Course Syllabus – Math 245
Mr. Borsum – Winter of 2016

Mr. John Borsum, Section 1500
E-mail: borsumjs@wlac.edu
Monday - Friday – MSA 009
8:00 – 10:05 am (with a 15-minute break at approximately 9:00 am)
Office hours: As needed, immediately after class each day

Welcome to College Algebra! Math 245 is a course that discusses relations, functions and their graphs, matrices, systems of equations, permutations, combinations, probability, sequences and series, and conic sections.

Prerequisite: Math 125 or Math 128 with a grade of "C" or better, or appropriate placement level demonstrated through the WLAC math placement process. *This is absolutely mandatory!*

Text: College Algebra, 8th edition, by Ron Larson and Robert Hostetler.
ISBN13: 978-1-4390-4869-6

Materials: Students should bring a math notebook (with graph paper), pencils, a scientific calculator, and the textbook to class each day. Custom-made graph paper of virtually any type can be developed by logging onto http://incompetech.com/graphpaper/ .

Scientific Calculator: You may use only a scientific calculator. Use of a graphing or cell phone calculator will be considered cheating. You must have your own calculator for quizzes or exams – no sharing and you must show all necessary calculations. You may NOT borrow a calculator, even if the previous user has finished his or her assessment.

Homework: Students should plan to work on math *outside* of class for as many as 4 hours each day. Completing the assigned problems **and reading the upcoming sections** should be done before the next class**.** Since homework is a basic requirement of the course, it is expected that you will *thoroughly* complete the assignments, with a goal of *understanding* each problem. Too often, students have only a surface knowledge of the problems. After completing each assignment, check your answers and score yourself, as if it were a test or quiz.

Attendance: Students are expected to be in class **on time** *every* day and to participate in class activities. Missed in-class activities cannot be made up. College policy states that the instructor may drop a student who has missed more than two class meetings. If you are not maintaining at least a "C" in the course and are absent more than four hours, I will likely exclude you from the class.

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Assessments: There will be four 100-point exams, four 20-point quizzes, and a 140-point cumulative final exam. These assessments may contain free response and/or multiple-choice questions. Your *best three* 100-point exams will be counted. Should you be absent for an exam, it will be the one that doesn't count. Should you miss additional exams, you will receive a score of "0" on those exams. Your *best three* 20-point quizzes will be counted. Should you be absent for a quiz, it will be the one that doesn't count. Should you miss additional quizzes, you will receive a score of "0" on those quizzes. The final exam will count 140 points. Here is a summary:

3 exams count 100 points each:	**300 points**	(poorest score of 4 exams is dropped)
3 quizzes count 20 points each:	**60 points**	(poorest score of 4 quizzes is dropped)
1 final exam counts 150 points:	**140 points**	(the final exam is NEVER dropped)
Total possible:	**500 points**	

Grades: The grading scale will be:

A: 90% - 100%;	B: 80% - 89.8%;	C: 70% – 79.8%;	D: 60% - 69.8%	Fail: below 60%
450 - 500	400 - 449	350 - 399	300 – 349	

Since you are allowed to drop your lowest exam and quiz score, this is fair, even if you score close to the next higher grade. In most cases, the dropping of these scores has already increased your overall score substantially.

Important dates:	**Last day to drop without a "W":**	**Wednesday, January 6**
	Last day to drop with a "W":	**Friday, January 29**
	Final exam:	**Friday, February 5**

If you decide you cannot finish the course with a satisfactory grade, it is *your* responsibility to *withdraw officially*, on or before **Friday, January 29**.

Additional Notes:

- Please abide by the college policy of no food or beverage in class, other than water.
- Please silence cell phones. During any quiz or exam, cell phones must be turned OFF.
- Students are advised to form informal study groups outside of class. Most students find that this enhances success for everyone involved.
- Please make arrangements to have a textbook immediately.

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College-Wide Student Learning Outcomes: Successful students will demonstrate cognitive learning of course material through the synthetic and evaluative levels. They will be able to:

- •Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.
- •Communication: In your math papers and on tests you will be expected to show and explain your work in a clear, well-organized manner.
- •Quantitative Reasoning: Identify, analyze, and solve problems that are quantitative in nature.
- •Apply self-assessment and reflection strategies to learn from mistakes and to seek better methods to solve particular problems.
- •Civic Responsibility: Students are expected to respect classmates as well as the instructor. This includes refraining from disruptive behavior (coming late, leaving early, wandering in and out of class, eating/drinking during class, side conversations, text messaging, etc.) and practicing positive behaviors (cooperation, civility, helpfulness, constructive engagement in class activity).
- •Technical Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.
- •Ethics: All students will maintain the highest standards of academic honesty. You may NOT give or receive help on assessments. You may not turn in another's work as your own. If you are discovered committing any act of academic dishonesty, you will receive no credit for the assessment or assignment AND the case will be referred to the Dean for further disciplinary action.
- •Aesthetics: Mathematicians often speak of a "beautiful" or "elegant" method of solving a problem. We hope you will find aesthetic experiences in your mathematical work.

Mathematics Student Learning Outcomes: Successful students will be able to:

- •Apply quantitative thinking processes using basic mathematical operations to solve common academic, workplace, and family problems. (Theme: mathematical operations)
- •Use mathematical tools essential for analyzing quantitative problems and for producing solutions. (Theme: mathematical tools)
- •Select appropriate math strategies for solving and handling real life problems involving finance, economics, and family issues. (Theme: mathematical problem solving)

Math 245 Student Learning Outcomes: Successful students will be able to:

- •Identify all intercepts
- •Determine the domain and range of a function
- •Use transformations to generate a graph
- •Synthesize information about the transformations to generate a function and solve application problems.

Calendar: I am providing a calendar showing the holiday, drop deadlines, and dates of exams and quizzes. The purpose of homework is to practice for exams. *It is important that you review and understand all example problems in each section.* The course includes a great deal of material, so it is important that you use the homework problems to develop a thorough *understanding* of the mathematics.

Math 245 Calendar – Winter of 2015 – 7th Edition – Mr. Borsum

- The following calendar shows sections to be discussed in class on each meeting day.
- This schedule is subject to change by the instructor.
- Homework on each section should be completed by the following school day.
- Homework will *not* be checked. However, if you have a thorough understanding of the assigned problems in each section, you should find quiz and exam questions to be similar.

Monday	Tuesday	Wednesday	Thursday	Friday
4 Introduction 2.1 (183): 1, 11, 15, 19, 23, 31, 33, 43	**5** 2.2 (197): 1, 13, 25, 37, 41, 47, 52, 53, 67	**6** **Last Day To: Drop without a W File Pass/No Pass** 2.3 (210): 1, 3, 8, 11, 15, 33, 35, 63	**7** 2.4 (220): 19, 23, 27, 43, 45 2.5 (228): 9, 11, 19, 25, 31, 37	**8** **Quiz (2.1 – 2.3)** 2.6 (238): 5, 11, 13, 25, 35, 39 2.7 (248): 5, 15, 39, 49, 55, 67
11 3.1 (270): 11, 13, 17, 19, 29, 43, 49, 61 Review	**12** **EXAM! (2.1 – 2.7)**	**13** 3.2 (284) 1, 9, 11, 33, 41	**14** 3.3 (295): 5, 9, 19, 25, 45, 49, 57, 69 3.4 (308): 1, 5, 7, 11, 17, 21, 25, 37, 47	**15** **Quiz (3.1 – 3.2)** 4.1 (341): 5, 9, 12, 17, 25, 27, 29 5.1 (392): 7, 9, 11, 18, 19, 25, 27, 45-51
18 **Holiday!**	**19** 5.2 (402): 5–13, 19, 21, 27, 31, 45, 59, 61, 65, 69, 79–85 Review	**20** **EXAM! (3.1–3.4, 4.1)**	**21** 5.3 (409): 7, 9, 17, 23-37, 43-53, 67-71	**22** **Quiz (5.1 – 5.2)** 5.4 (419): 1, 9-19, 25-39, 51-55, 75, 79, 85, 89 6.3 (479): 2, 5, 7, 15, 19, 25, 29
25 7.1 (534): 51-62 7.2 (549): 1, 5-15, 19, 23, 27, 34, 41	**26** 7.3 (560): 1-5, 11, 13, 41, 42 Review	**27** **EXAM! (5.1–5.4, 6.3)**	**28** 8.1 (601): 1-11, 23, 25, 37-43, 51, 55, 61, 65-77, 89, 91	**29** **Last Day To: Drop with a W** **Quiz (7.1 – 7.3)** 8.2 (611): 1, 3, 5, 11, 17, 19, 21, 25, 31, 35, 39, 61
1 8.3 (621): 3, 5, 11, 13, 21, 27, 35, 53, 73, 79, 83	**2** Review	**3** **EXAM! (7.1–7.3, 8.1-8.3)**	**4** Final Review	**5** **Final Exam!**

Math 245 Calendar – Winter of 2015 – 8th Edition – Mr. Borsum

- The following calendar shows sections to be discussed in class on each meeting day.
- This schedule is subject to change by the instructor.
- Homework on each section should be completed by the following school day.
- Homework will *not* be checked. However, if you have a thorough understanding of the assigned problems in each section, you should find quiz and exam questions to be similar.

Monday	Tuesday	Wednesday	Thursday	Friday
4 Introduction 2.1 (179): 9, 19, 23, 27, 35, 43, 45, 55	**5** 2.2 (195): 7, 19, 37, 51, 55, 61, 66, 67, 79	**6** **Last Day To: Drop without a W File Pass/No Pass** 2.3 (207): 9, 11, 15, 19, 23, 41, 45, 75	**7** 2.4 (217): 29, 33, 37, 57, 59 2.5 (224): 15, 17, 25, 31, 41, 49	**8** **Quiz (2.1 – 2.3)** 2.6 (234): 9, 15, 17, 29, 41, 45 2.7 (245): 11, 25, 49, 57, 63, 75
11 3.1 (266): 15, 19, 23, 25, 35, 47, 53, 63 Review	**12** **EXAM! (2.1 – 2.7)**	**13** 3.2 (279) 9, 17, 19, 41, 49	**14** 3.3 (290): 11, 15, 27, 35, 55, 59, 67, 81 3.4 (303): 9, 13, 15, 19, 25, 29, 33, 45, 55	**15** **Quiz (3.1 – 3.2)** 4.1 (337): 9, 13, 16, 21, 29, 31, 33 5.1 (388): 13, 15, 17, 23, 25, 31, 33, 51-57
18 **Holiday!**	**19** 5.2 (398): 11-19, 25, 27, 33, 37, 51, 65, 67, 71, 75, 85-91 Review	**20** **EXAM! (3.1–3.4, 4.1)**	**21** 5.3 (405): 13, 15, 23, 29-43, 49-59, 73-77	**22** **Quiz (5.1 – 5.2)** 5.4 (415): 5, 13-23, 29-43, 55-59, 81, 87, 93, 99 6.3 (475): 8, 11, 13, 21, 25, 31, 35
25 7.1 (529): 63-75 7.2 (544): 7, 11-21, 25, 29, 33, 39, 47	**26** 7.3 (555): 5-9, 13, 15, 37, 38 Review	**27** **EXAM! (5.1–5.4, 6.3)**	**28** 8.1 (597): 9-19, 33, 35, 47-53, 63, 67, 73, 77-89, 97, 103, 105	**29** **Last Day To: Drop with a W** **Quiz (7.1 – 7.3)** 8.2 (607): 5, 7, 9, 15, 21, 23-27, 33, 37, 41, 51
1 8.3 (617): 7, 9, 17, 19, 29, 35, 45, 67, 87, 93, 97	**2** Review	**3** **EXAM! (7.1–7.3, 8.1-8.3)**	**4** Final Review	**5** **Final Exam!**