

MA 15400-02 Fall 2020

M or W 10:00 AM - 10:50 AM Kettler 123

Instructor: John LaMaster

Course Website: purdue.brightspace.com (Click on Purdue Fort Wayne, enter your PFW username and password, click Login)

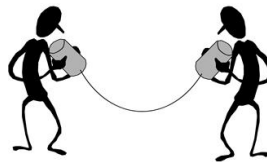
How to Reach Me: E-mail: lamaster@pfw.edu ← preferred

Google Voice: 260-267-0416

Office/voice mail: 260-481-5430

Math Dept: 260-481-6821

I normally respond within 24 hours (often sooner) except on holidays and weekends.



Office Hours: In addition to the virtual hours posted online, I am happy to arrange a virtual meeting with you in my Zoom Room (found [HERE](#)) or on the phone. Please reach out to me and we will find a time to connect.

Course Structure: I have designed the course with your utmost safety in mind. To lower the spread of the virus and to accommodate anyone who must isolate who has tested positive or came in contact with someone who has tested positive, you will access video lecture content on Brightspace. These videos are best watched with pencil and paper in hand so you can work along with the class on the video. **TIP:** Keep a special section in your notes or a binder to collect any questions as you watch the videos and work eHW. You will be expected to attend **one class meeting per week during our normal class meeting time** which will be best used to answer the questions on your list, work through problems together, and build on the concepts in the videos. If you have a laptop, please bring it to class. If you have any of [these symptoms of the coronavirus](#), you may have been exposed and we do not want you to come to class. You can still participate in our class meeting virtually and will not be penalized. If you are sick and unable to participate, please let me know.

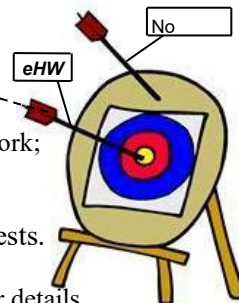
Materials: In addition to access to a device that is able to play audio and video using a good Internet connection (a computer or laptop is recommended), as well as a notebook plus binder for organizing your notes, please see these three items below.

1. Access to *eHW* (commercially called Möbius) will be **required** for all your graded homework, quizzes, and tests. Follow the steps on the [eHW Web Site](#) to pay (\$15) and to access it. You will need our course code which is ZNFMZ.



Despite the extra fee for *eHW*, past students have shared that it was worth every penny. It gives you the essential practice you need to succeed.

Note: If you have purchased an *eHW* access code from last semester it should still work; you will just need to register for my section using the above course code.



2. A **graphing calculator** will be used for activities, assignments, quizzes and tests.

The **TI-84Plus** or **TI-84 CE Plus** the *tools of choice*.

Note: You can rent one at Walb Student Union 225 (260-481-6586). Click [HERE](#) for details.

Since all quizzes and exams are online this semester, these free alternatives are also possible: [Wabbit Emu](#)
[Desmos](#)
[Geogebra](#)

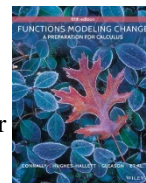
If you know of other free options, please share this info with me.

I will use the TI-84 Plus CE since it will be more likely you would be allowed to use that in future course work.

3. The **text** *Functions Modeling Change, 5th Edition* by Connally, et al. is **optional** but recommended. Some of my stronger students have shared they did fine without a text and learned everything from doing eHW.

If you do buy a text online, please be careful. Make sure it has the cover shown →
We do **NOT** use WileyPLUS.

You might find it for cheap online at [Chegg](#), [Amazon](#), [eBay](#), [betterworldbooks.com](#), and from [Wiley](#). It is also in brick and mortar stores in town ([Follett's](#)) but usually it is much higher than anywhere else. Recommended exercises out of the text will be given to deepen your understanding, but not required.



Yo! Optional!



Objectives and Content: The purpose of this course is to prepare you for calculus which requires trigonometry, i.e. MA 16500 or MA 22700. If you do not intend to take either of these courses, there is no reason to take this class. An exception is CHM 11500. If that is the only reason you need it, please let me know. This course is not needed for calculus MA 22900.

MA 15400 emphasizes mathematical modeling of real-world problems using linear, exponential, and trigonometric functions. Topics also include vectors, parametric equations, conic sections, and complex numbers. Solutions to the problems are formulated, validated, and analyzed using mental, paper and pencil, algebraic, and technology-based techniques as appropriate. We will cover portions of Chapters 7, 8, 9, 10, 12, 13, and 14 of the text.

Grading:

Participation.....	25 pts.	(3.125%)
Prerequisite Skills Quiz.....	25 pts.	(3.125%)
e-HW Assignments.....	100 pts.	(12.5%)
6 Quizzes @ 25 pts each	150 pts.	(18.75%)
Test 1	100 pts.	(12.5%)
Test 2	100 pts.	(12.5%)
Test 3	100 pts.	(12.5%)
Comprehensive Final Exam	200 pts.	(25%)
Total Points Possible	800 pts.	

90% -100% (720 pts. or more)	A
80% - 89% (640 to 719 pts.)	B
70% -79% (560 to 639 pts.)	C
60% - 69% (480 to 559 pts.)	D
<60% (Below 479 pts.)	F

Participation: You will earn participation points by completing the *Getting to Know You* survey, by posting your self-introduction on Brightspace, and your participation in synchronous (“live” or literally “same time”) class meetings as described above in the **Course Structure** above. Absences due to illness or isolation are excused.

Prerequisite Skills Quiz: This quiz provides quick and early feedback to you on your proficiency with the skills needed for this course. Study the eHW assignment *Math Background Needed for MA 15400* (and its worked out solutions). There are eHW Flash Cards to practice this content on the [eHW Web Site](#) and free Khan Academy resources [HERE](#).

e-HW Assignments: If you ask any high performing MA 15400 student from a previous semester what was the key to their success in the course, they will uniformly cite eHW, which is described in the document [General Course Information](#). See also the [eHW Web Site](#) for help with how to obtain access and use eHW (commercially called Möbius). You are encouraged to work ahead on an assignment, even before the material is covered, and do 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 exam. 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. For example, a student with perfect scores on every eHW assignment earns 100 points; one who scores an average of 80% earns 80 points, etc.



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 my grade book as a score of 18. Go to a separate area once you login to eHW (called *Rhino Opportunity for Late Assignments*) to access these after the due date. Once you've earned a higher score, please notify me.

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, 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 six quizzes** (except the prerequisite quiz, which can not be dropped). All quizzes are online through Möbius. Quizzes serve as “dress rehearsals” for the big performance (the Chapter Exam), so high performing students find they are worth their best effort even after earning six high scores. Since I take only the top six quizzes, if you miss one there are no make-ups.

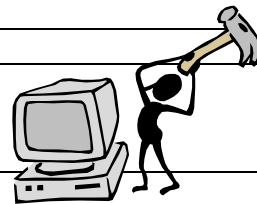
Exams: All exams are online through Möbius. Keep track of these dates in your personal calendar:

- Exam 1 (*Tentatively Sections 7.1-7.5*): Friday, Sept. 18 – Wednesday, Sept. 23
- Exam 2 (*Tentatively Sections 7.6-7.8, 8.1-8.3, 9.1-9.3, 10.1-10.2*): Friday, Oct. 23 – Wednesday, Oct. 28
- Exam 3 (*Tentatively Sections 12.1-12.3, 13.1-13.4, 14.1-14.4*): Sunday, Nov. 29 – Sunday, Dec. 6
- Comprehensive Final Exam (*Tentatively Section 9.6 and Comprehensive*): Monday, Dec. 14 – Sunday, Dec. 20



Student Support: I want you to be successful. Please reach out to me 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:	See:	Contact Info:
PFW account/password/ Brightspace Support	Information & Technology Services (ITS) Help Desk	Call: 260-481-6030 Email: helpdesk@pfw.edu See the ITS Website
<i>eHW</i> (Möbius) Purchasing an <i>eHW</i> access code	Digital Ed Customer Support	1-833-450-2211 Email: support@digialed.com
Troubleshooting <i>eHW</i>	<i>eHW</i> 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	Check out the resource General Course Information first. Then see the Möbius Support Website for help.	
Tutoring (Face to Face & Online)	Online HERE and limited Face to Face tutoring in KT G19	
Attending PFW in a Pandemic	PFW Prepared	PFW Prepared Website See Information & Support for Current Students See Campus Resources See Wellness and Prevention
Short-term Counseling (Free)	Campus Health Clinic	Call the 24 hour Hotline: 800-342-5653 See their Website Or call: 800-342-5653
If you don't know where else to turn for resources, then contact...	... the CARE team	See their Website or call: 260-481-6601
Withdrawing from the class	Student Success & Transitions	Call: 260-481-0404, E-mail: withdraw@pfw.edu See the Student Success & Transitions Website
Accommodations for students with disabilities*	Services for Students with Disabilities (SSD)	Walb 113, 260-481-6658, See their Website



***For Students with Disabilities**

Please contact me as well as SSD in advance of an exam if testing accommodations are needed due to a disability. If you have a disability and need assistance, special arrangements can be made to accommodate most needs. Contact the Director of Services for Students with Disabilities (SSD) as soon as possible to work out the details. Students requiring test accommodations based on disability should contact the SSD Director of Testing Services at least seven (7) business days before the scheduled test date. Disability documentation may be required.

Rhino Success

I believe in your success and want to support you to meet your goals.

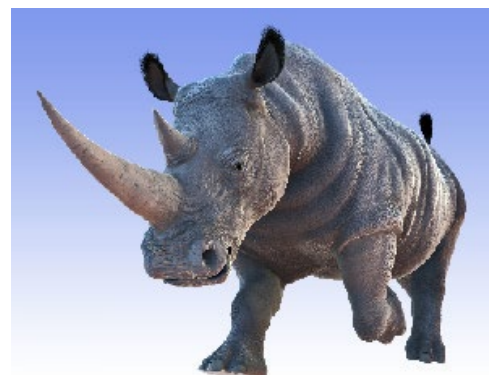
You can do it!

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 Calendar: The tentative course calendar on the next page provides more details about deadlines and may be helpful to see the big picture. Sorry for the small print. The deadlines are also on the eHW Website. If for any reason you are unable to complete an exam during the specified dates for reasons beyond your control, please reach out to me for help. The following page also describes some **RHINO incentives** you can earn. Polish that rhino horn and charge!

MA 15400 Fall 2020 Tentative Schedule

Topic	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Sat
Week 1 (Aug 24-28): Sections 7.1-7.2 Periodic Functions, and the Sine Function (with its sidekick, Cosine)	Aug 23	Aug 24	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29
Week 2 (Aug 31- Sept. 4): Section 7.3, Ch 7 Skills Refresher, 7.4 Radians, Special Angles and the Graph of Sine and Cosine	Aug 30	Aug 31	Sept 1 eHW Math Background due eHW0: General Course Info due	Sept 2 Prereq Quiz closes	Sept 3	Sept 4	Sept 5
Week 3 (Sept. 8-11): Section 7.5 Transformations of the Graph of Sine and Cosine	Sept 6	Sept 7 Labor Day	Sept 8	Sept 9	Sept 10 eHW1: 7.1-7.2 due eHW2: 7.3 due	Sept 11 Q1 7.1-7.2 closes	Sept 12
Week 4 (Sept.14-18): Sections 7.6-7.8 The Tangent Function, Reciprocal Functions and Inverse Functions	Sept 13	Sept 14	Sept 15	Sept 16	Sept 17 eHW3: Special Angles due eHW4: 7.4-7.5 due	Sept 18 Q2: 7.3 & Special Angles closes Q3: 7.4-7.5 closes Test 1 opens	Sept 19
Week 5 (Sept. 21-25): Sections 8.1-8.2 Right Triangle Trigonometry, "NonRight" Triangle Trigonometry	Sept 20	Sept 21	Sept 22	Sept 23 Test 1 closes	Sept 24	Sept 25	Sept 26
Week 6 (Sept. 28-Oct 2): Sections 8.2-8.3 Solving Triangles and Polar Coordinates	Sept 27	Sept 28	Sept 29	Sept 30	Oct 1 eHW5: 7.6-7.8 due eHW6: 8.1 due	Oct 2 Q4 7.6-7.8 closes Q5 8.1 closes	Oct 3
Week 7 (Oct 5-9): Section 9.1-9.3 Trig Identities and Equations	Oct 4	Oct 5	Oct 6	Oct 7	Oct 8 eHW7: 8.2 due	Oct 9 Q6 8.2 closes	Oct 10
Week 8 (Oct 12-16): Sections 10.1-10.2, 12.1 Function Composition, Inverse Functions and Vectors	Oct 11	Oct 12	Oct 13	Oct 14	Oct 15 eHW8: 8.3 9.1 due eHW9: 9.2 due eHW10 9.2, 9.3 due	Oct 16 Q7 8.3 9.1 closes Q8 9.2-9.3 closes	Oct 17
Week 9 (Oct 19-23): Sections 12.2-12.3 Applications of Vectors	Oct 18	Oct 19 Fall	Oct 20 Break	Oct 21	Oct 22 eHW11: 10.1-10.2 due	Oct 23 Q9 10.1-10.2 closes Test 2 opens	Oct 24
Week 10 (Oct 26-30): Sections 13.1-13.2 Sequences	Oct 25 IUFW Last day to drop	Oct 26	Oct 27	Oct 28 Test 2 closes	Oct 29	Oct 30 PFW Last day to drop	Oct 31
Week 11 (Nov 2-6): Sections 13.2-13.4 Series	Nov 1	Nov 2	Nov 3	Nov 4	Nov 5 eHW12: 12.1-12.2 due eHW13: 12.3 due eHW14: 13.1 due	Nov 6 Q10 12.1-12.2 closes Q11 12.3 closes	Nov 7
Week 12 (Nov 9-13): Sections 14.1-14.2 Parametric Equations and Circles	Nov 8	Nov 9	Nov 10	Nov 11	Nov 12 eHW15: 13.2 due eHW16: 13.3 13.4 due	Nov 13 Q12 13.1-13.4 closes	Nov 14
Week 13 (Nov 16-20): Sections 14.3-14.4 Ellipses and Hyperbolas	Nov 15	Nov 16	Nov 17	Nov 18	Nov 19 eHW17: 14.1 due	Nov 20 Q13 14.1 closes	Nov 21
Week 14 (Nov 23-24): Section 9.6 Complex Numbers	Nov 22	Nov 23 eHW18: 14.2-14.3 due eHW19: 14.4 due	Nov 24 Q14 14.2-14.3 closes Q15 14.4 closes	Nov 25 - Nov 27 Thanksgiving Break			Nov 28
Week 15 (Nov 30-Dec. 4): Sections 9.6 Complex Numbers Cont'd	Nov 29 Test 3 opens	Nov 30	Dec 1	Dec 2	Dec 3	Dec 4	Dec 5
Week 16 (Dec. 7-11): Review for the Final Exam	Dec 6 Test 3 closes	Dec 7	Dec 8	Dec 9	Dec 10 eHW20: 9.6 due	Dec 11 Q16 9.6 closes	Dec 12
Final Exam Week	Dec 13 All late eHW closes	Dec 14 Final Exam opens	Dec 15	Dec 16	Dec 17	Dec 18	Dec 19
	Dec 20 Final Exam closes						

All eHW, quizzes, and tests are completed online [HERE](#). They will 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 exam.**
You have 90 minutes to complete each quiz. Similar to the eHW Assignments, these are short. The longer time limit is so you can take it unrushed. I will drop all but the top six (6) quizzes, so no late quizzes are allowed. You have 120 minutes to complete each test.
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 e-Homework Assignment Incentive:** For each eHW Assignment earned at 90% or above, you can redo one eHW at 10% late penalty.
- Rhino Quiz Incentive:** Earn a +2 Rhino Bonus on the chapter test if you earn 90% or above on each of the quizzes that are over that test material
- Final Exam Rhino Award** – can keep your grade earned and be exempt from the final* if you do the following:
 - Earn 100% of the Participation points (illnesses/isolation are excused).
 - Contribute to the [Piazza Discussion Board](#) at least once.
 - Earn 90% or higher on each eHW assignment
 - Have a quiz average of 90% or higher on top 6 quizzes
 - Earn 80% or higher on each chapter test.

*Or you can take the final without any risk of it hurting your grade. If it bumps you up, you get the higher grade.

