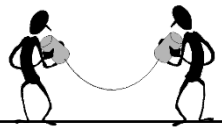
Welcome to MA 15300 College Algebra Online
Fall 2025 for 8 Weeks

Instructor: John LaMaster
Preferred Pronouns: He, him, his
Office: Kettler 264



How to Reach Me: E-mail: **lamaster@pfw.edu** ← **preferred**
Please use the following protocol when e-mailing me →
Google Voice: 260-267-0486
Office/voice mail: 260-481-5430
Math Dept: 260-481-6821
I normally respond within 24 hours (often sooner) except on holidays and weekends.

- To make sure your email reaches me, include in the subject line your full name and course. For example: **Peter Parker**, **MA 153 Online**
- University policy requires that you use your university e-mail address to email me to protect your privacy. Please do not use your private email address.
- Please keep the topic about the class.

Office Hours: MW 11:00-1:20 in KT 242 Face to Face or through Zoom. Also by appointment.

Prerequisites: MA 111 with B- or higher or placement by departmental exam. This course is primarily intended for students who have completed at least two years of high school algebra

Course Website: Go to **purdue.brightspace.com** to access our course. Click on **Purdue Fort Wayne**, enter your PFW username and password, and click **Log in**. The suggested browsers are Chrome and Firefox. Please watch the **course tour**. Explore and become familiar with the content and resources available in Brightspace.

Course Structure: Videos on Brightspace are best watched with pencil and paper in hand so you can work along with the class on the video. **Interactive Videos** are part of the course grade and require a response from you to proceed. Assignments, quizzes, and tests are completed using e-Homework (commercially called Möbius).

TIP: Keep a special section in your notes or a binder to collect any questions as you watch the videos and work on e-Homework.

You will also connect with other students in the class through our online asynchronous discussion forum.

Materials: In addition to notebook plus binder for organizing your notes, please see these three items.

1. **e-Homework**, commercially called Möbius, is required for all your graded homework, which has automatically been linked to your Brightspace course so you are already registered and can access Möbius from day one of the course. The cost of Möbius has been added to your tuition statement by the Follett's Bookstore. Möbius is also used in MA 15400 Trigonometry. Good news! The cost of Möbius ($27.50 per year) is a fraction of the price of what you would pay for My Math Lab ($80 per semester) and Möbius has more features to help you learn. Check your university email from Follett's for information.

IMPORTANT! Always enter Möbius through Brightspace! Otherwise the marriage between Möbius and Brightspace will separate and they will stop communicating with each other.

2. A **graphing calculator** is required for activities, assignments, quizzes and tests.
   The **TI-84 Plus** or **TI-84 CE Plus** are the *tools of choice*.
   Note: You can rent one at Walb Student Union 225 (260-481-6586).
   Click **HERE** for more information.

Since all quizzes and tests are online, these free alternatives are also possible: **Wabbit Emu** **Desmos** **Geogebra**

If you know of other free options, please share this info with me.

3. The **text** *Functions Modeling Change, 6th Edition* by Connally, et al. is **optional** but recommended. Some students have shared they did fine without a text and learned everything from doing eHW.

TIP: You can also use the 5th Edition or even the 3rd. We do **NOT** use WileyPLUS.
You might find it for cheap online at **Chegg**, **Amazon**, **eBay**, **betterworldbooks.com**, and from **Wiley**.

Recommended exercises out of the text will be given to deepen your understanding, but not required.

Objectives and Content: The purpose of this course is to prepare you for calculus. (If you do not intend to take calculus, a better course to take would be either MA 140 or STAT 125.They have higher success rates.) In this course, you will solve problems presented as real-world situations by creating and interpreting mathematical models which include linear, exponential, quadratic, power, polynomial and rational functions. Solutions to the problems are formulated, validated, and analyzed using mental, paper and pencil, algebraic, and technology-based techniques as appropriate. MA 15300 meets all **eight outcomes** (3.1 to 3.8) in *Area 3: Quantitative Reasoning* of the Indiana General Education Core. We will cover portions of Chapters 1-6 and Chapter 11 of the text. You can see the complete set of course goals listed on the ***General Course Information*** document and on the last page of this syllabus.

Grading:

Prerequisite Skills Quiz	25 pts.	(2.8%)
Participation: Community Building	10 pts.	(1%)
Participation: Interactive Videos	115 pts.	(13%)
e-HW Assignments	100 pts.	(11.1%)
Top 4 Quizzes @ 25 pts each	100 pts.	(11.1%)
Test 1	100 pts.	(11.1%)
Test 2	100 pts.	(11.1%)
Test 3	100 pts.	(11.1%)
Comprehensive Final Exam	250 pts.	(27.8%)
Total Points Possible	**900 pts.**	

Grading Scale:

90% -100%	(810 pts. or more)	A
80% - 89%	(720 to 809 pts.)	B
70% -79%	(630 to 719 pts.)	C
60% - 69%	(540 to 629 pts.)	D
<60%	(Below 540 pts.)	F

Prerequisite Skills Quiz: This quiz provides quick and early feedback to you on your proficiency with the skills needed for this course so you know if you have the skills needed, if you need to brush up, or if you need to take a refresher course. Study the eHW assignment *Math Background Needed for MA 15300* (and its worked out solutions). There are *eHW Flash Cards* to practice as well as free Khan Academy resources **HERE**.

Participation - Community Building: Post your self-introduction on Brightspace and submit the *Getting to Know You* survey, each worth 5 points. Some ways to earn +1 Rhino bonus toward your participation score: attach a photo to your self-introduction on Brightspace or post substantively to the **Piazza Discussion Board (**ask a question, answer another student's question, or positively contribute to the class community by sharing a tip.) You can also earn +1 Rhino bonus getting caught being awesome.

Participation – Interactive Videos: Interactive Videos (found in the Weekly modules in Brightspace) require you to enter a response for the video to proceed. These responses are graded, but you can redo them as many times as you want and you keep the highest score. The average is scaled to 115 points, thus an average of 100% is a score of 115 out of 115. If your average score is only 90%, your score would be 103.5 out of 115, and so on.

e-HW Assignments: Past students cite eHW as the key to their success You have unlimited attempts until the due date and the highest score is taken. The average score of all your best eHW scores (@ 20 pts each) is converted to a percentage and taken out of 100 points. Please read the section on eHW in the ***General Course Information*** for help with how to use *eHW*. You are encouraged to complete the assignment **multiple times** (even after you have earned a perfect score).
Research shows that students who do this retain the material better for the test.

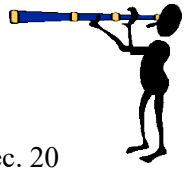
TIP: You have **unlimited attempts** until the due date and the highest score is taken.
The average score of all your best eHW scores is converted to a percentage and taken out of 100 points.

- **Late eHW** may be submitted for some partial credit, but certain conditions apply: for each perfect score you earn before the due date in the *Assignments (for a Grade)* area, you may redo one past due assignment at a 10% late penalty, i.e. for late eHW, a score of 20 would be entered in the Brightspace grade book as a score of 18. Go to the tab in Möbius called *Rhino Opportunity for Late Assignments* to access these after the due date.
- **eHW Guarantee:** The question bank is well scrubbed; however, if you do find that your answer is correct and the system tells you otherwise (due to mathematics, not text entry) and you are the first to report it to me, **lamaster@pfw.edu**, I will gratefully award you double points for that question.

Quizzes: To help make quizzes a learning experience, you can **drop all but the top four quizzes** (except the prerequisite quiz, which can not be dropped). All quizzes are online through Möbius. Quizzes serve as "dress rehearsals" for the tests, so high performing students find they are worth their best effort even after earning four high scores. Since I take only the sum of the top four quizzes, there are no make-up quizzes.

TIP: See also the *Rhino Quiz Awards* on the last page to earn bonus points.

Tests: All tests are online through Möbius. Keep track of these dates in your personal calendar:
Test 1 *(Tentatively Sections 1.1-1.5, 2.1, 2.2, 2.5):* Tues., Nov. 4 - Sun., Nov. 9
Test 2 *(Tentatively Sections 4.1-4.5, 5.1-5.3):* Tues., Nov. 18 - Sun., Nov. 23
Test 3 *(Tentatively Sections 2.4, 6.1-6.2, 3.1-3.2, 11.1-11.3):* Tues. Dec. 2 - Sun., Dec. 7
Comprehensive Final Exam *(Tentatively Section 11.4-11.5 and all prior content):* Mon., Dec. 15 - Sat., Dec. 20



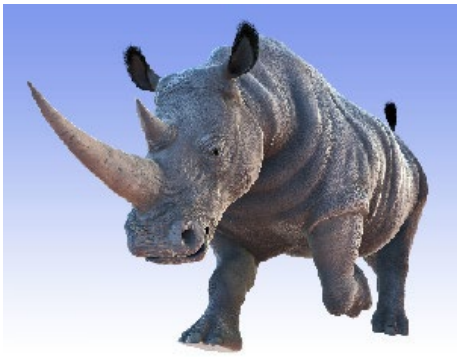
Student Support: I want you to be successful. Please reach out if you need help. Below is a directory of resources for specific issues. If technical difficulties affect your ability to complete assignments, please notify me as soon as possible.

For help with:	Contact:	Contact Information:
General Needs	See next column	See the Student Support Services **Website**
PFW account/password/ Brightspace Support	Information & Technology Services (ITS) Help Desk	Call: 260-481-6030 Email: **helpdesk@pfw.edu** See the **ITS Website**
Troubleshooting *eHW*	*eHW* Technical Support	Email: **ehwtechsupport@pfw.edu**
Graphing Calculator Rental	Student Government	Walb 225 or call: 260-481-6586 See the **Calculator Rental Website**
Using eHW (Möbius)	Check out the resource ***General Course Information*** in Brightspace first. Then see the **Möbius Support Website** for help.	
Tutoring	Online **HERE** and Face to Face tutoring in KT G19. See Brightspace under Student Support for hours	
Withdrawing from the class	Registrar	Directions are **here** and on the last page of this syllabus..
How to succeed in MA 15300	Students enrolled in a previous MA 15300 semester	See **the tips they wrote** specifically to you!
If you don't know where else to turn for resources, then contact …	… the CARE team	See their **Website** or call: 260-481-6601
Accommodations for students with disabilities (See below*)	Disability Access Center (DAC)	Walb 113, 260-481-6658, See their **Website**.

***For Students with Disabilities**
If you have a disability and need assistance, special arrangements can be made to accommodate most needs. Contact the Director of the Disability Access Center (Walb Union, Room 113, telephone number 260-481-6658) as soon as possible to work out the details. For more information, please visit the **Web site for Disability Access Center** (DAC).

Advice on Succeeding in MA 15300: Here is some timeless advice to take to heart so that you do not become overwhelmed: ***There's no substitute for daily preparation.*** In other words, work on this course every day, rather than saving it for the last minute before the deadline. Do not confuse the "due date" with the "do date". More tips are found **HERE**.

Rhino Success
I believe in your success and want to support you to meet your goals.
You can do it!
But it will require that you take charge of your learning, do the work required, and make the commitment to do what it takes to succeed.
If you want to succeed in life, be like the rhinoceros!
Wake up each morning and CHARGE straight ahead to accomplish your goals.
No obstacles get in the way of a 3 ton snorting rhinoceros charging at full speed!



Overall Course Schedule: The tentative course calendar on the next page provides more details about deadlines and may be helpful to see the big picture. The deadlines are also on the eHW (Möbius) Website and on the Brightspace Calendar and on this handy, clickable **Rhino Checklist**. If for any reason you are unable to complete a test during the specified dates for reasons beyond your control, please reach out to me for help.

Overall Course Schedule

Schedule and assignments subject to change. Any changes will be posted in Brightspace

Topic	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Sat
Week 1 (Oct. 22-25): Sections 1.1-1.5 Linear Functions and the Average Rate of Change	Oct 19	Oct 20 Fall Break	Oct 21 Fall Break	Oct 22	Oct 23	Oct 24 Self-Introduction on Brightspace due Getting to Know You Survey due eHW Syllabus Scavenger Hunt & Course Tour eHW on Math Background due Prerequisite Skills Quiz closes	Oct 25
Week 2 (Oct. 26-Nov. 21): Sections 2.1-2.6 Function Properties	Oct 26	Oct 27 eHW0: General Course Info due eHW01: Chapter 1 due Quiz 1 closes	Oct 28	Oct 29	Oct 30	Oct 31	Nov 1
Week 3 (Nov. 2-98): Sections 4.1-4.5 Exponential Functions	Nov 2	Nov 3 eHW02: 2.1-2.2 due eHW03: 2.5-2.6 due Quiz 2 closes	Nov 4 T1 opens	Nov 5	Nov 6	Nov 7	Nov 8
Week 4 (Nov. 9-15): Sections 5.1-5.3 Logarithmic Functions	Nov 9 T1 closes	Nov 10 eHW04: 4.1-4.2 due eHW05: 4.3-4.5 due Quiz 3 closes	Nov 11	Nov 12	Nov 13	Nov 14	Nov 15
Week 5 (Nov. 16-22): 2.4,6.1-6.2, 3.1-3.2 Transformations of Functions (Reflections, Vertical Stretches, and Vertical Compressions) and Quadratic Functions	Nov 16	Nov 17 eHW06: 5.1 due eHW07: 5.2-5.3 due Quiz 4 closes	Nov 18 T2 opens	Nov 19	Nov 20	Nov 21	Nov 22
Week 6 (Nov. 23-29): Section 11.1-11.3 Power Functions and Polynomial Functions	Nov 23 T2 closes	Nov 24 eHW08: 2.4, 6.1, 6.2 due eHW09: 3.1-3.2 due Quiz 5 closes	Nov 25	Nov 26	Nov 27 Thanksgiving Break	Nov 28 Thanksgiving Break	Nov 29
Week 7 (Nov. 30-6): Section 11.4-11.5 Rational Functions	Nov. 30	Dec 1 eHW10: 11.1 due eHW11: 11.2-11.3 due Quiz 6 closes	Dec 2 T3 opens	Dec 3	Dec 4	Dec 5	Dec 6
Week 8 (Dec. 6-13): Section 11.5 Formulas of Rational Functions	Dec 7 T3 closes	Dec 8 eHW12: 11.4 due Quiz 7 closes	Dec 9	Dec 10	Dec 11	Dec 12 eHW13: 11.5 due Quiz 8 closes	Dec 13
Final Exam Week (Dec. 14-20)	Dec 14 All late eHW closes	Dec 15 Final Exam opens	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20 Final Exam closes

All eHW, quizzes, tests, and the final exam are completed through Möbius. **They close at 11:59 PM on the day indicated.**

- You have unlimited attempts to complete your eHW Assignments until the deadline.
- **To help accommodate any possible Internet outages, you will have 3 attempts for each quiz and each test.**

You have 90 minutes to complete each quiz, taking the highest score. You have 180 minutes to complete each test, taking the highest score. The longer time limit is so you can take it unrushed. Please contact me as soon as possible if you have any issues that prevent you from completing your work. I encourage you to reach out to me.

Rhino Awards and Badges:

- **Rhino Hot Quiz Award:**
  Earn a +2 Rhino Bonus on a test if you earn 90% or above (≥ 22.5) on each quiz over that test material, i.e.,
  - Earn 90% or higher on Quiz 1, 2, & 3 for +2 Bonus on Test 1
  - Earn 90% or higher on Quiz 4, 5, & 6 for +2 Bonus on Test 2
  - Earn 90% or higher on Quiz 7, 8, & 9 for +2 Bonus on Test 3
  - Earn 90% or higher on Quiz 10 & 11 for +2 Bonus on the Final Exam

- **Rhino Syllabus Award:**
  Earn a +1 Rhino Bonus on the *Syllabus Scavenger Hunt* if it is a score of 100%.

- **Rhino Key Contributor Award:**
  Earn a +1 Rhino Bonus to *Participation: Community Building* if you post at least once to the Piazza Discussion Board in a way that supports others' learning.

What is the best way to use Artificial Intelligence (AI) and eHW (Möbius) as a student in this class?
Use AI and eHW for systematic, regular practice with a targeted focus, the **way professionals develop mastery** in order to help you learn the content as opposed to just getting an answer to earn points.
The use of AI is recommended to:

- help you learn a difficult concept.
- tell you how a concept might be important for your career path.
- create example quiz questions. "In terms of difficulty, on a scale of mild, medium, or spicy, make it <*choose a level*>."
- tell you the best ways to study for an exam.
- help you in **these ways suggested by ChatGPT**

Use caution. Large Language Models (LLM) can hallucinate as in these examples. A healthy distrust is appropriate.
LLM's may apply procedures you have not yet learned, omit steps altogether, or provide incorrect answers.
To coach AI, use these prompts to lower the chance you will get rubbish:

- Ask "Don't give me solutions but just give me help along the way". Utilize ChatGPT *Study Mode*.
- Say "Hey, slow down, check your results by using Python, and solve the problem step by step."
- Whenever AI skips a step, it is more likely at that point that is hallucinating. Ask AI to tell you to fill in the missing steps. Tell them your grade level. "Drop down a notch, Einstein. Teach a first-year college student how to solve the problem step by step." or "I haven't learned that method yet. Tell me another way to solve it."
- AI perceives emotion. It performs better if you say "It's vital to me you get it correct and that it makes sense to me."


TIP: In this course you will see how to do this.

At present, LLM's might **not** do very well with:

- validating if your answer is correct or sharing how you can use other strategies to know if your answer is correct.
- critiquing if your solution is the best one possible or sharing if there is a more efficient or better approach.

Catalog Description of the Course: Review of algebraic operations, factoring, exponents, radicals and rational exponents, and fractional expressions. Linear and quadratic equations and modeling, problem solving, and inequalities. Graphs of functions and transformations, including polynomial, rational, exponential, and logarithmic functions with applications.

Catalog Description of Student Learning Objectives:

1. To correctly perform algebraic operations, to solve algebraic equations of degree two, to perform operations with exponents and radicals.
2. To sketch graphs of certain polynomial, exponential and logarithmic functions.
3. To solve systems of equations and inequalities.

In addition to the above, see also the objectives listed here.

General Education Course Learning Outcomes

Indiana College Core Area 3 Quantitative Reasoning Competencies

Interpretation and Representation
3.1. Interpret information that has been presented in *mathematical form**.
3.2. Represent information/data in *mathematical form** as appropriate
**mathematical form* = functions, equations, graphs, diagrams, tables, words, and geometric figures.
Mathematical Procedures
3.3. Demonstrate skill in carrying out mathematical (e.g. algebraic, geometric, logical, statistical) procedures flexibly, accurately, and efficiently to solve problems.
Critical Thinking
3.4. Analyze mathematical arguments, determining whether stated conclusions can be inferred.
Application / Analysis
3.5. Communicate which assumptions have been made in the solution process.
3.6. Analyze mathematical results in order to determine the reasonableness of the solution.
3.7. Cite the limitations of the process where applicable.
Communication
3.8. Clearly explain the representation, solution, and interpretation of the math problem.

Click **HERE** for more information about the Indiana College Core.

If you find yourself overwhelmed or in the wrong class, please make sure you officially process your withdrawal rather than simply stop attending.
See the withdrawal deadline at the top of this page.

To officially process a withdrawal, log in to **go.pfw.edu** and, on the Home Page on the first card titled **Student To-do List**, select **Student Common Dashboard** (the fourth item in the list). Then click on **Withdraw Form (after add/drop, until deadline**) and submit the form. This would only put a grade of W on your record instead of a grade of F. A grade of W does not affect your GPA. Future employers will not view a grade of W as a *mar* on your record, but, instead, as a *strategic recalibration*.

You have reached (except for this one more item for those who choose) the end of this syllabus,
and I am grateful that you took the time to read it. Thank you!
I am looking forward to having an awesome semester together.