SYLLABUS FOR MATH 1300 (Intermediate Algebra) – Spring Semester 2020

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Office: S-729 Office Phone: (713)221-8408 Website: http://cms.uhd.edu/Faculty/NadlerB CRN 28504 OFFICE HOURS: MONDAYS 8:00-8:30am, 1:00-2:00pm

TUESDAYS 8:00-8:30am, 10:00-11:15am, 12:45-1:30pm WEDNESDAYS 8:00-8:30am, 10:00-11:15am, 12:45-1:30pm

THURSDAYS 8:00-8:30am, 10:00-11:00am

WHY YOU ARE IN THIS COURSE: Like many students at UHD, your placement test results indicate that your arithmetic and algebra skills are not sufficiently developed for you to pass College Algebra (MATH 1301). MATH 1300 is a developmental course intended to help build your mathematical skills up to the college level. If you feel that the material in MATH 1300 is too advanced for you and you were misplaced, please see your instructor immediately, so that you can be enrolled in MATH 0300. Remember, it is better to drop back than drop out.

**PREREQUISITE:** A grade of C or better in MATH 0300 or TSI MATH score 336-349. If you do not meet this prerequisite, you may be dropped from the course without prior notification at your own expense. Please see your instructor immediately if you do not meet this prerequisite, so you can be enrolled in MATH 0300.

**TEXTBOOK:** Beginning and Intermediate Algebra with Applications and Visualization, Fourth Edition, by Gary Rockswold and Terry Krieger, Pearson Education, 2018, ISBN 9780134474304 (Loose-leaf textbook is bundled with the required MyMathLab access pack). You can purchase the REQUIRED MyMathLab computerized homework system from www.mymathlab.com

COURSE RESOURCES: The first place to seek assistance and resources is from your instructor, both inside and outside of class. Your instructor will provide the times and locations where he or she is available for office hours to work with you outside of class. Students enrolled in MATH 1300 at UHD have access to the Center for Math & Statistics in the Academic Support Center (N925) where they may obtain additional tutoring with understanding concepts or improving their skills. The Center is staffed with mathematics faculty and student assistants, and offers tutorial help, calculators, and computer access on a walk-in basis. The Center maintains extensive hours which are published each semester. You are encouraged to visit the center throughout the semester whenever you feel you have time to work there - no appointment required. It is an excellent place to study the textbook and work on homework problems, so that you can receive immediate answers to your questions as necessary. The accompanying online homework component, MyMathLab (http://www.mymathlab.com) provides numerous help resources such as chapter pretests, exercise examples, and self-quizzes. The multimedia online library contains section lecture videos, animation examples, PowerPoint slides, test prep videos corresponding to each textbook chapter test, and a multimedia textbook.

VISIT THE UHD ALGEBRA STUDENT WEB PAGE FOR MORE INFORMATION: http://cms.uhd.edu/qep/algebra. Here you will find the Math 1300 Final Exam Review and other resources.

**CALCULATOR USE:** You are allowed to use a scientific calculator on the final exam (a non-programming, non-graphing calculator - no cell phone or other electronic device), but no problem REQUIRES the use of a calculator. You will be expected to have a scientific or graphing calculator in Math 1301.

MAKE-UP POLICY: There will be NO make-up tests or quizzes. Any missed grades are recorded as zeroes, so attendance counts (See Attendance Policy)! If you miss a test due to an emergency, you must notify me promptly in writing with documented evidence. In such case, the final exam will be counted for the missing test.

ONLINE HOMEWORK (MML): To supplement what is done in class, your instructor will require an online resource called MyMathLab. In order to use MyMathLab, you must purchase a Student Access Code from the

UHD Bookstore (bundled with new textbook or sold separately) or purchase it online at <a href="www.mymathlab.com">www.mymathlab.com</a>. If you purchased a MyMathLab code for MATH 0300 or 1300 last semester, you DO NOT need to purchase a new code this semester. Your account will still be active, but you will need to enroll in a new section. You can use MyMathLab on any computer that has Internet access. It is preferable that you use Google Chrome to access MyMathLab. If you do not have a computer at home with Internet access, you can log into MyMathLab from a UHD computer, print out the MyMathLab assignment, work through the exercises on paper, and then enter the answers in MyMathLab when you are next on campus. To register with MyMathLab, you will also need a valid email address – use one that you regularly check. You must register with MyMathLab at <a href="www.mymathlab.com">www.mymathlab.com</a> only the first time that you use it. (1) The course ID number will be given to you by your instructor. (2) The zip code for UHD is 77002. (3) You will then create a Login Name and Password which you will use to log in whenever you use MyMathLab at <a href="www.mymathlab.com">www.mymathlab.com</a>. Make sure to record your exact login name and password for future logins. *Note:* The computers in the Center for Math & Statistics (formerly called the Math Lab) in N925, the Academic Computing Labs (S800, C300, B200), the PLTL (Peer Led Team Learning) Lab (S738), and the SI Lab (S405) can be used to access MyMathLab.

You can:

- Complete and submit homework assignments online;
- Check out your MyMathLab homework grades and other course grades in the Gradebook;
- View a complete online version of the textbook and look at multimedia sources such as online video clips that accompany the textbook, and much more.

Please contact me immediately if you have any problems with the website. You may bring your laptop because UHD is wireless. Studying and completing the homework problems from the list of suggested textbook homework problems in the syllabus is the best way to study for an exam in addition to completing all online homework by the exam date. 5 points extra credit on the test is given to those students that have completed ALL online homework for that chapter with a grade of 90 or above by each exam date. An additional 5 points extra credit will be given if the quizzes for that test period are at 90 or better.

**IN-CLASS ACTIVITIES (GROUP WORK):** Over the course of the semester, there will be several in-class assignments which can be done in groups. On that day when an in-class assignment is given, the assignment will count as the roll sheet. It cannot be made up. Be sure to turn in your assignment even if it is incomplete to be counted as present! Not turning in the assignment will result in a grade of zero.

#### **METHOD OF EVALUATION:**

- Three (3) of four major in-class exams at 100 points each will be counted as 39%.
- In-class Activities and MML online homework assignments and quizzes (*MyMathLab*) will be 28% of your grade. All online homework is due the day of the test BEFORE you take the test.
- The final exam grade is worth 33% of your semester grade. The comprehensive final exam contains all multiple choice questions to be taken on a scantron. If the final exam score is less than 50, regardless of the course average, a grade of "F" or "IP" will be given.

The grading scale is: 90 and above A, 80 - 89 points B, 70 - 79 points C, and 69 points or below IP (In Progress) or F.

These grades will appear on student transcripts, but will not be calculated into the GPA. Students not taking the final exam will receive an "F" for the semester. Students not making a final exam score of 50 or better cannot pass the class.

Students violating the Math 1300 Attendance Policy will receive an "F" for the course, regardless of their average.

Students attending class but not making a genuine effort to pass (as evidenced by not turning in assignments on time, not participating in class, not seeking help outside of class, etc.) will receive an "F" for the course, regardless of their average.

**HONESTY CODE:** Please remember that as a member of the UHD academic community you are bound to observe the academic honesty code in all your school work. A grade of "0" will be given for any course work where cheating is detected.

#### SUPPLIES NEEDED:

- My Math Lab (listed above) REQUIRED!
- A 3-ring binder or folder to keep the daily sheets, all notes, any homework questions requiring help, and all exams
- The textbook (listed above) optional
- Graph Paper

**DROPPING THE COURSE:** Please note that the last day to withdraw from a course with a grade of "W" is **February 12<sup>th</sup> (6:00 pm)**. If you do not complete the course requirements and do not officially withdraw, you will receive a grade of "F". You cannot receive the grade of "I" – Incomplete unless you have a documented personal emergency that prevents you from completing the last fraction of the course. You must have a passing average on the work you have already completed to receive an "I".

ATTENDANCE: Your failure to attend class (face to face or hybrid), engage course material (Online only), or make contact with faculty to adequately explain your absence by the 10<sup>th</sup> class day of the semester will result in your being administratively dropped from this course. Being dropped from this course may affect your enrollment status and/or your financial aid eligibility. If a student misses the equivalent of more than 6 hours of class, the instructor will notify the MS department office that the student is in violation of the Attendance Policy. Students that violate the Attendance Policy are not eligible to receive a grade of "IP" if they are not passing the class. They must receive a grade of "F" for the course. Students who are attending regularly and completing in-class assignments as well as online homework and quizzes but still are not passing the course will receive a grade of "IP". If you do not attempt the final exam you will receive a grade of "F" for the course (departmental rule).

Goals/Objectives: At the completion of this course, a student should be able to:

- (1) Perform multiplication and division with polynomials
- (2) Factor-out the greatest common factor from polynomials
- (3) Factor binomials and trinomials using several techniques
- (4) Solve quadratic equations in one variable by the methods of factoring and the Zero-Product Property, complete-the-square and apply the Square-Root Property, and the Quadratic formula
- (5) Graph basic transformations of quadratic functions
- (6) Evaluate, simplify, and solve rational expressions and equations
- (7) Simplify complex fractions
- (8) Evaluate and simplify square-roots, cube roots, and compute nth roots
- (9) Write radicals using rational exponents and vice-versa
- (10) Simplify and combine radical expressions, and rationalize denominators
- (11) Solve radical equations and apply the distance formula
- (12) Identify, define, recognize, and evaluate functions and their representations

Chapters Covered in Class
Chapter 5
Polynomials and Exponents

Chapter 6
Factoring Polynomials
and Solving Equations

Sections Covered in Class

5.4 Special Products

5.5 Integer Exponents and the Quotient Rule

5.6 Division of Polynomials

6.1 Introduction to Factoring

6.2 Factoring Trinomials I ( $x^2 + bx + c$ )

6.3 Factoring Trinomials II ( $ax^2 + bx + c$ )

6.4 Special Types of Factoring

6.5 Summary of Factoring

6.6 Solving Equations by Factoring I (Quadratic)

Chapter 7 **Rational Expressions** 

7.1 Introduction to Rational Expressions

7.5 Complex Fractions

7.6 Rational Equations and Formulas

Chapter 8 **Introduction to Functions** 

8.1 Functions and Their Representations

Chapter 10 **Radical Expressions and Functions**  10.1 Radical Expressions and Functions

10.2 Rational Exponents

10.3 Simplifying Radical Expressions 10.4 Operations on Radical Expressions

10.6 Equations Involving Radical Expressions

Chapter 11 **Quadratic Functions and Equations**  11.1 Quadratic Functions and Their Graphs

11.2 Transformations and Translations of Parabolas

11.3 Quadratic Equations 11.4 The Quadratic Formula

**EXCESS COURSE ATTEMPTS**: In accordance with state law, effective Fall 2004, UHD is charging a fee of \$65 per semester credit hour for enrollment in a developmental course after 18 hours of developmental work has already been attempted. Once 18 hours of developmental course work has been accumulated, registration in a development-al course will result in the additional charge. An attempt is defined as an enrollment that results in a letter grade (including "S", "U", "IP", and "W"). A developmental math course is defined as MATH 0300 and MATH 1300.

#### SATISFACTORY PROGRESS POLICY FOR DEVELOPMENTAL COURSES:

#### PLACED ON ACADEMIC NOTICE (AN):

- o If you receive an IP (In Progress) in this course, you may enroll in a maximum of 12 credit hours the next semester (You must re-enroll in the same course until satisfactorily passed.).
- o If you receive two or more IP's in the same semester in different courses, you may enroll in a maximum of 9 credit hours the next semester (You must re-enroll in the same course until satisfactorily passed.).

#### PLACED ON DEVELOPMENTAL PROBATION (DP):

- o If you receive an F in this course, or four IP's over four semesters in the same course
  - You may enroll in a maximum of 9 credit hours the next semester (You must re-enroll in the same course until satisfactorily passed).
  - You must also enroll in an extra course (Math 1201-Math Success Lab) to help you pass the developmental course the next semester
  - You are required to meet with an assigned advisor on a regular schedule (at least 3 times during the semester)

#### PLACED ON DEVELOPMENTAL ACADEMIC SUSPENSION (DS):

- o If you earn two consecutive grades of F or a fifth IP in the same course
  - You cannot enroll at UHD for one long semester
  - You must reapply for readmission to UHD before you can enroll
- THE APPEALS PROCESS If you are placed on DS status and believe an exception should be made for you, then submit in writing your reasons to your academic advisor (the Dean of University College will make the final decision).

STATEMENT ON REASONABLE ACCOMMODATIONS: UH-Downtown complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students with a disability. In accordance with Section 504 and ADA guidelines, UHD strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a documented disability requiring academic adjustments/auxiliary aids, please contact the Office of Disability Services, One Main St., Suite 409-South, Houston, TX 77002. (Office) 713-226-5227 (Website) www.uhd.edu/disability/(Email) disabilityservices@uhd.edu

#### **INTERMEDIATE ALGEBRA SUCCESS TIPS:**

- Be on time and attend every class session.
- Do all assigned online homework problems & optional textbook assignments for each section!!
- Try not to fall behind. In fact, try to stay ahead!
- Ask questions in class whenever you feel yourself starting to get lost!
- Keep track and record ALL grades so that you can be aware of your average throughout the semester.
- Read the textbook (often more than one time) after I have introduced the lesson and before you start your homework IT IS VERY HELPFUL! Work through the examples and compare your solutions with those in the book.
- Get in the habit of first writing the entire problem, and then clearly and legibly write each step in solving the problem and clearly write out the solution. Writing helps catch faulty thinking!
- Sit in the front of the class to avoid distraction.
- Use the Math Center (N-925) for tutoring with all homework.
- Watch the video of each section located in the "Multimedia" section of My Math lab
- Become part of a small group (3-4) that meets to do homework together in the math lab and study for exams.
- Obtain the phone number or email address of a classmate in case of absence to keep up with any assigned work or due dates.
- Study for all tests try preparing study sheets and reviewing with classmates.
- Use my office hours for homework questions or academic questions as they arise.
- Do not get up during class or leave early unless you inform the instructor ahead of time. Plan ahead use the restroom, get water, etc. before class begins or wait until it is over.
- Do not get up or leave the room during an exam! Always be on time for all exams!

#### Please make a commitment to:

- 1) ATTEND class regularly
- 2) DO online homework @ 90% or better by the test date
- 3) Visit the Math Center in N925 regularly for help or reassurance

WHY? Because 90% of students who do the above three things PASS the class!!!

CRN<u>a8504</u> 11:30am

Math 1300 Spring 2020 Calendar

Date

Section Covered

Jan 13	5.4						
14	5.5						
15	5.6						
16	Test 1						
20	Holiday						
21	6.1						
22	6.2, 6.3						
23	6.2, 6.3						
27	6.4						
28	6.5						
29	6.6						
30	Review						
Feb 3	Test 2						
4	7.1						
5	7.5						
6	7.6						
10	8.1						
11	Review						
12*	Test 3						
13	10.1						
17	10.1						
18	10.2						
19	10.3						
20	10.4						
24	10.6						
25	10.6						
26	Review						
27	Test 4						
Mar 2	11.1						
3	11.2						
4	11.3-11.4						
5	Final Exam						
9-13	Spring Break						
*	Last day to Withdraw from a course with a						
	grade of "W" Part of Term (February 12 <sup>th</sup> )						

### Hath 1300 11:30 MyMathLab Computerized Homework System (Required)

#### To register and enroll in a course (Do not use Internet Explorer):

- 1. Go to <a href="https://www.pearsonmylabandmastering.com">www.pearsonmylabandmastering.com</a> or <a href="https://www.mymathlab.com">www.mymathlab.com</a> and select <a href="https://www.mymathlab.com">Student</a> under Register.
- 2. Select OK! Register now.
- 3. Enter the course ID you received from your instructor for your new course, and select **Continue**.

  Course ID blumberg 85672
- 4. Enter your username and password (only if you have used MML and have already created an account), and select **Sign In**.

If you don't have a Pearson account, select Create and follow the onscreen instructions.

Make sure to write down your username and password in your phone or someplace safe. When asked for your email address, use the email account you check most often!

- 5. On the Register page, select an access option:
  - Use an access code (if you have bought the access code from the bookstore)
    - a. Select Access Code and paste the entire access code into the first box.
    - b. Select Finish to complete your registration.
  - Buy access online (usually the cheapest if you aren't buying the textbook)
    - a. Under Use a Credit Card or PayPal, select the access level you want. For example, a product might be offered with or without an eTextbook, or for a shorter amount of time than the full course duration. The subtotal for your order appears.
    - b. Select whether to pay with a credit card or use PayPal, then enter payment information.
    - c. Select Review to see your order details. If you need to change anything, select Change.
    - d. Select **Make Payment** to submit your order, or **Cancel** if you decide not to complete your purchase.

#### Get temporary access

If you're waiting for financial aid, 14 days of temporary course access without payment may be available.

- a. Select **Get temporary access without payment for 14 days** at the <u>bottom</u> of the Register page.
- b. When a confirmation message appears, select **Yes** to complete your registration. You will receive a confirmation email with payment instructions.
- 6. Select **Go to My Courses** and then select your Math course. Then select the **Homework and Quizzes** tab on the left side. The Algebra Review and all homework and quizzes from the first chapter will be due the day of the first test (check your calendar). If you would like to use the textbook for reference, select the **e-textbook** tab on the left side.

#### To sign in later:

- 1. Go to <u>www.pearsonmylabandmastering.com</u>. or <u>www.mymathlab.com</u>
- 2. Select Sign In.
- 3. Enter your Pearson account username and password, and Sign In.

Need technical support? Call (toll-free) 844-292-7015

#### **ALGEBRA SUCCESS TIPS**

- Be on time and attend every class session.
- Read & highlight the syllabus the day it is given out. Refer to it often & bring to class
- Do all assigned homework problems the day the section is covered in class!!
- Try not to fall behind. In fact, try to stay ahead!
- Ask questions in class whenever you feel yourself starting to get lost!
- Keep track and record ALL grades so that you can be aware of your average throughout the semester.
- Read the textbook (often more than one time) after the instructor has introduced the lesson and before you start your homework IT IS VERY HELPFUL! Work through the examples and compare your solutions with those in the book.
- Get in the habit of first writing the entire problem, and then clearly and legibly write each step in solving the problem and clearly write out the solution. Writing helps catch faulty thinking!
- Sit in the front of the class to avoid distraction.
- Use the Math Lab (N-925) and the SI Lab in S405 (check hours) for tutoring with all homework.
- Watch the video of each section located in the "Multimedia" section of My Math lab
- Become part of a small group (3-4) that meets to do homework together in the math lab and study for exams together.
- Obtain the phone number or email address of a classmate in case of absence to keep up with any assigned work or due dates.
- Study for all tests try preparing study sheets or index cards and reviewing with classmates.
- Use my office hours for homework questions or academic questions as they arise.
- Do not get up during class or leave early unless you inform the instructor ahead of time. Plan ahead - use the restroom, get water, etc. before class begins or wait until it is over.
- Do not get up or leave the room during an exam! If you are late on the exam day and at least 1 person has already completed the exam, the instructor does not have to give you the exam (then your grade will be a zero!)!

# "Math Classroom Etiquette Rules"

- 1. Go to the restroom before class.
- 2. Unless you become suddenly ill or you notify me before class, remain in class until <u>dismissed</u> by me.
- 3. Cell phones should be turned off and put away. No electronic earpieces that are not medically necessary are allowed.
- 4. Check the calculator policy to see what kind can be used in class!
- 5. No web surfing. Do not work on the online homework during class unless you are directed by your instructor
- 6. No sleeping if you get drowsy, ask if you may use the restroom to splash water on your face.
- 7. If you are taking a test, do not get up for any reason unless you have completed your test! If you get up I will assume you have finished your test and I will take it up!
- 8. If you are late on test day, you will not be able to take the test after the first person has completed an exam.

# Testing Numbers To See If They Are Evenly Divisible By...

0	Undefined! No number can ever be divided by zero!!						
1	All numbers are divisible by 1!						
2	Even numbers – numbers ending in 0, 2, 4, 6 or 8						
3	Add up the digits! If the sum of the digits is divisible by 3,						
	then the number is too.						
4	If when you divided the original number by 2 the quotient						
	(result) was even or if the last 2 digits are divisible by 4.						
5	If the number ends in 0 or 5						
6	If the number is divisible by both 2 and 3						
7	No divisibility test for 7!						
8	If when the original number was divided by 4 the quotient						
	(result) was even or if the last 3 digits are divisible by 8.						
9	Add up the digits! If the sum of the digits is divisible by 9,						
	then the number is too.						
10	The number ends in 0.						
11	Double digits for all numbers less than 100.						

# Math 1300 Course Formulas

Pythagorean Thm: 
$$a^2 + b^2 = c^2$$

$$a^2 + b^2 = c^2$$

$$m=rac{oldsymbol{y}_2-oldsymbol{y}_1}{oldsymbol{x}_2-oldsymbol{x}_1}$$
 (Start with the same pt. for each subtraction)

Distance: 
$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Quadratic: 
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Point-Slope Form: 
$$y = y_1 + m(x - x_1)$$
 (Not required to know)

Slope-Intercept Form: 
$$y = mx + b$$

$$y = mx + b$$

Square Root Property: If 
$$a^2 = b$$
, then  $a = \pm \sqrt{b}$  (Chapter 11)

$$a^{m/n} = \left(\sqrt[n]{a}
ight)^m$$

$$a^{-n}=rac{1}{a^n}$$

$$a^0=1$$

# **Multiplication Table**

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

# CENTER CENTER

ALL COLLEGE STUDENTS GO TO TUTORING.
YOU ARE A COLLEGE STUDENT.
THEREFORE YOU SHOULD GO TO TUTORING.

WE OFFER FREE TUTORING FOR MATH & STATISTICS!

# AVAILABLE SUBJECTS

MATH 0300 Beginning Algebra MATH 1300 Intermediate Algebra MATH 1301 College Algebra MATH 1302 Trigonometry MATH 1305 Finite Math MATH 1306 Business Calculus MATH 1310 Contemporary Math MATH 1404/1505 Pre Calculus MATH 2401 Calculus I MATH 2402 Calculus II MATH 3321/3322 Concepts STAT 1312 Statistical Literacy STAT 3309/3310 Business Stats

# SERVICES

- WALK-IN TUTORING
- FACE TO FACE & ONLINE APPOINTMENTS
- DROPBOX
- STUDY SPACE

## HOURS

**MONDAY - THURSDAY** 

8:00 AM - 8:00 PM

FRIDAY

8:00 AM - 2:00 PM

SATURDAY

11:00 AM - 5:00 PM

FOR MORE INFORMATION:

WWW.UHD.EDU/MATHCENTER MATHCENTER@UHD.EDU 713.221.8669

TO MAKE AN APPOINTMENT OR TO DROPBOX:

WWW.UHD.MYWCONLINE.NET

