UNIVERSITY OF THE INCARNATE WORD
Extended Academic Programs
MATH 1304 College Algebra
COURSE OUTLINE

See Instructor Section of Blackboard Course for More Information

Overview of the Course
Designed to compress a sixteen week curriculum into eight weeks, this course reviews high school algebra and focuses on providing the numeric, critical thinking skills students will need to progress through their undergraduate curriculum. Assessment is based on class discussions, weekly homework and quizzes, and a single final exam.

Study Topics:
- Number systems
- Equations and Inequalities
- Functions
- Linear Functions
- Polynomial and Rational Functions
- Exponential and Logarithmic Functions
- Systems of Equations

Description of the course:
This course covers algebraic operations, functions and functional notation; polynomial equations and inequalities; graphing techniques, graphs of polynomial and rational functions; logarithms and exponentials; and, problems from the physical and social sciences and business. It can be used to satisfy the core requirement in mathematics for students in certain major programs, as well as enhance those programs with a strong mathematics component. Prerequisite: Placement at college level according to UIW math placement policy or completion of MATH 0319.This course serves as a prerequisite for MATH 1311. It will not count as an elective for mathematics majors.

This course is part of: General Education Core Course This course may be offered in a face-to-face, blended and online format.

Outcomes	**Assessments will be a combination of the following**
1. Communicate and apply quantitative information verbally, symbolically, numerically, and graphically 2. Apply basic algebraic operations using vocabulary, notation, and various approaches to problem solving 3. Solve mathematical problems which imply the application of equations and inequalities, graphs, polynomial,	Written and/or oral discussion, examinations, class exercises, and/or presentations (individual or group)

rational, exponential, and logarithmic functions	

Course Outline

Week	Chapter Readings and Discussions	In Class and Homework Assignments
Week #1	Chapter 1 Prerequisites Discussion: Math Phobia, Absolute Value, Bio	Homework/Class Activities (3) Course Materials Practice (2) Paper/Discussion/Participation (1)
Week #2	Chapter 2 Equations and Inequalities Discussion: Complex Numbers, Interval Notation	Homework/Class Activities (3) Course Materials Practice (2) Paper/Discussion/Participation (1)
Week #3	Chapter 3 Functions Discussion: What is a Function?, Domain & Range	Homework/Class Activities (3) Course Materials Practice (2) Paper/Discussion/Participation (1)
Week #4	Chapter 4 Linear Functions • Section 1 Linear Functions Chapter 5 Polynomial and Rational Functions • Section 1 Quadratic Functions • Section 2 Power Functions and Polynomial Functions • Section 3 Graphs of Polynomial Functions Discussion: Linear Function Sufficiency, Parallel & Perpendicular Lines, Slope & Intercepts	Homework/Class Activities (3) Course Materials Practice (2) Paper/Discussion/Participation (1)
Week #5	Chapter 5 Polynomial and Rational Functions • Section 4 Dividing Polynomials • Section 5 Zeros of Polynomial Functions • Section 6 Rational Functions • Section 8 Modeling Using Variation)	Homework/Class Activities (3) Course Materials Practice (2) Paper/Discussion/Participation (1)

	Chapter 6 Exponential and Logarithmic Functions • Section 1 Exponential Functions • Section 3 Logarithmic Functions Discussion: Constant of Variation, Polynomial Discoveries	
Week #6	Chapter 6 Exponential and Logarithmic Functions • Section 5 Logarithmic Properties • Section 6 Exponential and Logarithmic Equations Chapter 7 Systems of Equations • Section 1 Systems of Linear Equations: Two Variables • Section 2 Systems of Linear Equations: Three Variables Discussion: Logarithmic Scales, Systems of Equations Applications	Homework/Class Activities (3) Course Materials Practice (2) Paper/Discussion/Participation (1)
Week #7	Discussion: Key Terms	Homework/Class Activities (3) Course Materials Review (2) Paper/Discussion/Participation (1)
Week #8	Discussion: Algebra Facts	Class Activities (3) Course Materials Review (2) Paper/Discussion/Participation (1) Final Examination

Total 48 hours

Note: Each week you will notice a number in parentheses. This is the Alternative Learning Equivalencies for this course. It is an expectation for the minimum amount of time (hours) you will spend on each topic during the week. Its primary purpose is for accreditation.

Grading Activities Criteria and Guidelines

Grading Standards:

Discussion/Participation	20%
Homework/Assignment	15%
Research Paper/Project	15%
Midterm Examination	25%
Final Examination	25%
Total	**100%**

Grading Scale:

A	93 - 100	B-	80 - 82	D+	67 – 69
A-	90 - 92	C+	77 - 79	D	63 – 66
B+	87 - 89	C	70 - 76	D-	60 – 62
B	83 - 86	There is no C- grade at UIW		F	< 60

A and A- indicates a superior grasp of the subject matter of the course, initiative and originality in attacking problems, and ability to relate knowledge to new situations.
B+, B, and B- indicates better than average grasp of the subject matter of the course and ability to apply principles with intelligence.
C+ and C indicates an acceptable grasp of the essentials of the course.
D+, D, and D- indicates less than average performance in the course.
F indicates failure to master the minimum essentials of the course. The course must be repeated.

Course Materials

- Optional: Pencils, scratch paper, erasers, and graph paper/ruler for sketching graphs
- Optional: TI-84 Plus calculator or
    - Free Wabbit 84 Plus ROM. Here are installation instructions

eBook

Your electronic book is available as PDF download under the Course Outline and Book page in Blackboard: College Algebra by Jay Abramson et al, published by OpenStax.org.

Math Learning Management System (LMS)

You will access homework, quizzes, final exam and optional study problems via Blackboard, but they are hosted by a third party site.

1. In Blackboard, click Course Outline Prerequisite Assignment in Weekly Lessons folder
2. On the Welcome page click '**register as a new student**', if prompted
3. If requested, enter the CourseID: **xxxxx**
4. If requested, enter the Enrollment Key: **xxxxxxxx**

Please DO NOT go directly to the vendor site and create a separate account as your scores would not sync with the Blackboard grading system and you would not receive credit.

Discussion
Students are encouraged to use outside materials and examples in class discussions, whether online (in online version of the class) or on-ground. Constructive class contribution includes being present, engaged, and professional. We will try to spend time each class discussing content in addition to

lectures. Students will be expected to participate in discussion by asking questions, sharing examples, presenting arguments, and sharing real-world applications.

Participation, Punctuality and Attendance: Requirements and Expectations for In-person Classes

- Attendance: Abide by the UIW Attendance Policy as stated in the Catalog: https://uiw.smartcatalogiq.com/en/2019-2020/Catalog/VII-Institutional-Academic-Policies/Attendance-and-Religious-Observance-Policies
- Eating and Smoking: NOT ALLOWED in class
- Talking and Messaging using mobile devices: NOT ALLOWED in class
- Copies of homework, tests, exams, and e-mail communication: Save for your records
- Assignments and homework with due dates: Expected to be turned-in on time

Homework Rubric

Use APA style writing as the standard format. Homework will be graded using the rubric below:

Homework/Quiz/Final Exam Rubric				
Mastery	90 - 100% Excellent Mastered all/almost all topics	80 – 89% Good Above average mastery of topics	70 – 79% Fair Average mastery of topics	Below 70% Poor Poor/no mastery of topics
Timeliness	No deductions On time	Minus 10 points < 24 hours late	Minus 20 points Between 24 and 48 hours late	Minus 30 points > 48 hours late

Discussion Rubric

	"A" Range **90-100%**	**"B" Range** **80-89%**	**"C" Range** **70-79%**	**"F" Range** **0-69%**
Quality and Substance **34%**	Initial post shows very strong explanations to demonstrate knowledge of the concepts in application. Postings are well developed and provide clear evidence of critical thinking. Questions and observations consistently add depth and	Initial post shows an understanding of the concepts. Postings are adequately developed and easy to understand by your colleagues. Questions and observations help move the conversation along through expanding current ideas and discussion.	Initial post occurs shortly after 5 p.m. CT Wednesday night. Or, initial post shows an inconsistent knowledge of the concepts. Postings may be hard to follow or missing important information to explain your thinking. Questions and observations	Frequently uses a wide range of concepts. Initial post occurs well after 5 p.m. CT Wednesday night. Or, initial post is missing or does not utilize ideas presented in the course material. Post may be off topic or simply reiterate what was said in the articles.

	substance to the discussion with new ideas.		may be rudimentary and add little value to the continuation of the discussion.	Questions and observations may also be missing or be superficial and add no value to the ongoing discussion. pts from the class materials, demonstrating competence and accuracy in the use of concepts.
Organization **33%**	You share your ideas early in the week to allow colleagues to have time to consider and respond. The number of substantive comments to colleagues exceed the requirement of the course. You also engage your peers consistently throughout the week.	Your initial postings and responses to classmates meet the deadlines as described in the assignment. The number of comments to colleagues also meet the necessary frequency, but there is room for improvement in terms of consistency.	Your initial postings may be inconsistent or submitted past the initial deadline and/or at the very last possible time, making it difficult for others to respond. Your responses to the postings of others may be late.	Your initial posting may appear after the deadline and provide no opportunity for classmates to respond within the time frame required. Responses to others are either non-existent or after the assignment deadline.
Grammar **33%**	Your writing is clear with almost no grammatical errors or structural issues. You exhibit an openness and willingness for discussion in the tone and manner of your postings and responses to feedback.	Your comments build on the prior posts. Your writing is understandable and open-ended to the degree that others can comment. Your tone with others is acceptable for further conversation. Posts contain only minor grammatical errors and structural issues.	Your writing is difficult to understand at times or seemingly incomplete. It is difficult at times for peers to see how to respond. Feedback to the posts of others may have a critical tone or be written in a way that inhibits conversation. There are also too many	Writing appears to be careless or incomplete. Observations are not offered that allow for additional conversation. Tone of responses to others may be defensive or uninviting. Finally, there may be serious grammatical

			grammatical errors and structural issues.	errors and structural issues.

Tutoring

Some students may require live, personalized tutoring outside of class. UIW offers math tutoring year round. See the Tutoring Services web page at sites.uiw.edu/tutoringservices, email tutoringservices@uiwtx.edu, or call (210) 829-3870 for details. This term, the UIW School of Professional Studies offers math tutoring every Saturday from 8:30am to 1:30pm at the Northwest Center (usually in room 111). Here are two other tutoring web sites recommended by students: sanantonio.universitytutor.com/College_Algebra and www.wyzant.com/TutorSearch. You can find good tutors locally or online through a simple Google search.

Academic Integrity Policy

University of the Incarnate Word is strongly committed to the nurturing of academic excellence. The University expects its students to pursue and maintain truth, honesty, and personal integrity in their academic work. Academic dishonesty, in any form, constitutes a serious threat to the freedoms, which define an academic community. The following definitions and guidelines have therefore been established to secure the maintenance of academic integrity at Incarnate Word.

UIW Course Policies, Guidelines and Accommodations

This course complies with all UIW academic policies and federal guidelines, including but not limited to: academic integrity, disability accommodations, pregnancy accommodations, Title IX non-discrimination, and class absences for religious observances. Current policy statements will be provided to all students through the learning management system and in information provided on the first day of class. Hyperlink takes you to Blackboard, please click on UIW Course Policies, Guidelines and Accommodations tab.

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