

MATH 004

Intermediate Algebra

Sample Syllabus

Description

MATH 004 Intermediate Algebra (3 semester hours) Algebraic expressions; linear, absolute value Equations and inequalities; lines; systems of linear equations; integral exponents; polynomials; factoring. This course may not be used to satisfy the basic minimum requirements for graduation in any Baccalaureate degree program.

Prerequisite

Basic arithmetic skills or satisfactory performance on the mathematics proficiency examination, Students who do not meet the prerequisite may have great difficulty in the course.

Objectives

- Unit 1
 - Simplify numerical expressions.
 - Perform arithmetic operations with real numbers.
 - Apply properties of real numbers to simplify expressions.
 - Evaluate exponential expressions.
 - Simplify and evaluate algebraic expressions.
- Unit 2
 - Solve first-degree equations.
 - Use equations to solve word problems.
 - Solve equations involving fractions or decimals.
 - Solve word problems involving discount and. selling price, simple interest, and mixtures.
 - Solve inequalities and write solution sets in interval notation.
 - Solve inequalities involving fractions or decimals.
 - Solve compound inequalities.
 - Use inequalities to solve word problems.
 - Solve equations and inequalities that involve absolute value.
- Unit 3
 - Determine the slope of a line and use slope to graph lines.
 - Determine the point-slope equation of a line.
 - Determine the slope-intercept equation of a line.
 - Find equations for parallel or perpendicular lines.
 - Find and graph solutions for linear equations in two variables.
 - Graph linear equations by finding the x and y intercept.
 - Graph lines passing through the origin, vertical lines, and horizontal lines.
 - Use the distance formula.
 - Solve systems of linear equations by graphing and substitution.
- Unit 4
 - Add, subtract, and multiply polynomials.
 - Divide monomials.
 - Factor out the greatest common factor.
 - Factor by grouping.
 - Factor the difference of two squares and the sum or difference of two cubes.

- Factor trinomials by trial-and-error and the four-step method.
- Solve polynomial equations by factoring.

Materials

- An 18 week Access to ALEKS 360 is needed to provide access to the eBook and supplementary materials www.aleks.com . This can be purchased separately or with the book.
- ALEKS Course Code : MNPMR-LFYMA

Textbook

Intermediate Algebra with P.O.W.E.R Learning 1st edition, Messersmith, Perez, Feldman

- eBook with 1 semester ALEKS 360 access (18 weeks) ISBN-10: 0077528530
- Paperback (ALEKS access not included) ISBN-10: 0073406279

Grading

Conceptual	Basic Skills	Exams
200 Points	350 Points	450 Points
4 Piazza Participations (25 points each)	4 Scheduled ALEKS Assessments (20 each)	Final Exam Proctored (250 points)
4 Concept Quizzes (25 points each)	4 Unit ALEKS Quizzes (20 each)	Midterm (200 points)
	4 ALEKS Unit Completion (30 each) Midterm and Final ALEKS Units (35 each)	

Grade Scale

Letter Grade	% Course Grade
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	< 59%

Examity

In this class you may take your tests remotely and they will be proctored by a service called Examity®. Please log in as soon as possible to set up your profile. You will not be able to schedule exams until your profile is complete. Examity® system requirements are:

- Desktop computer or laptop (tablets, Chromebook and cell phones do not meet our requirements).
- Webcam and microphone (built-in or external).
- Connection to network with sufficient internet speed: at least 2 Mbps download speed and 2 Mbps upload.
- Operating systems: Windows XP–Windows 10, Mac OS X 10.8 (Mountain Lion)–10.11 (El Capitan).
- Browser with pop-up blocker disabled: Google Chrome v39 or later, Mozilla Firefox v34 or later, Internet Explorer v8 or later, Microsoft Edge, Apple Safari v6 or later.

After you create your Examity profile, you will have the option to schedule proctoring times for each of your exams. On the day of your exam, go to your Examity dashboard using the single sign-on link and select the 'Start Exam' button to meet your proctor.

Examity Proctors

Examity's proctors are highly-trained individuals who go through a rigorous process of selection, including background checks and comprehensive training. All proctors have a college degree, advanced technical and communication skills, and have completed online courses.

Proctoring Terms of Service

This course may require you to take exams using certain proctoring software that uses your computer's webcam or other technology to monitor and/or record your activity during exams. The proctoring software may be listening to you, monitoring your computer screen, viewing you and your surroundings, recording and storing any and all activity (including visual and audio recordings) during the proctoring process. By enrolling in this course, you consent to the use of the proctoring software selected by your instructor, including but not limited to any audio and/or visual monitoring which may be recorded. Please contact your instructor with any questions.

This information is provided by [Penn State World Campus](#)

If you have any technical questions or concerns, contact Examity's support team 24/7 via [email](#) or phone at (855) 392-6489.

Academic Integrity

Academic integrity is the pursuit of scholarly activity in an open, honest and responsible manner. Academic integrity is a basic guiding principle for all academic activity at The Pennsylvania State University, and all members of the University community are expected to act in accordance with this principle. Consistent with this expectation, the University's Code of Conduct states that all students should act with personal integrity, respect other students' dignity, rights and property,

and help create and maintain an environment in which all can succeed through the fruits of their efforts.

Academic integrity includes a commitment by all members of the University community not to engage in or tolerate acts of falsification, misrepresentation or deception. Such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others.

Accommodating Disabilities

Penn State welcomes students with disabilities into the University's educational programs. Every Penn State campus has an office for students with disabilities. The [Student Disability Resources \(SDR\) website](#) provides contact information for every Penn State campus. For further information, please visit [Student Disability Resources website](#).

In order to receive consideration for reasonable accommodations, you must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: [See documentation guidelines](#). If the documentation supports your request for reasonable accommodations, your campus disability services office will provide you with an accommodation letter. Please share this letter with your instructors and discuss the accommodations with them as early as possible. You must follow this process for every semester that you request accommodations.

Counseling and Psychological Services

Many students at Penn State face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

- [Counseling and Psychological Services at University Park \(CAPS\)](#): 814-863-0395
- [Counseling and Psychological Services at Commonwealth Campuses](#)
- Penn State Crisis Line (Available 24 hrs, 7 days a week): 877-229-6400
- Crisis Text Line (Available 24 hrs, 7 days a week): Text LIONS to 741741

Educational Equity / Report Bias

Penn State takes great pride to foster a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, or harassment due to age, ancestry, color, disability, gender, gender identity, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated and can be reported through Educational Equity via the [Report Bias website](#).