Fall 2013 Syllabus: Math for Liberal Arts Math 1180-004 MWF 12:00 - 12:50 PM Room: Bowman-Oddy 1045

Instructor: Dr. David Gajewski
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Course web site: http://math.utoledo.edu/~dgajews/1180
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PREREQUISITES

Math 980 (Intermediate Algebra), Math 1320 (College Algebra), or one of a) ACT Math score of 16 or higher or SAT Math score of 400 or higher, or b) Elementary Algebra placement test score of 8 or higher, or c) College Algebra placement test score of 5 or higher.

REQUIRED MATERIALS

- Access code for *Mathematics all Around* 5th edition, Pirnot, Pearson/Addition Wesley 2010. The access code may be purchased from Pearson (you need a credit card) or through The University of Toledo's bookstore. The bound textbook is recommended, but not required.
- A clicker from the bookstore: Turning Technologies' ResponseCard RF.
- A basic calculator. Must have a square root function. Statistical functions are a plus.

The access code and the clickers are an absolute requirement for this class. You are expected to have them by the beginning of the second week of class. If you do not have them, you will begin to lose points which *cannot be made up*.

TENTATIVE CLASS SCHEDULE / LIST OF TOPICS

The material covered in the course corresponds to material in Chapters 2,4,6,10,11-14 of Mathematics all Around, 5th edition, Pirnot. In general, students will be engaged in the various topics listed below through lectures, interactive computer activities, and group and individual problem solving projects. An emphasis will be placed on problem solving throughout the course. Topics include: Graphs, Sets and Set Operations, Number Theory, Polygons and Symmetry, Voting Problems, Counting Methods, Permutations and Combinations, Probability, and Statistics.

CATALOG DESCRIPTION A general liberal arts course for non-science students designed to acquaint students with the nature of mathematics and applications such as probability, statistics, functions and graphs. Course is not applicable toward the undergraduate mathematics major requirements.

STUDENT LEARNING OBJECTIVES.

The student will be able to use basic graph theory to find Euler and Hamilton circuits. The student will demonstrate proficiency with basic set notation and operations. The student will use set formula and counting formulas to solve problems in counting and probability. The student will be able to factor numbers into primes and use those factorizations to find least common multiples and greatest common divisors. The student will be able to do basic statistical calculations including mean, standard deviation, median and quartiles. The student will be able to detect obvious sources of sample bias and poor methodology in statistically based studies. The student will be able to draw reasonable conclusions about the credibility of statistically based studies given sufficient information.

GRADING POLICY

The categories used for evaluation in this course and the percent weights associated with them are:

Clicker Quizzes (in class)			
On-line Homework			
Written Assignments (group work in class)			
Midterm Exam			
Final Exam	30%		

 Grading Scale

 90-100%
 A

 80-89.9%
 B

 70-79.9%
 C

 60-69.9%
 D

 0-59.9%
 F

A note on the clicker quizzes: While ample time in class will be given to examples and discussion, I will not be going through a full detailed development of the definitions and concepts in class. Instead, you will be expected to read the chapter and view the video lectures included in the online materials before the discussion. At the beginning of the first day a topic is discussed, there will be a quiz designed to assess whether you have done so. These quizzes will be administered be means of clickers, so you will need to bring your clicker to class every day.

ATTENDANCE AND MISSED WORK POLICY

Attendance will be taken daily and will be verified by clicker responses. Make-ups of tests are only given in case of an excused absence, such as a personal emergency (see the University of Toledo Missed Class Policy, I-2- 15). A written excuse, for example, a doctor's note, is required. Written assignments will be done in class. and cannot be made up, however the lowest two written assignment grades will be dropped.

INCOMPLETES, EXTRA CREDIT, ETC.

University and departmental policy stipulate that incompletes will be granted only in cases where a *substantial portion* (usually at least 3/4) of the class has been completed *successfully* and unavoidable circumstances prevent completing the course by the end of the semester. Incompletes are not intended to rescue students who have performed poorly, or those who have not participated in the class. There is no extra credit. You need to keep up with the class, participate in the labs, get the homework done on time and prepare for the exams.

IMPORTANT DATES

The instructor reserves the right to change the content of the course material if he perceives a need due to postponement of class caused by inclement weather, instructor illness, etc., or due to the pace of the course.

ACADEMIC DISHONESTY: Cheating can seriously jeopardize your academic future. Cheating includes but is not limited to:

- Any attempt to access unauthorized forms of information during a test; for example, cheat notes, storing information in electronic devices, texting someone outside the class, copying another students exam sheet.
- Soliciting or allowing someone else to do your homework or written assignments for you, or conversely, doing homework or written assignments for someone else. Getting limited

authorized assistance is OK, and such assistance is available in the tutoring center, from the lab instructors and from the lecturer. Discussing homework with other students is encouraged. Having someone else just do the whole assignment for you is *not OK*.

Any act of academic dishonesty as defined by the University of Toledo policy on academic dishonesty (found at http://www.utoledo.edu/dl/students/dishonesty.html) will result in an F in the course or an F on the item in question, subject to the determination of the instructor.

CLASSROOM RULES AND ETIQUETTE

- Cell phones and earphones need to be turned off and out of sight.
- Laptops need to be put away.
- Cell phones, laptops or any devices capable of connecting to the outside world may not be used as calculators on exams.
- Use of another students clicker to fake attendance when the student is not there is academic dishonesty (cheating) and will be treated as such.
- Do not leave the classroom until the class has ended. If one student gets up and leaves five minutes before the class is over, others will follow. If there is some unusual circumstance that requires you to leave early, speak to me about it at the beginning of class.

NON-DISCRIMINATION POLICY: The University of Toledo is committed to a policy of equal opportunity in education, affirms the values and goals of diversity.

STUDENTS WITH DISABILITIES: The University will make reasonable academic accommodations for students with documented disabilities. Students should contact the Office of Accessibility (Rocket Hall 1820; 419.530.4981; officeofacademicaccess@utoledo.edu) as soon as possible for more information and/or to initiate the process for accessing academic accommodations. For the full policy see: http://www.utoledo.edu/success/academicaccess/sam/index.html

STUDENT PRIVACY: Federal law and university policy prohibits instructors from discussing a student's grades or class performance with anyone outside of university faculty/staff without the student's written and signed consent. This includes parents and spouses. For details, see the Confidentiality of student records (FERPA) section of the University Policy Page at http://www.utoledo.edu/policies/academic/undergraduate/index.html

SOME ADVICE FOR SUCCEEDING IN THIS CLASS

- Attend class regularly and complete your assignments by the due dates.
- Schedule sufficient time to devote to this course outside of class. (est: 6 hours per week)
- Don't hesitate to ask questions, either in class or during my office hours. If you can't make it during my office hours, make an appointment or contact me by email. You can also ask questions via "Ask My Instructor" in MyMathLab.
- Get help at the first sign of confusion. Don't wait.

• Study with fellow students. Take turns explaining the material to each other. Teaching someone else is the best way of learning.

LEARNING RESOURCES

- Free math tutoring on a walk-in basis is available in the Math Learning and Resources Center in the lower level of Carlson Library.
- The Course Compass website has an on-line copy of the textbook, and other learning materials available.

IMPORTANT DATES

- MIDTERM EXAM: Wednesday, October 9, 2013
- FINAL EXAM: Monday, December 9, 2013 12:30 2:30 (NO exceptions!)
- The last day to DROP from Fall Semester is Monday September 2, 2013.
- The last day to WITHDRAW from Fall Semester is Friday, October 25, 2013. Note: Instructors cannot withdraw students from class. Any student who has not withdrawn from class by October 25 will receive a letter grade for the class.

		Monday	Wednesday	Friday
August	Date	19	21	23
	Activity	Orientation	4.1	4.1
	Date	26	28	30
	Activity	4.2	4.2	2.1 & 2.2
September	Date	2	4	6
	Activity	Labor Day	2.1 & 2.2	2.1 & 2.2
	Date	9	11	13
	Activity	2.3	2.3	6.1
	Date	16	18	20
	Activity	6.1	11.1	11.1
	Date	23	25	27
	Activity	11.2	11.2	11.3
October	Date	30	2	4
	Activity	Fall Break	11.3	Midterm Review
	Date	7	9	11
	Activity	Midterm Review	Midterm Exam	12.1 & 12.2
	Date	14	16	18
	Activity	12.1 & 12.2	12.3	12.3
	Date	21	23	25
	Activity	13.1	13.1	13.2
November	Date	28	30	1
	Activity	13.2	13.3	13.3
	Date	4	6	8
	Activity	14.1	14.1	14.2
	Date	11	13	15
	Activity	Veterans Day	14.2	14.3
	Date	18	20	22
	Activity	14.3	14.4	14.4
	Date	25	27	29
	Activity	Statistical Literacy	Thanksgiving	Thanksgiving
December	Date	2	4	6
	Activity	Statistical Literacy	Statistical Literacy	Final Review

TENTATIVE SCHEDULE

Statistical Literacy is not from the text. A supplement will be provided. Two days are allowed for each activity. The first is to be used for examples and discussion. The second is to be used for group activities. A clicker quiz will be given at the beginning of the first of the two days to assess whether you have read the text and watched the videos.