

University of North Texas at Dallas

Fall 2015

SYLLABUS

MATH 1354 – 030 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:

Tuesdays 11:30-1:00 and 2:30-5:30

Wednesdays 2:30-5:30

Thursdays 11:30-1:00

Mondays, Fridays, and Saturdays 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 Location:

Class Times: Wednesdays 5:30 to 6:50 and online

Course Catalog Description:

Intended for individuals seeking EC-6 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:

| | |
|-----------------------------|------------------|
| Six Tests (100 points each) | 600 points |
| Homework | 80 points |
| In-class Participation | 50 points |
| Math Lab or On-line Partic. | <u>20 points</u> |
| | 750 points total |

Tentative Course Outline

| Dates | Wednesday: In-person | Online |
|---------------|---|---|
| Aug 24-28 | Computation with positive, negative integers | Addition and sub. word problems and vocab |
| Sept 1-4 | Divisibility tests, prime and composite num. | Multiplication and division |
| Sept. 7-11 | Factors and multiples, GCF, LCM | Imag. num.; order of oper.; square roots |
| Sept 14-18 | Test on Numbers and Operations | Equivalent fractions |
| Sept 21-25 | Compare proper and improper fractions | Multiply and divide fractions |
| Sept.28-Oct 2 | Add and subtract fractions, mixed numbers | Review |
| Oct 5-9 | Test on Fractions HW due | Decimal place value; comparing decimals |
| Oct 12-16 | Converting between fractions and decimals | Computation with decimals |
| Oct 19-23 | Scientific notation | Review and practice |
| Oct 26-30 | Test on Fractions and Decimals HW due | Understanding percents |
| Nov 2-6 | Percent word problems, percent increase/dec. | Converting fractions, decimals, percents |
| Nov 9-13 | Test on Decimals and Percents HW due | Rates and ratios |
| Nov 16-20 | Strip diagrams | Practice proportion problems |
| Nov 23-27 | Class online: Practice proportion problems | Practice proportion problems |
| Dec 1-4 | Test on Proportions HW due | Review |
| Dec 8-11 | Comprehensive Final Exam | |

Course Policies and Procedures

Tests

Students will **NOT** be allowed to use calculators, cell phones, notes, or any other materials while taking tests.

Students who are absent the day of the test **MUST** inform the instructor ahead of time. Make-up tests may or may not be available, depending on the situation.

Homework

Homework must be typed and submitted through Blackboard unless other instructions are given. Spelling, grammar, organization count toward the grade. Your thoughts and reasoning must be fully explained.

You may work with another student, friend, or family member on the homework, but the work that you turn in must be your own. **Your work should not look too similar to other another student's work.**

Homework will be accepted up to three weeks past the due date, but a late penalty will apply. The late penalty will be 10% for one day to one week late, 20% for eight days to two weeks late, and 30% for 15 days to three weeks late.

Attendance and Participation

If you must miss class, it is your responsibility to learn the information by downloading the PowerPoint from Blackboard and scheduling an appointment with the instructor.

Participation includes attending class, paying attention to the instructor and other students, asking and answering questions, and volunteering to solve problems at the board. Students who miss class for any reason will lose participation points. **Students who arrive late or leave early will lose participation points.** If you have a good reason to arrive late or leave early, please notify the professor.

University Policies and Procedures

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.

Student Evaluation of Teaching Effectiveness Policy:

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching.

Academic Integrity:

Students who engage in any behavior unbecoming of a teacher will be asked to sign a referral form that will be kept in their file in the Teacher Education department.

Students are expected to abide by the University's code of conduct and Academic Dishonesty policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Conduct at http://www.unt.edu/csrr/student_conduct/index.html for complete provisions of this code.

Bad Weather Policy:

Please sign up with JagAlert to receive notifications when the campus is closed.

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website www.unt.edu/dallas.

Diversity/Tolerance Policy:

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.