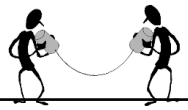
MA 16600-02 Analytical Geometry and Calculus II

PURDUE UNIVERSITY FORT WAYNE

Class Meeting Time: MW 10:00 AM – 10:50 AM Kettler 218
TR 10:30 AM – 11:45 AM Kettler 218



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 Phone/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 16600-02**
- 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.
- For questions about assignment due dates check out Brightspace or My Math Lab first.
- I prefer to be addressed as *John*.

Office Hours: My office hours are posted in Brightspace. I hold these office hours on Zoom at this link.
I am more than happy to set up a one-on-one appointment with you any time, either Zoom or face-to-face.

Prerequisites: MA 16500 with C- or higher.

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 explore and become familiar with the content and resources available in Brightspace.

What You Need: To be successful, make sure you have the following!

1. Access to **My Math Lab** (MML). Follow the steps on Brightspace to purchase an access code if you do not have one. To register for the course you will need my course ID: lamaster13712.

TIP: If you have previously purchased 24 month access last semester, when you enter the MML portal you should immediately be taken to the course. If not, contact me and I can help. For those who must take MA 26100 next semester and must purchase MML this semester, you get a price break if you choose the 24 month access. You can get free temporary access 14 days after you register.

   The **text** *Briggs, Cochran, Gillet, and Schulz: Calculus: Early Transcendentals, 3e, Pearson.* is included digitally with your purchase of My MyLab. All graded homework will be from MML.
2. A **graphing calculator**. 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 info.
3. A **notebook plus binder** for organizing papers and notes.
4. **Internet access:** high speed recommended. Free access is on the campus Wi-fi or, off-campus, **here**.
5. **Study Buddies**
   - Participate in the Piazza Discussion Forum at **piazza.com/pfw/fall2024/ma16600**, where you can ask a question (even anonymous to the class), answer a question, or share a tip.
   - Most students have an easier time with the course when they have a group of people with whom they can work on homework, activities, and study for exams. In addition to Piazza, you may find it helpful to study in the **Math MALL** (Math Assistance Learning Center) in KT G38. Hours will be posted in Brightspace.
6. **The attitude of a Rhino**
   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!

Content and Learning Outcomes: This course is a continuation of MA 16500, covering topics in Chapters 6, 8, 10-12, Sections 5.5, 7.2, 9.1-9.3, and Appendix C (Complex Numbers) of the text *Briggs, Cochran, Gillet, and Schulz: Calculus: Early Transcendentals, 3e.* Learning outcomes and more can be found in Brightspace in the Content folder.

Grading:

Participation	25 pts.	(4%)
MML Assignments	100 pts.	(14%)
Top 4 Quizzes @ 25 pts each	100 pts.	(14%)
Test 1	100 pts.	(14%)
Test 2	100 pts.	(14%)
Test 3	100 pts.	(14%)
Comprehensive Final Exam	175 pts.	(25%)
Total Points Possible	**700 pts.**	

Grading Scale:

89.5% -100% (627 pts. or more)	A
79.5% - 89.4% (557 to 626 pts.)	B
69.5% -79.4% (487 to 556 pts.)	C
59.5% - 69.4% (416 to 486 pts.)	D
<59.5% (Below 416 pts.)	F

Participation: Since much of the learning in this course occurs interactively during class time, to earn your participation credit in class meetings I expect you to stay until class ends as well as contribute to the learning environment of the class If you are blatantly not participating in class - such as on your phone for matters other than MA 16600 without advance permission, doing homework for other classes, being disruptive, contributing to a choral "premature departure book bag zip", refusing to give an activity a college try, or anything to lower the class morale, you will not earn your participation points for that day. In addition to your active participation in class meetings (15 pts), you can earn participation points by posting your **Self-introduction on Brightspace** (5 pts) and completing the ***Getting to Know You* survey** (5 pts).

If you receive credit for each class meeting, you would have 100% participation and thus a score of 15 out of 15. If you were only 90% participating, your score would be 13.5 out of 15, and so on. If you miss a class, use Brightspace to watch the class recording posted on under **Content > Class Recordings** so you come prepared the next period. Earn back one missed day of class by attending five one hour tutoring visits to **Math MALL** (Math Assistance Learning Center) in KT G38. You can also join other student rhinoceri on Monday and Wednesday from **11:00 AM to Noon** in our classroom, KT 218, or join by Zoom for Rhin*OFF*-erous *HOURS*. Ways to earn +1 Rhino bonus toward your participation score: attach a photo to your **Self-introduction on Brightspace**, earn a perfect score on your MML *Syllabus Scavenger Hunt*, post substantively to the ***Piazza Discussion Board***, or more.

Absences due to illness or isolation or quarantine are excused. No doctor's note is required, but please email me to let me know. If you have any of **these symptoms** of the coronavirus, you may have been exposed. If so, please do not attend class. To accommodate anyone who must isolate (if you've tested positive for COVID-19) or quarantine (if you've come in contact with someone who has tested positive), You can also participate live in class through **Zoom**. **TIP**: On Brightspace, you can quickly find it on the **Course Home Page** under John's photo. Please reach out to me for help if your life is disrupted for any reason. I am here to help.

MML Assignments: Online homework will be assigned using **My Math Lab (MML)**. Always enter MML through our D2L Brightspace course or the MML and D2L marriage will separate and they will stop communicating with each other. Once the due date is passed, you may continue to work on the assignment, but a 10% penalty will be applied on the problems you missed, giving you unlimited attempts. However, all MML assignments will close at **11:59 PM, Sunday, December 15**. In addition to being better prepared for the in-class quizzes, there is a special incentive for earning 90% or higher on My Math Lab homework. See the section on **Chapter Tests** for more info.

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

MML 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 John you will be awarded double points for that question.

Quizzes: To help make quizzes a learning experience, you can **drop all but the top four quizzes**. All quizzes are taken in class with paper and pencil. Quizzes serve as "dress rehearsals" for the tests, so high performing students find that even after earning four perfect scores, it is most beneficial to dedicate their best effort on quizzes to prepare for exams. Since I take only the sum of the top four quizzes, there are no make-up quizzes. Research shows that students who do this retain the material better for quizzes and tests.

Chapter Exams: There will be three tests (all paper), worth 100 points each. **Perk:** Earn a 90% or higher on the MML Homework Assignments associated with the test before the date the test is given, to receive a test ticket to retake another version of this exam, keeping the higher score.

Final Exam: You sit for the comprehensive paper and pencil final on **Tues., Dec. 17, 10:30 am - 12:30 pm** in our classroom.

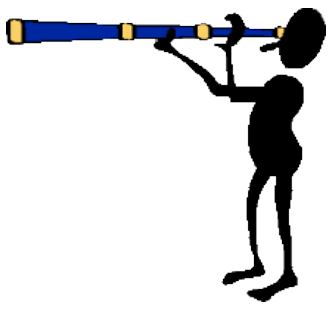
Student Support: I want you to be successful. Please reach out if you need help. Below is a directory of resources for specific issues. If technical difficulties affect your ability to complete assignments, please notify me as soon as possible.

For help with:	Contact:	Contact Information:
General Needs	Academic Services, Technology Services, Health and Wellness, and Support from Administrative Offices	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**
Purchasing Pearson MML	Pearson Customer Support	See their **Website**.
Tutoring	Online **HERE** and Face to Face tutoring in KT G38. I will put a schedule in Brightspace once it is available.	
Graphing Calculator Rental	Student Government	Walb 225 or call: 260-481-6586 See the **Calculator Rental Website**
Short-term Counseling (Free)	Campus Health Clinic	Call the 24 hour Hotline: 800-342-5653 See their **Website**.
Withdrawing from the class	Registrar	Directions are here.
How to succeed in MA 16600	Students enrolled in previous math classes with me	See **the tips they wrote** to students like 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**

I am committed to creating a course that is inclusive in its design. If you encounter barriers, please let me know immediately so that we can determine if there is a design adjustment that can be made or if an accommodation might be needed to overcome the limitations of the design. I am always happy to consider creative solutions as long as they do not compromise the intent of the assessment or learning activity. You are also welcome to contact the Disability Access Center at **dac@pfw.edu** or 260-481-6657 or visit them at Walb Union, Room 113, or **pfw.edu/dac** to begin this conversation or to establish accommodations for this or other courses. I welcome feedback that will assist me in improving the usability and experience for all students at Purdue Fort Wayne.

Mark Your Calendar with these Important Dates!

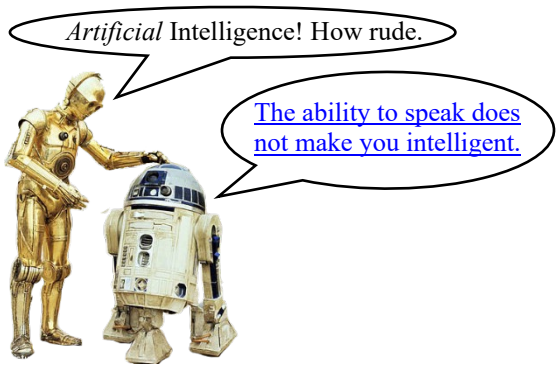


No Class Meeting Labor Day: **Monday, September 2**
Fall Break: **Monday, October 21 - Tuesday, October 22**
Last Day to Withdraw for PFW Students with a Grade of W: **Friday, October 25**
No Class Meeting Thanksgiving Break: **Wednesday, November 22 - Friday, November 24**
All past-due MML Assignments close: **11:59 PM, Sunday, December 15**
Comprehensive Final Exam: **Tuesday, December 17, 10:30 a.m. - 12:30 p.m.**

There are several ways you can keep track of deadlines in this course.

- Use the calendar on Brightspace.
- Use the Brightspace **Pulse App** to receive notifications on your phone. (Directions on acquiring this are **here**, and in the checklist in the **Start Here** module in our Brightspace course.)
- View the due dates on the Brightspace Assignment page.
- View the due dates on the My Math Lab Assignment page.

What is the best way to use Artificial Intelligence (AI) and My Math Lab (MML) as a student in this class?



Use AI and MML to develop the following skills useful in life:

1. Deliberate Practice
   a. Use AI and MML for systematic, regular practice with a targeted focus, the way professionals develop mastery.

   b. Click on ***Content*** > ***My Math Lab*** > ***How to Use My Math Lab and Other Learning Aids to be Successful*** for tips specific to our class. Watch the 64 second (silent) video ***Doing MML for earning instead of for learning*** for the rationale on using MML and AI to have the best outcome.

2. Bulls*it Detection
   Generative AI is trained to deliver a response with the shortest wait time possible. This may cause it to apply procedures you have not yet learned, omit steps altogether, or provide incorrect answers. A healthy distrust is appropriate. To coach AI, use these prompts:
   - "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 delivering rubbish. 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."

   Generative AI might be used effectively to:
   - help you learn a difficult concept. "Don't give me solutions, but just give me help along the way", i.e., like **here** (with Khan Academy) and **here** (with ChatGPT-4o developers). This will lower the chance you will get rubbish. Fun Fact: Machine learning uses a **gradient descent algorithm** (similar to Newton's method from Calculus 1 in multiple dimensions using linear algebra with discrete data) which produces best results if you ask it to show steps.
   - 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**.

   TIP: In class I will show you this.

   At present, generative AI 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.

No need to pay additional $: There is often a paywall for *Wolfram Alpha*, *Mathway*, or other computer algebra systems to explain the steps to the solution process. Do not pay. Included in your e-text is Pearson's AI-powered study tool. While not flawless, this interactive AI Tutor will draw from our textbook's solution manual to more accurately guide you. In addition, Microsoft Copilot with Data Protection, available at **copilot.microsoft.com/** is also free to students. Sign in with your PFW account credentials.

Advice So You Are Not Overwhelmed

Take this advice to heart that was given to me by my Calculus II professor when I took the course more than 40 years ago:

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**.

If you find yourself overwhelmed or in the wrong class, there is no loss of fee if you drop this class and then add another math course to your schedule such as MA 16500 or MA 15400 *within the first four weeks.* If you do wish to drop the class, please make sure you officially process your withdrawal rather than simply stop attending. The deadlines, refund schedule, and guidance is **HERE**. Future employers will not view a grade of W as a *mar* on your record, but, instead, as a *strategic recalibration*.