

University of North Texas at Dallas

Spring 2016

SYLLABUS

MATH 1354 Number and Operations for Teachers 3 credit hours

Division: Liberal Arts and Life Sciences

Department: Mathematics and Information Sciences

Instructor: Dr. Gwendolyn Johnson

Office: Founders Hall (Bldg 2) Room 232

Phone: 972-338-1320

Email: Gwendolyn.johnson@untdallas.edu

Office hours:

Mondays and Wednesdays 11:30 to 1:00 and 2:30-3:30 (I can stay later if needed.)

Tuesdays and Thursdays 3:00 to 5:30

Fridays by appointment

Because I often have meetings on campus, I might not be in my office during these hours. Please email me to make sure I will be available before you visit.

Class Times: Mondays and Wednesdays 10:00 to 11:20

Course Catalog Description:

Intended for individuals seeking EC-6 or Grades 4-8 teaching certification. An in-depth investigation of the number and operations concepts taught in elementary and middle school including addition, subtraction, multiplication, division of positive and negative integers; number theory; rational numbers; proportional reasoning.

Learning Objectives:

1. The student will demonstrate content knowledge and pedagogical content knowledge related to addition, subtraction, multiplication, and division.
2. The student will demonstrate content knowledge and pedagogical content knowledge related to real and imaginary numbers.
3. The student will demonstrate content knowledge and pedagogical content knowledge related to ratios, proportions, and proportional reasoning.

INTASC and NCATE Standards:

InTASC Standard #4 Content Knowledge: The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline meaningful for learners to ensure mastery of the content.

InTASC Standard #5 Application of Content The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

NCATE Standard 1: Candidate Knowledge, Skills, and Professional Dispositions

Learning Resources:

UNT Dallas Math Lab is located in Bldg 1 room 336.

UNT Dallas Writing Center can be found at www.unt.edu/wc

Academic Advising and Student Support is located in Bldg 1, third floor. 972-338-1645

Grading:

Tests and Quizzes 800 points

Homework 180 points

Group Activities _____ 20 points

1,000 points total

Course Outline

| Dates | Monday | Wednesday |
|---------------|---|---|
| Jan 20 | | PowerPoint 1A: Word problems with addition and subtraction |
| Jan 25, 27 | PowerPoint 1B: Word problems w/ multiplic., division Group Activity 1 | PowerPoint 1C: Types of Numbers, Closure of Sets Quiz 1: Word Problems |
| Feb 1, 3 | PowerPoint 1D: Order of operations | PowerPoint 1E: Estimation HW due Quiz 2: Estimation and Order of Operations Feb 3 is the last day to drop without a W. |
| Feb 8, 10 | PowerPoint 2A: Prime numbers, prime factorization, GCF, LCM | PowerPoint 2B: Square roots and review Quiz 3: Number Theory and Square Roots |
| Feb 15, 17 | PowerPoint 2C: Fraction basics part 1 Attendance in class is optional. | PowerPoint 2D: Fraction basics part 2 Quiz 4: Fraction basics |
| Feb 22, 24 | PowerPoint 2E: Fractions part 1 Group Activity 2 | PowerPoint 2F: Fractions part 2 |
| Feb 29, Mar 2 | Test on Fractions HW due | Place value – class online |
| March 7, 9 | PowerPoint 3A: Decimals part 1 | PowerPoint 3B: Decimals part 2 |
| March 14-18 | Spring Break! Midterm grades available online on March 19. | |
| March 21, 23 | PowerPoint 3C: Scientific Notation | Test on Decimals, Place Value, Sci. Notation HW due |
| March 28, 30 | PowerPoint 4A: Percents part 1 | Percents – class online |
| April 4, 6 | PowerPoint 4B: Percents part 2 | Percents – class online April 8 is the last day to withdraw with a W. |
| April 11, 13 | PowerPoint 4C: Percents part 3 | Test on Percents HW due |
| April 18, 20 | PowerPoint 5A: Rates and Ratios part 1 | PowerPoint 5B: Rates and Ratios part 2 |
| April 25, 27 | PowerPoint 5C: Proportions | Practice problems – class online |
| May 2, 4 | Test on Rates, Ratios, Proportions HW due | Review for the Final Exam |
| May 9 or 11 | Comprehensive Final Exam: Check the Final Exam Schedule | |

Course Policies

Attendance

Missing class for any reason will affect your attendance grade. There is no such thing as an “excused” absence. You do NOT need to bring doctor’s notes. Arriving late or leaving early will affect your attendance grade. If you will be arriving late or leaving early on a regular basis, please let the instructor know the reason.

Blackboard

You are expected to use Blackboard to check announcements, participate in discussions, check your grades, download documents, and upload your homework. If you need help using Blackboard, please ask the instructor or call the Helpdesk at 972-338-5580.

Calculators

You ARE ALLOWED to use a calculator to complete homework assignments, including graded assignments.

You are NOT ALLOWED to use a calculator on tests. Most test questions can be answered through estimation or simple calculations.

Grades on Tests and Homework

Tests are usually graded within two business days. Homework is generally graded within one week. You can monitor your progress in the class by checking “My Grades” in Blackboard.

Late Homework

A late penalty will be assessed for work turned in after the due date. No work will be accepted after the final exam. Work will not be accepted more than two weeks after the due date.

Make-up Tests

If you must miss a test, please let the instructor know ahead of time. You must take a make-up test within one week of the original test date. The make-up test must be taken in one sitting. (You can’t leave and come back to finish later.)

Netiquette

In electronic communication (Discussions and Email), please use complete sentences and explain your thoughts clearly and completely. If I do not respond to an email, it could be that I did not understand what you wrote in the email.

PowerPoints

Information in the PowerPoints is generally accurate, but small mistakes are possible. Please let the instructor know if you find any mistakes or have any questions about the material in the PowerPoints. If we do not get through all of the material in a PowerPoint in class, it is your responsibility to finish going through the PowerPoint on your own.

University Policies and Procedures

Bad Weather:

On days that present severe weather and dangerous driving conditions, a decision may be made to close the campus. Please sign up for the JagAlert Emergency Notification system.

<http://www.untdallas.edu/police/resources/jagalert>

If you have already signed up, make sure your information is up-to-date.

Children on Campus:

University policy does NOT allow you to bring your children to class. The university policy states, "UNT Dallas students may not bring children to campus and leave them unattended. UNT Dallas students may not bring children to campus and take them to class."

Class Attendance:

You are expected to attend class! The university policy states that UNT Dallas "recognizes that student success is promoted by the expectation of regular attendance and participation in class. Regular and punctual attendance at all scheduled classes is expected."

Course Drop

Courses dropped prior to the census date will not appear on the student's transcript. If a course is dropped after the census date but prior to the end of the sixth week, the faculty member will assign a grade of W. No student will be allowed more than six grades of W other than the exceptions on the university's website.

Students with Disabilities (ADA Compliance):

The University of North Texas Dallas is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. For more information, you may visit the Student Life Office, Suite 200, Building 2 or call 972-780-3632.

The Department of Teacher Education is committed to full academic access for all qualified students, including those with disabilities. In keeping with this commitment and in order to facilitate equality of educational access, faculty members in the department will make reasonable accommodations for qualified students with a disability, such as appropriate adjustments to the classroom environment and the teaching, testing, or learning methodologies when doing so does not fundamentally alter the course.

If you have a disability, it is your responsibility to obtain verifying information from the Office of Student Life and to inform me of your need for an accommodation. Grades assigned before an accommodation is provided will not be changed. Information about how to obtain academic accommodations can be found in UNTD Policy 7.004, [Disability Accommodations for Students](#), and by visiting Student Life, building 2, Suite 200. 972-780-3632, studentlife@unt.edu.