSES MEETING AT 11:00 TR
2:00 P.M. TILL 4:00 P.M.	CLASSES MEETING AT 2:00 MW	CLASSES MEETING AT 3:30 TR	CLASSES MEETING AT 3:30 MW	CLASSES MEETING AT 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, kellyj@mctc.edu, 304 710-3368, Student Services Room 101 J or Debbie Spencer, spencerd@mctc.edu, 304 710-3369, 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 student) 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, kellyj@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 a

IT-266 TENTATIVE CLASS SCHEDULE (SUBJECT TO CHANGE)

Week	Dates	In Class Discussion	*Assignments	**Projects	Papers
1	Mon., Jan. 18 Wed., Jan. 20	No class- MLK Day Class Orientation: Syllabus & Best Practices	Mapping our World MIL1		
2	Mon., Jan. 25 Wed., Jan. 27	GIS Concepts & GIS Recap Open Source Software	Mapping our World MIL2		

3	Mon., Feb. 1 Wed., Feb. 3	Open Source Software Chapter 1 Discussion: Doug	Mapping our World M2L1	1	
4	Mon., Feb. 8 Wed., Feb. 10	Project & Data Research Chapter 2 Discussion: Robert	Mapping our World M2L2		
5	Mon., Feb. 15 Wed., Feb. 17	Project Proposal Due Chapter 3 Discussion: Michael	Mapping our World M4L1		1
6	Mon., Feb. 22 Wed., Feb. 24	Exploring Online Resources Chapter 4 Discussion: Doug	Mapping our World M5L1	2	
7	Mon., Feb. 29 Wed., March 2	Research & Software Acquisition Chapter 5 Discussion: Robert	Mapping our World M5L2		
8	Mon., March 7 Wed., March 9	Midterm Exam Chapter 6 Discussion: Michael	Mapping our World M6L1		
9	Mon., March 14 Wed., March 16	Research & Software Acquisition Chapter 7 Discussion: Mrs. Click	Mapping our World M6L2	3	2
10	Mon., March 21 Wed., March 23	NO CLASS SPRING BREAK			
11	Mon., March 28 Wed. March 30	Creating & Editing Data Creating & Editing Data	Mapping our World M7L1		
12	Mon., April 4 Wed., April 6	Displaying & Presenting Data Displaying & Presenting Data	Mapping our World M7L2	4	

13	Mon., April 11 Wed., April 13	Project Organization & Final Touches Project Organization & Final Touches			3
14	Mon., April 18 Wed., April 20	Making Maps for Presentation Making Maps for Presentation			
15	Mon., April 25 Wed., April 27	Review, Edits & Presentation Review Edits & Presentation			
16	Mon., May 2 Wed., May 4	Review Final Project & Report Due		5	4

If you do not have the ArcMap 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. The available times are displayed on the white board in the front of the room.

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