Math 126 End of Week 3 Newsletter

UPCOMING SCHEDULE:
Friday: Section 13.2 and 13.3 (measurements on 3D curves: tangent vectors, arc length, curvature, TNB-Frame)
Monday: Section 13.4 (Velocity and Acceleration)
Tuesday: Homework Q & A and review
Wednesday: Review
Thursday: Exam 1
Next Friday: Section 14.1 (Intro to Surfaces)
Exam 1 is Thursday: It includes 12.1-12.6, 13.1-13.4
There will be four pages of questions. You will have **50 minutes**. Time will be a factor, so make sure you time yourself as you are practicing old exams. Many students have trouble adjusting to the shorter time on the first exam (so consider yourself warned).

WS 3 sol'ns: https://sites.math.washington.edu/~aloveles/Math126Spring2019/ws3Solns.pdf
Hopefully that introduced you to a few 3D curve facts. We will talk about this more on Friday.

HOMEWORK: Closing Tuesday: 13.2, 13.3, 13.4
Complete these well before their closing dates. Don't wait until next week. Most the 13.3 and 13.4 problems in homework don't really require lecture; you are computing arc length, curvature, **T**, **N**, acceleration which you can do now using the formulas from the book and posting in my review sheets.

NEW POSTINGS: Course website: https://sites.math.washington.edu/~aloveles/Math126Spring2019/index.html
1. *13.1 Summary*:   https://sites.math.washington.edu/~aloveles/Math126Spring2019/m12613-1review.pdf
2. *13.2 Summary*:   https://sites.math.washington.edu/~aloveles/Math126Spring2019/m12613-2review.pdf
3. *13.3 Summary*:   https://sites.math.washington.edu/~aloveles/Math126Spring2019/m12613-3review.pdf
4. *13.3/4 Practice*:   https://sites.math.washington.edu/~aloveles/Math126Spring2019/13-3Practice.pdf
5. *13.4 Summary*:   https://sites.math.washington.edu/~aloveles/Math126Spring2018/m12613-4review.pdf
6. *Exam 1 Fact Sheet*: https://sites.math.washington.edu/~aloveles/Math126Spring2018/m126Exam1FactSheet.pdf
7. *Exam 1 Review*:   https://sites.math.washington.edu/~aloveles/Math126Spring2018/m126Exam1Review.pdf

OLD EXAMS:
        Math Dept. Archive: https://sites.math.washington.edu/~m126/midterms/midterm1.php
        My Exam Archive: https://sites.math.washington.edu/~aloveles/Math126Spring2019/examarchive.html

For practice with 12.6 (intro to surfaces) material you might try:
Problem 2 from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/w16m126e1.pdf
Problem 1(b) from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/w15m126e1.pdf
Problem 2 from: http://www.math.washington.edu/~m126/midterms/midterm1/m126spr11lovelessExI.pdf

For practice with 13.1 and 13.2 try:
Problem 5 from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/w16m126e1.pdf
Problem 4 from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/sp14m126e1.pdf
Problem 4 from: http://www.math.washington.edu/~m126/midterms/midterm1/mid1_win09_perkins.pdf
Problem 3 from: http://www.math.washington.edu/~aloveles/Math126Spring2013/Taggartf09e1.pdf

For practice with 13.3 and 13.4 try:
Problem 4 from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/w15m126e1.pdf
Problem 1 from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/w16m126e2.pdf
Problem 1ab from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/w15m126e2.pdf
Problem 1a from: https://sites.math.washington.edu/~aloveles/Math126Spring2019/f13m126e2v1.pdf

You should look at more old exams than just these, but this hopefully gives you some targeted practice. I hope some of this helps. See the next page for more studying advice.

ADVICE:
MY EXAM STUDYING STRATEGY WHEN I WAS A STUDENT: I always like to share how I studied when I was in graduate school. I was an okay student as an undergraduate, but I was an excellent student in graduate school. Here was my studying strategy that seemed to work so well for me:

1. **At least 1 week before an exam**, spend an intense night of studying.
    <u>Try to trick yourself into thinking the exam is the next day</u>. Work through several old exams. This studying should consist of 2 elements:
    A. *Problem recognition*: Flip through lots and lots and lots of exams quickly and see if you can figure out how to quickly start each problem. Try to look through 5 exams in 15 minutes and make notes of things that confuse you to come back to later.
    B. *Working out the details*: Carefully work through a few exams in details to practice finishing problems and to practice being careful with your work.

2. After this intense studying session, talk to me or your TA or someone in the MSC to clear up any confusion you have. (Or, like I did, just keep thinking about it on your own, reading and trying examples until you figure it out yourself).

3. **Then at least 2 days before the exam**, put in another night of intense studying. Then when the instructor reviews in class, all the concepts will be fresh in your mind and you will be able to ask good questions.

More days of studying is better. I often started two-three weeks in advance, this is the condensed version. But, if you only could devote two nights to studying, then this is an efficient and effective use of your time and it gives your mind more time to process the information. I hope some of this helps. Now you have to put in the time and effort to really get to know these concepts well. If you find something helpful in these newsletters, please share it with your classmates.

- Dr. Andy Loveless