



Basic Algebra & Trigonometry

WW-MATH 106

EagleVision

Course Syllabus

Worldwide 2025-01 January

Course Information

Term Dates: Jan 13, 2025 - Mar 16, 2025

Credit Hours: 3

Meetings: 18:00 - 21:20 Tuesday Time Zone: Eastern

Location: *EagleVision Classroom

Delivery Method: EagleVision Classroom/Blended

Instructor Information

Name: Deirdre Toney

Email: toneyd1@erau.edu

Office Hours: Mondays 0700 - 0800 JST/ Sundays 1700 - 1800 EST. Other times available by request

Required Course Materials

Title: College Mathematics for Trades and Technologies

ISBN: 978-0137889891 MyLab Math Canvas with Direct Integration for ERAU WW:
Ebook and digital access code

ISBN2: 978-0137889945 MyLab Math Canvas Direct Integration for ERAU WW: Ebook
and physical access code

ISBN3: 978-0138290917 MyLab Math Canvas with Direct Integrated for ERAU WW:
Print book and physical access code

Authors: C. Cleaves and M. Hobbs

Publisher: Pearson Education, Inc.

Publication Date: 2018

Edition: 10th

Format: Textbook and Access Code

Notes

You must purchase the ebook and access code through the Worldwide Bookstore or Pearson via Canvas. If you purchase an access code through online retailers that specialize in used items, it will not be guaranteed by Pearson.

Catalog Course Description

Study of the basic laws of numbers, fractions, exponents, complex numbers, and radicals, as well as an understanding of a variety of expressions and equations including equalities, inequalities, polynomials, and quadratics. Introduction to the basic elements of trigonometry.

Prerequisite(s):MATH 106 Prerequisite is MATH 100 or qualifying score on the ERAU mathematics skills assessment.

Lecture Hours

Lecture hours per week (4:45 hours)

Course Goals

This course is designed to provide the fundamentals of Algebra and Trigonometry necessary for advanced college mathematics courses.

Student Learning Outcomes

1. Use properties of real numbers and integer exponents to simplify algebraic expressions and solve equations.
2. Solve problems represented with linear, rational, and quadratic equations or formulas by using properties of equality, factoring and quadratic formula.
3. Solve systems of linear equations in two variables.
4. Use graphical representations of lines and curves to investigate relationships involving data, slope and intercepts.
5. Solve mathematical problems involving polygons, circles and basic trigonometric functions with right triangles in order to reason about and find solutions to real-world problems.

Program Outcomes

PO7 - Use digitally-enabled technology to organize and manipulate data, perform calculations, aid in solving problems, and communicate solutions, ideas, and concepts

Grading

Scale	Grade
90 - 100	A (Superior)
80 - 89	B (Above Average)
70 - 79	C (Average)
60 - 69	D (Below Average)
Below 60	F (Failure)

Evaluation Items & Weights

Skills Practice and Review	20%
Skills Check	20%
Show Work	20%
Discussions	20%
Reflection Assignments	10%
In-class Activities	10%
Total	100%

Skills Practice

Skills Practices and Reviews are delivered via MyLab in Modules 1-9. Students will receive the same questions but different variable values in these assignments. You can work on the problem set and make use of systematic instructions, examples of similar problems, access the online textbook, and other multimedia resources up until the due date. You have unlimited chances to submit an answer to each question. A 10% per day penalty is applied to questions answered after the due date.

Skills Check

The Midterm MyLab Skills Check and Final MyLab Skills Check will include problems related to sections of the online course textbook assigned in the previous modules. The

Midterm covers Modules 1-4, and the Final covers Modules 5–9. The checks are administered via MyLab. Each Skills Check has a single opportunity to answer the set of questions with no time limit. Once the Skills Check has begun, students must complete it. Students are required to submit their mathematical computations in the Show Work Assignment, where the instructor can give precise feedback about procedural errors.

Important Note | Integrity Declaration: There is a student integrity declaration activity before each Skills Check. You cannot access the Skills Check in Module 5 (Midterm) and Module 9 (Final) until you complete the integrity declaration activity. In the activity, you must "Agree" to the integrity statement. By selecting "Agree" to the integrity declaration statement, you declare that the work in the Show Work document is entirely your own and you have not shared it with anyone else. Read the next paragraph for details about Show Work.

Show Work

Following the Midterm MyLab Skills Check and Final MyLab Skills Check, students must upload the mathematical computations they worked out on paper during each Skills Check within 30 minutes of completing the MyLab Skills Check. The instructor is looking for particular steps on some questions and will deduct points if no work is shown, even if MyLab marked your answer correctly. Partial credit may be added to the score in MyLab if the work shows that the machine grading did not reflect the student's understanding of the topic being assessed. Most grading adjustments based on the submitted work will happen in MyLab, and the Show Work assignment will earn the same score as the exam; on rare occasions, a mismatch will be explained in the grading feedback from the instructor. If no Show Work is submitted within the time limit, a zero will be recorded. Students are encouraged to complete the optional activity once in Module 2, 3, or 4 on submitting Show Work to obtain feedback from their instructor.

Discussions

Discussion assignments are included in each module week. Modules 6 and 7 include smaller group discussions. It is essential to post by the fourth day of the module week, in order to give enough time for students to reply to classmate's initial post. Modules 5 and 9 are virtual study halls to help prepare you for the Skills Check. It is suggested to start those on Monday of the module week. Participation is a crucial part of online learning. Students are not restricted on the amount of interaction in this course; it is highly encouraged.

All students must post a solution attempt for each discussion in their own words; cutting/pasting from someone else's work is detectable and will not be tolerated. Take note to follow the directions in the Module 8 Discussion, as students must submit their initial reply to Turnitin before submitting the initial reply to the discussion forum.

Reflection Assignments

Students will submit a short reflection paper at the end of Modules 5 and 9. The reflection covers past, current, and future applications of topics covered in previous modules. Students will also reconsider the General Education Competencies and their role outside of math and in their current and future careers.

Class Activities

Designated by each instructor for the work accomplished during class.

Additional Information

Please note that you may be able to see the course content up to 4 (four) days prior to the official term start date. However, you will not be able to actively participate in the course (e.g., submit assignments, participate in discussions, receive credit for an activity, etc.) until 12am on the official day of term start.

APA Format

Go to the [APA website](#) for additional information about the *American Psychological Association Publication Manual*.

Library

Embry-Riddle Aeronautical University has one of the most complete library collections of aviation-related resources in the world. The Hunt Library is the library for all Worldwide students regardless of location. For help finding resources for your assignment, project, or topic, or to learn more about the library services available to you, please contact our librarians using the following information:

- [Hunt Library Worldwide: Information, Services, Help](#)
 - [Library Basic Training](#)
 - [Ask-a-Librarian](#)
 - [Library Hours](#)
- [Contact Information](#)

- Email: library@erau.edu

TITLE IX

The Title IX Office oversees compliance of Title IX Sexual Harassment in accordance with Federal Regulations, as well as incidents falling under the University Sexual Misconduct policy. Policy violations can include sex discrimination, sexual harassment, or sexual violence, such as rape, sexual assault, relationship / dating violence, sexual misconduct, and stalking.

Anyone **may** report suspected or known violations to the Title IX Office and may be able to receive supportive measures. Please see the Title IX website for additional information.

WW Title IX Office

Email: wwtitle9@erau.edu

Website: <https://worldwide.erau.edu/administration/title-ix-compliance>

[Online Complaint Form](#)

Tutoring

Free tutoring for this course is available via a link in the Canvas navigation menu. The Course Specific module includes a page describing the services available.

Course Policies

1. **Plagiarism:** Presenting as one's own the ideas, words, or products of another. Plagiarism includes use of any source to complete academic assignments without proper acknowledgment of the source. All papers submitted for grading in this course will be submitted to Turnitin where the text of the paper is compared against information contained in the Turnitin database. Papers submitted will be included in the Turnitin database and become the source documents for the purpose of detecting plagiarism.

2. **Cheating:** A broad term that includes the following:

- Giving or receiving help from unauthorized persons or materials during examinations.
- The unauthorized communication of examination questions prior to, during, or following administration of the examination.
- Collaboration on examinations or assignments expected to be individual work.
- Fraud and deceit, that include knowingly furnishing false or misleading information or failing to furnish appropriate information when requested, such as when applying for admission to the University.

3. The most current **APA Edition** format is the ERAU Worldwide standard for all research projects

4. Course-Specific Policies:

- **Blended Learning Policy:** This course is offered in blended format; 70% of the required course will be conducted in-class and 30% will take place online in Canvas. Class meetings will be composed of lectures, audio-visual presentations, discussions, exercises (also in small groups), student presentations and other course activities. Online activities will include discussion with classmates, posting of your work, reviewing classmates' work, and feedback from the instructor on your work. During the first face-to-face session, we will thoroughly review the online Blended Course Activities.

- **Missed Class Policy:** You are required to attend each live class in its entirety. Grade penalties of 10% of the final grade will be incurred for each unexcused absence, and for each excused absence for which you do not complete the missed class make-up assignment. Notify the instructor as soon as possible if you will not be present or if you will miss part of class. Excused absences may require third party documentation. If you miss any part of class, you must review the EagleVision recording and complete the make-up work assigned to you by the instructor.
- **Late Work Policy:** All course work is expected to be completed on time and should be submitted before 11:59 PM ET on the date indicated in the Course Schedule below. Unless otherwise specified in this document, late work will be downgraded 10% for each day it is past due, up to 5 days beyond the deadline. After that, a permanent score of zero (0) will be entered in the Canvas Grades area. Please coordinate with the instructor as soon as possible if you know your assignment will be late. In some special cases, a penalty-free extension might be granted if you provide your expected date of submission in addition to the reason you cannot make the deadline (expect to provide supporting documentation). Keep in mind that you are always allocated a sufficient time to complete your assignments, so difficulties encountered less than 24 hours prior to the deadline will not be viewed in a favorable light.

Exceptions: Instructors may choose to develop and implement their own policies regarding the following:

1. Discussion boards (initial posts and replies to classmates)
2. Assignments submitted after the last class day
3. Assignments submitted using third-party integrations

Any such deviations must be clearly posted in the Instructor Bio & Policies page.

EagleVision Web-Conferencing and Technology

EagleVision courses utilize Zoom, web conferencing software that enables students and instructors to connect in real-time through the use of web cameras, microphones, file sharing, chat and more. Students are expected to participate using audio and/or video when requested by the instructor. Review the [Computer Requirements for Worldwide Courses](#) and run the [ERAU Computer Check](#) to verify your computer meets the technical specifications and system requirements prior to your first class.

Visit the [EagleVision](#) ERNIE page for details on using the application, to join a test meeting, and to confirm that your equipment meets the requirements.

Students not in compliance with equipment requirements can be withdrawn at the second class meeting.

It is in your best interest to become familiar with the application ahead of the first class, so you know how to interact with your instructor and classmates. Attend class in an area where there are no distractions (TV, kids, phones, etc.) to impede your learning, the instructor's teaching, or your classmates' attention.

Disability and Special Needs

Disability Services Support

ERAU-WW is committed to the success of all students. It is a University policy to provide reasonable accommodations to students with disabilities, who qualify for services. If you would like to request accommodations due to a physical, mental or learning disability, please visit the [Worldwide Student Accessibility Services page](#) or contact our office at 386-226-7334 or via email at wwsas@erau.edu. ALL DISCUSSIONS ARE CONFIDENTIAL.

Mental Well-Being Statement

ERAU recognizes that life stressors, such as depression, anxiety, alcohol/drug problems, relationship problems and various other experiences can hinder the learning process. All ERAU students have access to free, confidential counseling through TELUS Health. You can access a counselor 24/7 via phone, computer or chat in the Student Support app. Please download the app or add the link to your computer and consider using this

valuable resource during your educational journey at ERAU. More information on TELUS can be found on the [WW Dean of Students ERNIE page](#).

Course Schedule

Module 1 Review of Real Numbers & Solving Equations - Learning Outcomes 1 and 2

Readings: Sections 1.1 through 1.3, 2.1 through 2.4, and 5.1 through 5.6

Discussions (BL): Introductions and Career Connections

MyLab Assignments: Prerequisite Skills Practice and M1 Skills Practice

Module 2 Linear Equations & Graphs - Learning Outcomes 2 and 4

Readings: Sections 9.1 through 9.4; optional 7.4 & 7.5

Discussion (BL): A Formula Investigation

MyLab Assignments: M2 Skills Practice

Module 3 Linear Systems & Polynomial Basics

Readings: Sections 10.1, 10.2, 10.4, 11.1 and 11.2

Discussion (BL): Interpreting Lines

MyLab Assignments: M3 Skills Practice

Module 4 Roots & Radical Expressions

Readings: Sections 11.3 and 12.1 through 12.4

Discussion (BL): Profit and Loss Analysis in Business

MyLab Assignments: M4 Skills Practice

Module 5 Variation and Midterm Skills Check

Readings: Sections 8.2 through 8.4

Discussion (BL): Midterm Skills Check Study Hall

MyLab Assignments: M5 Skills Practice, M5 Midterm Skills Review, and Midterm Skills Check

Show Work: Upload handwritten work within 30 minutes of completing the Midterm in MyLab

Assignment: Midterm Reflection

Module 6 Factoring

Readings: Sections 13.1 through 13.3 and 14.1

Discussion (BL): Factor Practice (in small groups)

MyLab Assignments: M6 Skills Practice

Module 7 Solving Quadratic Equations

Readings: Sections 14.2 and 15.1 through 15.4; optional 14.3 and 14.4

Discussion (BL): Early Thoughts on the Greatest Common Divisor (in small groups)

MyLab Assignments: M7 Skills Practice

Module 8 Geometry

Readings: Sections 17.1 through 17.4, 18.1 and 18.2

Discussion (BL): Hidden Figures

MyLab Assignments: M8 Skills Practice

Module 9 Trigonometry and Final Skills Check

Readings: Sections 19.1 and 19.2

Discussion (BL): Final Skills Check Study Hall

MyLab Assignments: M9 Skills Practice, M9 Final Skills Review and Final Skills Check

Show Work: Upload Handwritten work within 30 minutes of completing the Final Exam in MyLab

Summary

Due Date	Name (link)	Event type	Points
	Are You Ready to Learn Math?	Quiz	100
	Module 1 Class Meeting.	Assignment	100
	Module 1 Prerequisite Skills Practice	Assignment	100
	Module 1 Skills Practice 1	Assignment	100
	Module 2 Class Meeting.	Assignment	100
	Module 2 Optional Skills Practice	Assignment	10
	Module 2 Skills Practice 2	Assignment	100
	Module 3 Class Meeting.	Assignment	100
	Module 3 Skills Practice 3	Assignment	100
	Module 4 Class Meeting.	Assignment	0
	Module 4 Skills Practice 4	Assignment	100
	Module 5 Class Meeting.	Assignment	100
	Module 5 Midterm Skills Check	Assignment	100

Due Date	Name (link)	Event type	Points
	Module 5 Midterm Skills Check: Integrity Declaration	Quiz	1
	Module 5 Midterm Skills Review	Assignment	100
	Module 5 Skills Practice 5	Assignment	100
	Module 6 Class Meeting	Assignment	100
	Module 6 Skills Practice 6	Assignment	100
	Module 7 Class Meeting	Assignment	100
	Module 7 Optional Skills Practice	Assignment	8
	Module 7 Skills Practice 7	Assignment	100
	Module 8 Class Meeting	Assignment	100
	Module 8 Optional Skills Practice	Assignment	6
	Module 8 Skills Practice 8	Assignment	100
	Module 9 Class Meeting	Assignment	100
	Module 9 Final Skills Check	Assignment	100
	Module 9 Final Skills Review	Assignment	100

Due Date	Name (link)	Event type	Points
	Module 9 Skills Practice 9	Assignment	100
	Online Office	Discussion	0
	Student Lounge	Discussion	0
1/19	Module 1 Discussion: Introduction and Career Connections	Discussion	100
1/26	Module 2 Assignment: Show Work Practice Area (Optional)	Assignment	0
1/26	Module 2 Discussion: A Formula Investigation	Discussion	100
2/2	Module 3 Assignment: Show Work Practice Area (Optional)	Assignment	0
2/2	Module 3 Discussion: Interpreting Lines	Discussion	100
2/9	Module 4 Assignment: Show Work Practice Area (Optional)	Assignment	0
2/9	Module 4 Discussion: Profit and Loss Analysis in Business	Discussion	100
2/16	Module 5 Assignment: Show Work - Midterm Skills Check	Assignment	100
2/16	Module 5 Discussion: Midterm Skills Check Study Hall	Discussion	100
2/23	Module 6 Assignment: Midterm Reflection (PLG1)	Assignment	100
2/23	Module 6 Group Discussion: Factor Practice (GRS) (GRP)	Discussion	100

Due Date	Name (link)	Event type	Points
3/2	Module 7 Group Discussion: Early Thoughts on the Greatest Common Divisor (GRP)	Discussion	100
3/9	Module 8 Assignment: Turnitin (PLG1)	Assignment	0
3/9	Module 8 Discussion: Hidden Figures	Discussion	100
3/16	Module 9 Assignment: Final Reflection (PLG1)	Assignment	100
3/16	Module 9 Assignment: Show Work - Final Skills Check	Assignment	100
3/16	Module 9 Discussion: Final Skills Check Study Hall	Discussion	100
3/16	Module 9 Final Skills Check: Integrity Declaration	Quiz	1

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Last updated: 02/18/2022

By: Carol Hannah