Closing Thu: TN 5

Final Exam is Sat, June 8, 5:00-7:50pm

Kane 130

AA,AB,AC,AD,CA,CB on main floor

CC and CD in Balcony

Eight pages covers everything (expect two pages on Taylor Polynomials/Series)

Entry Task (I'll give you 10-15 min)

Get out computer/phone, do eval:

126B Course Eval (11:30 Lecture)

126C Course Eval (12:30 Lecture)

Evaluation Notes

- This eval. is for me (TA has a different one).
- I will not see the results until next quarter (I never see your name)
- Comments only go to me.

Course best described as…:

"In your major" means you're a math major. For the vast majority of you, this course is a "core/distribution requirement".

If you finish the eval, try this: Give a Taylor series answer for

$$\int_0^1 e^{-t^2}\,dt$$

Example (*from HW*)

Write down the Taylor series for $\sin(t)$ based at 0. Then use it to give the Taylor series for

$$A(x) = \int_0^x \frac{\sin(t)}{t}\, dt$$

Math 126 Final

1. Bring some form of photo ID. Also know your quiz section.

2. Final grades will be posted by Friday of next week. You can pick up your final next quarter.

3. Allowed:
   (a) One 8.5 by 11 inch sheet of handwritten notes (front and back)
   (b) Ti-30x IIS calculator (this model only)

4. ***Coverage***

Eight pages of questions.

Exam is comprehensive.

Quick Review

Ch. 12: 3D Basics (vector facts, lines, planes, basic surfaces, …)

Ch 13: 3D Curves (accel/vel/position, tangent vector, unit tangent, tangent line, normal vector, curvature, …)

Ch 14/15: 3D Surfaces (traces, partial deriv, max/min, double integrals, …)

TN: Taylor Polynomials and Series (use deriv. to find Taylor Poly., error bounds, Taylor series patterns, …)

A Recent Final Question on
Taylor Polynomials and Series

Winter 2018 / Problem 7

Let $f(x) = x^2 \sin(x^3) + \frac{1}{8-x^3}$.

(a) Find the 6th Taylor polynomial based at 0.

(b) Give the open interval of convergence of the Taylor series for f(x) based at 0.

Winter 2018 / Problem 8

Let $g(x) = \sqrt{3 + x^2}$.

(a) Find the 1st Taylor polynomial based at 1.

(b) Give a bound on the error over the interval [0.5, 1.5].