

# Being a TA in the Math Department

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# Your Guides

Course Website: <https://elybrand.github.io//MATH500/>



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# Overview

## Responsibilities as a TA

Discussion Section

Office Hours

Managing a Grader

## Faculty & Student Interactions

## Homework

# Core Responsibilities

- ▶ Hold weekly discussion sections.
- ▶ Hold weekly office hours.
- ▶ Grade exams (stay tuned)
- ▶ Grade homework (if applicable)
- ▶ Oversee course grader (if applicable)

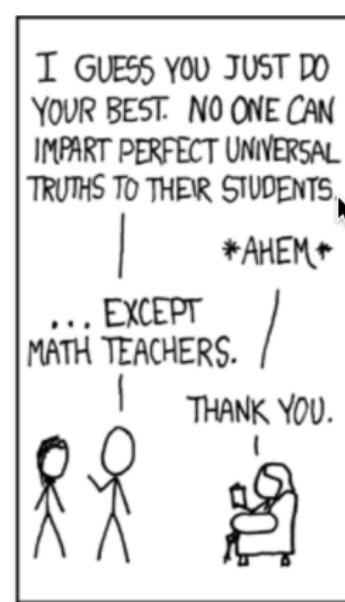
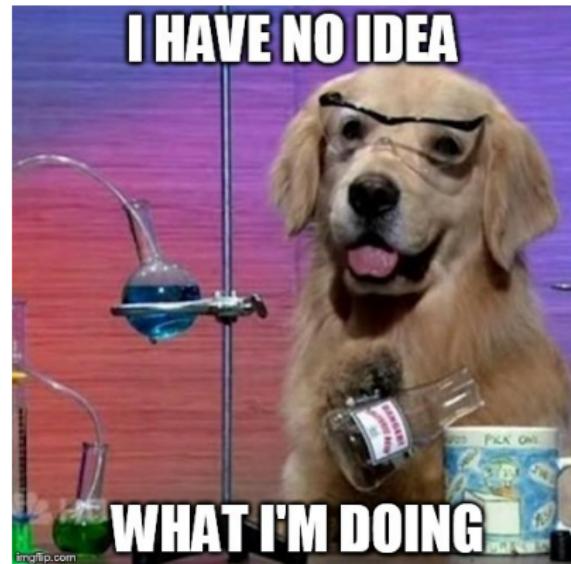


Figure: xkcd.com

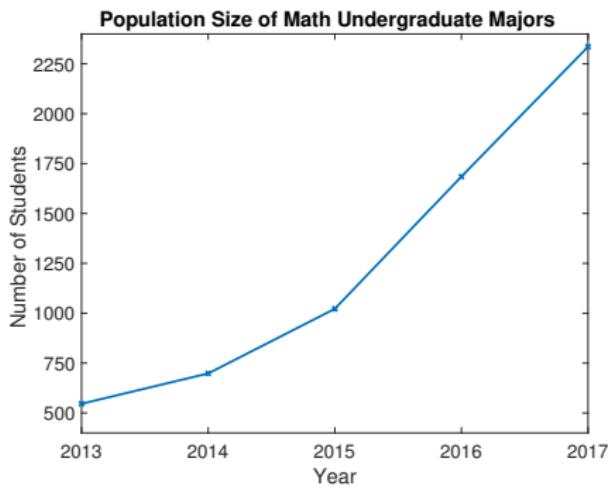
# NOT Your Responsibilities

- ▶ Substitute for the instructor in lecture
- ▶ Write exam questions
- ▶ Work in excess of employment level
- ▶ Assign final course grades



# Why Do We Have Discussion Sections?

- ▶ Most lectures too large for interaction.
- ▶ Opportunity for weekly review.
- ▶ Opportunity for learning by doing.
- ▶ See where students are struggling.
- ▶ Go over past homework set.



## Discussion: The Fine Print

Type of Course	25%	50%
Lower Div (3-20E)	2 Sections	4 Sections
Upper Div (31H, 100+)	1 Section	2 Sections

Table: Number of Discussion Sections by Employment

- ▶ What you cover depends on course and instructor
  - ▶ Recap past week
  - ▶ Homework questions
  - ▶ Introduce new topic

# A Few Suggestions

- ▶ Do not dismiss section early

where can we find basic rules for  $\Sigma$

1/27/18 3:53 PM

there are lots of things instructor believed that we have already knew but we did not actually.

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- ▶ Understand how to do *all* homework problems.

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- ▶ Ask leading questions to encourage participation

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- ▶ Prepare homework hints or extra related problems
- ▶ Ask leading questions to encourage participation
- ▶ Embrace awkward silences

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# Office Hours: Fine Print

Theorem (Minimum Office Hours Requirements)

$$\text{Hours} = 8 \cdot (\% \text{ Employment}).$$

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*If you are employed at 25% (resp. 50%), you must have at least 2 (resp. 4) hours of office hours a week.*

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Courses with MATLAB component (18, 20D) require half of your office hours to be in MATLAB lab.



# Office Hours: A Few Suggestions

- ▶ Be courteous to your office mates.
- ▶ Reserve a room if too many students.
  - ▶ Email frdesk@math.ucsd.edu
- ▶ Run up to the 7th floor
- ▶ Be mindful of your students' schedules.
- ▶ Not a time to lecture. Delegate and multitask.

# Homework Grading

- ▶ Either you or a grader will grade homework.
- ▶ You collect and return homework.
  - ▶ Reserve [one](#) homework box in basement ASAP. Try sharing for class.
- ▶ You provide rubric
- ▶ Proofread comments & scores
- ▶ Gradescope & TritonEd

From: [MATH 152 on Piazza](#) >

To: [REDACTED]

[Hide](#)

MO

## HOMEWORK 2 !!

Today at 10:41 AM

-- Reply directly to this email above this line to create a new follow up. Or [Click here to view](#).--

A new private Question was posted by [REDACTED]

## HOMEWORK 2 !!

WE WISH TO WORK ON HW2 TODAY.

WHEN CAN IT BE POSTED?

# Interaction with Instructor

- ▶ Be sure you understand what you are expected to do and when. Do it on time.
- ▶ Respect instructor's time. Show up promptly for meetings, answer emails.
- ▶ Check in weekly with instructor, by email or in person. What material is being covered? Any divergence from textbook? Upcoming quizzes or tests. Student issues or misconceptions.

# Interaction with Instructor

- ▶ Tasks assigned by instructor are not optional! Grading, review sessions, proctoring, posting solutions. They should not exceed 20 hours per week, however.
- ▶ Try to resolve disagreements with instructor first. Other resources: Eric, Jeff, or Graduate Vice-Chair Verstraete.
- ▶ Tell instructor if you will be away. Arrange a substitute for section or office hours. Do not leave early at the end of the quarter.

# Interaction with Students

- ▶ Be respectful, encouraging, and helpful. Math is hard for many. No put-downs for basic questions or errors. No stereotypes by gender, ethnicity, nationality, sexual orientation, etc.
- ▶ Keep all appointments: section, office hours, exams. Be prompt.
- ▶ Be fair and impartial. Respect confidentiality of student data.
- ▶ Be prepared and competent, but not a know-it-all, showoff, or intimidating.

# Interaction with Students

- ▶ Explain math at an appropriate level. Calculus is not analysis. Algebra and terminology may be challenging for students.
- ▶ Encourage student participation: questions, reasoning, discussion. No stigma for errors. You need to hear them to know what's confusing them.
- ▶ Help students notice patterns. This is not automatic.

# HOMEWORK: Teaching Statement + Duties

- ▶ Read your list of responsibilities as TA (see course webpage).
- ▶ How do **you** view mathematics in the scope of university education?
- ▶ Make it personal: don't look at other examples!
- ▶ 1 page. 1 inch margins. Due next week.
- ▶ Upload as pdf to Gradescope. Check your email for invite.
- ▶ Check website for related article.