

MATH 1010-2: INTERMEDIATE ALGEBRA
Fall 2010

Instructor: Professor Peter Trapa, LCB 118, 5-7671, ptrapa@math.utah.edu.

Meeting time: Tuesdays and Thursdays, 12:25-2:10PM, in JFB 103.

Office hours: Wednesdays 1-2pm in JWB 333. I also closely monitor my email and (usually) reply to any questions very promptly.

Course webpage: www.math.utah.edu/~ptrapa/1010/

Text: *Intermediate Algebra*, by R. Larson, Fifth Edition (2010), Brooks/Cole Publishing Company.

Content: Our aim is to cover Chapters 1–9 in the textbook. Please see the attached outline.

Homework and Quizzes: Corresponding to each section of the book that we cover, I will provide you with a list of homework problems. It is expected that you attempt all problems and that you read the section of the text from which the problems are taken. Homework will not be collected, but each Thursday will begin with a ten minute quiz consisting of several problems taken directly¹ from the homework corresponding to the previous two lectures. (At the end of each Tuesday lecture, I will explicitly state the sections that the quiz will cover.) No make-up quizzes will be given. If you miss a quiz your score will be entered as a zero. In the figuring of your final grade, your lowest quiz score will be dropped; see below.

Hour Exams: There will be two hour-long exams during the term on the following days:

Exam 1: September 23rd

Exam 2: November 11th

Please make a note of these dates and schedule accordingly. No make-up exams will be given. The tentative content of each exam is explained in the attached outline.

Final Exam: The final exam is a two-hour comprehensive departmental exam. It will be held on

Friday, December 17th, from 3:30-5:30PM

in a location which will be announced later in the term.

Grading: Your grade will be determined by your performance on quizzes and exams (including the final). Your quiz scores (after dropping the lowest one) will be averaged together, and this cumulative average will account for 32.67% of your final grade. Similarly your hour exam scores will be averaged and will contribute 32.67% to your final grade. Your score on the final exam will also contribute 32.67% to your final grade. The last 2% of your grade will be based on your attendance and participation in class. This 2% may be especially relevant in determining borderline grades.

The grading scale in this course is rigidly defined as follows:

A: $\geq 90\%$	A-: $\geq 85\%$	
B+: $\geq 80\%$	B: $\geq 75\%$	B-: $\geq 70\%$
C+: $\geq 65\%$	C: $\geq 60\%$	C-: $\geq 55\%$
D+: $\geq 50\%$	D: $\geq 45\%$	D-: $\geq 40\%$
E: else.		

If at any point during the term you are unsure of where your performance places you in the grading scale, please don't hesitate to schedule a meeting with me so that I can clear up any confusion.

¹I do however reserve the right to change the numbers slightly. For instance, if the homework problem asked you to solve $3x + 4 = 10$ for x , the quiz might instead ask you to solve $2x + 5 = 9$ for x .

Calculators: This course is designed so that the use of calculators is not necessary. No calculators will be allowed on quizzed and exams.

Classroom Etiquette: We have a large amount of material to cover and a relatively short time to do it. Thus every minute of time in class is important. We will begin each lecture at 12:25 sharp and it is expected that you be in your seat ready to take notes when class starts. Class will end at 2:10. Leaving early can significantly disrupt the class, so please don't do it. Please don't begin packing up to leave before class ends, please don't engage in conversation during class, please turn your cellphones and laptops off, and please remove earphones and headsets during class.

Tutoring Center: The math department offers free drop-in tutoring for 1010 students. The tutoring center is located in room 155 of the T. Benny Rushing Mathematics Center (adjacent to the LCB and JWB). You should take advantage of this outstanding facility. You can find more information at <http://www.math.utah.edu/ugrad/tutoring.html>.

Supplemental Instruction: The Supplemental Instruction Program, called SI for short, is offered in this course to provide organized study sessions. These sessions are free and open to all students in the course and are led by an undergraduate who has done well in this subject area. Your SI leader will be attending classes, reading the material, and doing any relevant assignments to be prepared for the SI sessions. The purpose of SI is to see that each of you has the opportunity to do as well as you would like to in this course. In SI sessions, we will review, organize, and clarify the material from lectures; teach you ways to develop effective study skills for this course; and help you prepare for exams. Your SI leader, **Lisa Friedman** (lisafriedman39@gmail.com), will schedule three meetings per week convenient to the majority of your schedules. Attendance is voluntary, and you may attend as many or as few sessions as you like.

Once the days, times and locations of the sessions are announced, you can enter this information on this chart:

Session 1:
Session 2:
Session 3:

At the end of the semester, please complete the post-survey accessed at

www.studentvoice.com/utah/si.html

to provide us with feedback on your experience with SI. Your comments are valued and important.

Keys to Success: 1010 is an important course because it is a prerequisite for nearly all other classes offered by the math department. Here are some tips to succeed:

- (1) **Attend class and take notes.** Engaging yourself in the classroom is an important part of learning the material we cover.
- (2) **Complete all homework problems in a timely fashion.** 1010 moves at a brisk pace. It is easy to fall behind if you do not keep up with the homework problems corresponding to each lecture. Remember that mastering the homework problems virtually guarantees success on the weekly quizzes (which comprise nearly one-third of your grade).
- (3) **Struggling? Get help sooner rather than later.** There are many resources available to you (such as office hours, Supplemental Instruction, and the tutoring center). You should take advantage of them, especially if you find yourself struggling.

ADA Statement: The American with Disabilities Act requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations for the course.

MATH 1010-2: OUTLINE AND HOMEWORK

MATERIAL FOR EXAM 1:

Fundamentals (Chapter 1; 1.5 Lectures). Homework:

- §1.1: 9–61(odd), 83, 85
- §1.2: 7–37(odd), 45–99(odd), 109–119(odd)
- §1.3: 7–19(odd), 45–57(odd)
- §1.4: 1–7(odd), 25–87(odd)
- §1.5: 1–23(odd), 41–59(odd), 61, 63

Linear Equations and Inequalities (Chapter 2; 2.5 Lectures). Homework:

- §2.1: 1–9(odd), 13, 15, 21–63(odd)
- §2.2: 1, 3, 13–33(odd), 43–51(odd), 53–69(odd), 87, 89, 97, 99
- §2.3: 13, 21, 23, 25, 29, 31, 39, 51, 53, 61
- §2.4: 1–23(odd), 29, 31, 37, 41, 51, 53, 55, 61, 63, 71, 79
- §2.5: 1–7(odd), 13, 19, 21, 23, 25, 35, 37, 47, 53, 65

Graphs and Functions (Chapter 3; 3 Lectures). Homework:

- §3.6: 11–15(odd), 21, 23, 25, 27, 33–37(odd), 43–61(odd),
- §3.1: 1–5(odd), 9, 11, 21–39(odd), 55, 59, 61, 63, 71, 73, 75
- §3.2: 1–6(all), 7, 11, 19, 27, 31, 35, 39, 45
- §3.3: 1–13(odd), 17, 25, 27, 35, 37, 39, 43, 45, 53, 55, 57, 61, 71, 75, 77, 79
- §3.4: 1–4(all), 5, 7, 11, 17, 19, 23, 25, 29, 33, 37, 41, 43, 45, 55, 59, 65, 69, 71,
- §3.5 1, 3, 5, 9–14(all), 15, 17, 27, 29, 31

Systems of Linear Equations (Chapter 4; 2 Lectures). Homework:

- §4.1: 1–7(odd), 27–33(odd), 35, 37, 41, 53, 61–69(odd), 97, 101, 105, 109
- §4.2: 13–29(odd), 43, 45, 59, 63, 67, 71
- §4.3: 1, 3, 5, 11, 15, 17
- §4.5: 1–11(odd), 37–45(odd)
- §4.6: 1–6(all), 7–19(odd), 51, 53

MATERIAL FOR EXAM 2:

Polynomials and Factoring (Chapter 5; 3 Lectures). Homework:

- §5.1 1–19(odd), 25–45(odd), 63–75(odd), 91–97(odd),
- §5.2: 1–9(odd), 27–37(odd), 43–49(odd), 53, 55, 65, 69–75(odd), 103
- §5.3: 1–11(odd), 15–27(odd), 33–69(odd), 87, 89, 91
- §5.4: 9–49(odd), 55–95(odd), 111, 115
- §5.5: 1–11(odd), 37–49(odd), 67–83(odd), 93, 97, 101, 103
- §5.6: 1–45(odd)

Rational Functions (Chapter 6; 2 Lectures). Homework:

- §6.1 1–11(odd), 23–27(odd), 43–57(odd), 87
- §6.2: 9–29(odd), 37–49(odd), 55
- §6.3: 1–17(odd), 41–57(odd), 79
- §6.4: 1–17(odd), 23–41(odd), 57, 65

Radicals and Complex Numbers (Chapter 7; 3 Lectures). Homework:

- §7.1: 1–7(odd), 39–61(odd), 73–83(odd), 89–119(odd), 149
- §7.2: 1–11(odd), 19–43(odd), 49, 51, 77

- §7.3: 1–15(odd), 27–39(odd), 47, 49
§7.4: 1–17(odd), 35–43(odd), 57–67(odd), 71, 75–85(odd)
§7.5: 3, 5–23(odd). 39, 41, 45, 49, 55, 59
§7.6: 1–9(odd), 61–71(odd)

Quadratic Equations (Chapter 8; 3 Lectures). Homework:

- §8.1: 1–11(odd), 21–27(odd), 35–41(odd), 67, 75, 76, 101, 105
§8.2: 1–7(odd), 17–25(odd), 37, 41, 45, 53, 57, 63, 73, 75, 91, 93
§8.3: 1–11(odd), 17–33(odd), 49–57(odd), 89, 91
§8.4: 1–6(all), 7–13(odd), 19–43(odd), 83, 85, 95, 99
§8.5: 1, 3, 17, 29, 31, 45, 51, 55

ADDITIONAL MATERIAL FOR THE FINAL EXAM:

Exponentials and Logarithms (Chapter 9; 5 Lectures). Homework:

- §9.1: 1–21(odd), 17, 21, 23, 31, 33, 39, 69
§9.2: 1–9(odd), 19, 21, 41, 43, 45, 75–78(all)
§9.3: 1–35(odd), 53–56(all), 127
§9.4: 1–31(odd), 47–59(odd)
§9.5: 1–25(odd), 39–49(odd), 67, 69, 123, 125
§9.6: 7, 9, 11, 57