



WICHITA STATE
UNIVERSITY

Math 111, College Algebra, Fall, 2019

- Instructor: Matt Tucker
- Department: Mathematics, Statistics and Physics
- Office Location: Jabara 325
- Office Hours: MF- 12-1pm, Jabara Rm 325
W- 12-1, Jabara Math Lab
- Email: mktucker2@shocker.wichita.edu
- Classroom: McKinley Hall Rm 107
- Class Date/Time: TR 9:30 AM-10:45 AM
- Prerequisites: High school geometry is a highly recommended preparatory course. Prerequisites: MATH 012 or two years of high school algebra and qualifying score in recent department placement exam. Credit is allowed in only one of the two courses MATH 111 and 112.

How to use this syllabus

This syllabus provides you with information specific to this course, and it also provides information about important university policies. This document should be viewed as a course overview; it is not a contract and is subject to change as the semester evolves.

Academic Integrity

Students at Wichita State University are expected to uphold high academic standards. WSU will not tolerate a lack of academic integrity. Students are responsible for knowing and following the Student Code of Conduct

http://webs.wichita.edu/inaudit/ch8_05.htm and the Student Academic Honesty policy http://webs.wichita.edu/inaudit/ch2_17.htm. When the faculty member determines sanctions are warranted for violations of academic integrity, regardless of severity, the faculty member must report the infraction to the Office of Student Conduct and Community Standards. If you need more information about the process or wish to appeal a decision, please visit https://www.wichita.edu/about/student_conduct/AcademicDishonesty.php.

Course Description

General education foundation course. A survey of functions, theory of equations and inequalities, complex numbers, and exponential and logarithmic functions. The course will meet the mathematics basic skills requirement for graduation, and will provide the basis for further mathematics study or study in related fields.

Definition of a Credit Hour

Success in this 3 hour credit course is based on the expectation that students will spend, for each unit of credit, a minimum of 75 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction and preparation/studying or course related activities for a total of 225 hours.

Measurable Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- Use and interpret function notation.
- Find the domain of polynomial, rational, radical, exponential, and logarithmic functions.
- Evaluate the sum, difference, product, quotient, and composition of two functions at a given value of the respective domain for functions represented symbolically, graphically, and numerically.
- Find the inverse of a function represented symbolically, graphically, or numerically.
- Interpret the graphs of functions
- Sketch the graphs of the following functions: x , x^2 , x^3 , \sqrt{x} , factored polynomials of degree 3 or more, a^x , $\log_a(x)$ and transformations of these functions.
- Describe the end behavior of polynomial functions using the leading term test.
- Approximate the zeros of a function from its graph.
- Solve an inequality involving a function from its graph.
- Graph a piecewise defined functions
- Solve polynomial, rational, exponential, and logarithmic equations and inequalities symbolically.
- Solve equations involving radicals and rational exponents symbolically.
- Use the Fundamental Theorem of Algebra and the Conjugate Zeros Theorem to find zeros of polynomials of degree three or greater.
- Use polynomial division and the remainder theorem to determine if a value is a root of a polynomial.
- Find the vertex of a parabola and the center and radius of a circle by completing the square.
- Find the vertex of a parabola written in standard form
- Find the center and radius of a circle written in standard form

- Convert an exponential equation to logarithmic form, and a logarithmic equation to exponential form.
- Evaluate logarithms using the change of base formula and a calculator.
- Use the properties of logarithms to expand a logarithmic expression, and to write an expanded logarithmic expression as a single logarithm.
- Solve two and three variables systems of linear equations using Gaussian elimination.
- (At the discretion of the instructor) Solve system of linear equations using Gauss-Jordan elimination on augmented matrices
- (At the discretion of the instructor) Solve a matrix equation by inverses
- Recognize and use applications of linear functions, quadratic functions, exponential and logarithmic functions
- Recognize and use applications of systems of linear equations.
- Recognize patterns in arithmetic, geometric, and recursively defined sequences to find a general term
- Find the sum of the first n terms of arithmetic and geometric sequences

Required Texts/Readings Textbook

ALEKS 360 subscription for online student and faculty support as well as student work. Access codes are available for purchase through the bookstore or directly through the ALEKS website. (Students will receive access to an eBook along with their purchased subscription)

Other Equipment/Materials

The student is expected to have daily internet access for use in communication and for use of ALEKS. If home equipment is not available, the student may use computer laboratories in Jabara Hall, in Corbin Education Center, the library, and other campus buildings.

Students are not required to own a graphing calculator. Note: These are learning tools and will not be available on the final examination.

Class Protocol

Participation: The lesson format will vary from day to day with students expected to read and write in and outside of class, speak within problem solving groups, and to address the class, and listen to the ideas of others.

Attendance: Attendance is required and daily participation will be graded. If you cannot attend class, notify the instructor prior to your return to class to make arrangements to be prepared for the next class. No makeup tests will be given.

Cell phone use: Use of cell phones is prohibited during class time by [university policy](#) and students found in violation of this policy forfeit their participation points for the class with additional penalties levied at the discretion of the instructor.

Contact Policy

Although you may attempt to reach me by phone, email communication is always preferred. Feel free to email me any questions or concerns following these guidelines:

- Always use the course name in the subject line of the email
- Remember to sign your name.
- **Always** email me from your WSU email address. Email sent from personal email servers like Gmail, Yahoo, etc., have a tendency to end up in my spam folder, and I never see them. You may also email me through Blackboard via the Email My Instructor tab. I also offer an Ask My Instructor forum on Blackboard which allows common questions to be seen and responded to publicly.
- You should NOT contact me for tech support.
 - Any technical problems involving your computer, or issues regarding file uploading or sharing, should go through the OneStop. You can contact them at 316-978-3909. You can also fill out a request for help form at their [website](#).
 - However, if you have a problem with access or uploading assignments, you *should* let me know before your assignment is due. You will also have to accompany this notification with the file in question, so I can verify that it is completed by the due date/time.

Grading Scale

WSU uses a +/- grading scale for final grades and to calculate grade point averages. In this class, grades are assigned according to the following chart. (Other classes might assign grades differently: Be sure to understand the different grading scales in all of your classes.)

Points/Percentage	Letter Grade	Grade Points	Interpretation
100 - 93	A	4.00	A range denotes excellent performance
92 - 90	A-	3.70	
89 - 87	B+	3.30	
86 - 83	B	3.00	B range denotes good performance
82 - 80	B-	2.70	
79 - 77	C+	2.30	
76 - 73	C	2.00	C range denotes satisfactory performance
72 - 70	C-	1.70	
69 - 67	D+	1.30	
66 - 63	D	1.00	D range denotes unsatisfactory performance
62 - 60	D-	0.70	
59 - 0	F	0.00	

Assignments

The student's performance will be assessed and the class grade determined by accumulated points based on a variety of sources including work in ALEKS, class participation and exams. A listing of homework and test dates follows at the end of the syllabus.

Department Final, 1 p.m., Saturday, December 7, 2019. This exam will count 30% of the course grade. **A score of 50% or above on the exam is necessary for the student to receive "C" credit in the class.** Scientific calculators may be used on the exam at the discretion of the instructor, but no graphing calculators may be used on this exam.

ALEKS	–	20%
Attendance/Participation	–	5%
Exams (five in total)	–	45%
Comprehensive Final	–	30%

Important Academic Dates

For fall semester 2019, classes begin August 19, 2019 and end December 5, 2019. The last date to drop a class and receive a W (withdrawn) instead of F (failed) is October 29, 2019. There are no classes on September 2, October 12 – 15 and November 27 – December 1, 2019. The final exam period is December 7, 2019.

Disabilities

If you have a physical, psychiatric/emotional, or learning disability that may impact on your ability to carry out assigned course work, I encourage you to contact the Office of Disability Services (DS).

The office is located in Grace Wilkie, room 203, (316) 978-3309 (voice/tty) (316-854-3032 videophone). DS will review your concerns and determine, with you, what academic accommodations are necessary and appropriate for you. All information and documentation of your disability is confidential and will not be released by DS without your written permission.

Counseling & Prevention Services

WSU Counseling & Prevention Services (CAPS) provides quality mental health services to enrolled students by licensed providers and presents programs and trainings on topics promoting personal growth and optimal wellbeing. Services are by appointment, low cost and confidential. They are located in room 320 of Grace Wilkie Hall and will move to the new YMCA/Student Wellness Center in January. Their phone number is (316) 978-3440. CAPS is open during regular University business

hours. If you have a mental health emergency while Counseling & Prevention Service is not open, please call 911 or COMCARE Crisis Services at (316) 660-7500 for 24 hour assistance.

Diversity and Inclusion

Wichita State University is committed to being an inclusive campus that reflects the evolving diversity of society. To further that goal, Wichita State University does not discriminate in its employment practices, educational programs or activities on the basis of age (40 years or older), ancestry, color, disability, gender, gender expression, gender identity, genetic information, marital status, national origin, political affiliation, pregnancy, race, religion, sex, sexual orientation, or status as a veteran. Retaliation against an individual filing or cooperating in a complaint process is also prohibited. Complaints or concerns related to alleged discrimination may be directed to the Office of Institutional Equity and Compliance, Wichita State University, 1845 Fairmount, Wichita, KS 67260, telephone 316-978-3187.

Intellectual Property

Wichita State University students are subject to Board of Regents and University policies (see http://webs.wichita.edu/inaudit/ch9_10.htm) regarding intellectual property rights. Any questions regarding these rights and any disputes that arise under these policies will be resolved by the President of the University, or the President's designee, and such decision will constitute the final decision.

Shocker Alert System

Get the emergency information you need instantly and effortlessly! With the Shocker Alert System, we will contact you by email the moment there is an emergency or weather alert that affects the campus. Sign up at www.wichita.edu/alert.

Student Health Services

WSU's Student Health Services (SHS) provides professional medical care and health education to enrolled students by licensed health care providers. General health care services are available ranging from routine and preventive care to managing acute illnesses and minor injuries. SHS offers convenient onsite laboratory and medication services including vaccinations. Staff are available to provide health education on a variety of topics, both in and out of the classroom setting. SHS is located in 209 Ahlberg Hall and will move to the new YMCA/Student Wellness Center in January 2020. Hours are 8:00 a.m. to 5:00 p.m., Monday through Friday, and the phone number is (316) 978-3620. Check out www.wichita.edu/shs for health information and access to myShockerHealth, the online patient portal where students can schedule appointments, send a secured message to a healthcare provider, check immunizations and more. All services are confidential.

Title IX

Wichita State University is committed to the elimination of sexual misconduct, relationship violence, and stalking within the University community. These incidents may interfere with or limit an individual's ability to benefit from or fully participate in the University's educational programs. Students are asked to immediately report incidents to the University Police Department, (316) 978-3450 or students may contact Sara Zafar, J.D., Title IX Coordinator at (316) 978-5177 or Sara.zafar@wichita.edu.

Students may also report incidents to an instructor, faculty or staff member, who are required by law to notify the Title IX Coordinator. If a student wishes to keep the information confidential, the student may speak with staff members of the Counseling and Prevention Services (316) 978-3440 or Student Health Services (316) 978-3620. For more information please refer to the Title IX Policy at https://www.wichita.edu/about/policy/ch_08/ch8_16.php.

The Heskett Center and Campus Recreation

Whether you are wanting to be active on campus, relieve the stress from classes or take care of your body, Wichita State Campus Recreation is the place for you. Campus Recreation, located inside the Heskett Center, contributes to the health, education, and development of Wichita State University students, faculty, staff, alumni, and community members by offering quality programs and services. With many programs and facilities which are free to all students and members, Campus Recreation offers its members limitless opportunities. For more information about our services see www.wichita.edu/heskett.

Video and Audio Recording

Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. Unless explicit permission is obtained from the instructor, recordings of lectures may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course.

CARE Team

Wichita State University is committed to the safety and success of and cares about all members of the University community. If you or someone you know needs support, is distressed, or exhibits concerning behavior that is interfering with their own or others' academic or personal success or the safety of members of our community, resources and assistance are available. As your Faculty, I may seek support for you. If you or another member of our campus community is in need of help, please submit a concern at www.wichita.edu/ubit or call any CARE team member listed on that webpage. In case of emergency, please call the University Police Department at (316) 978-3450 or 911.

Concealed Carry Policy

The Kansas Legislature has legalized concealed carry on public university campuses. Guns must be out of view, concealed either on the body of the carrier, or backpack, purse or bag that remains under the immediate control of the carrier. Gun owners must familiarize themselves with WSU's Concealed Carry Policy at http://webs.wichita.edu/?u=wsunews&p=/weapons_policy_documents and the Kansas Board of Regent's policy at http://www.kansasregents.org/about/policies-by-laws-missions/board_policy_manual_2/chapter_ii_governance_state_universities_2/chapter_ii_full_text#weapons. If you believe that there has been a violation of this policy, please contact the University Police Department at (316) 978-3450.

Names and Pronouns

Everyone has the right to be addressed as and referred to by the name and pronouns (including non-binary pronouns) that they choose and that correspond to their gender identity. Class rosters have a student's legal name and do not include pronouns, therefore, all students will be asked in class to indicate the names and pronouns they use for themselves. A student's chosen name and pronouns are to be respected at all times in the classroom.

First Generation Students

A first-generation (FGEN) college student is a student whose parents did not complete a four-year college degree. WSU strongly supports First Generation students and offers the following resources https://www.wichita.edu/student_life/firstgen/index.php.

Other

Students will be offered several forms of assistance to reach success.

- The instructor will be available for assistance at posted office hours or by appointment when needed.
- Technology assistance through ALEKS: an interactive textbook, section videos, homework help tools, etc.
- The Mathematics Department has a tutor lab available on the third floor of Jabara Hall. It is generally open 8 am – 7 pm Monday through Thursday and 8 am – 1 pm on Friday.
- Students are encouraged to form study groups or work with a study partner.
- Online resources, such as the brief videos at Khan Academy, are available that might supplement the lectures.

Tentative Schedule for 16 week class –

Objectives for each week in ALEKS will be due every Sunday at 11:59pm.

The schedule below is subject to change.

Week	Date	Topics, Readings, Assignments, Deadlines
1	8/19-8/23	Introductions, Sections 1.1 – 1.3
2	8/26-8/30	Sections 1.4 and 1.6
3	9/2-9/6	Sections 1.6
4	9/9-9/13	Sections 1.7, Exam 1
5	9/16-9/20	Sections 2.1 – 2.3
6	9/23-9/27	Sections 2.4 – 2.6
7	9/30-10/4	Sections 2.6, 2.7, Sections 2.8
8	10/7-10/11	Exam 2, 3.1 and 3.2
9	10/14-10/18	Fall Break, Section 3.3
10	10/21-10/25	Sections 3.3, 3.4 and 3.6
11	10/28-11/1	Sections 3.7, Exam 3, Section 4.1
12	11/4-11/8	Sections 4.2 – 4.5
13	11/11-11/15	Section 4.5, Exam 4, Section 5.1
14	11/18-11/22	Sections 5.1, 5.2 and 5.5
15	11/25-11/29	Sections 8.1 – 8.3, Thanksgiving Break
16	12/2-12/6	Exam 5
Final	12/7	Comprehensive Final Exam: 1 – 2:50pm

