

**Cohort  
Meetings  
with Mentor**

**Fall 2018**

## **Overall Vision**

The goal is to enable the success of all cohort participants in learning calculus involving two types of meetings:

- 1) Twice-weekly study meeting with all cohort members focusing on learning the ideas of calculus
- 2) Bi-weekly meeting with all cohort members and their mentor to enable meta-cognitive reflection on attitudes and approaches to learning, to studying, and to being students.

### *From The Undergraduate Experience*

In well-known research on calculus students at Berkeley, mathematician Uri Treisman (1992), looking to understand differences in student performance, compared the study habits of Black calculus students with those of Chinese students. Treisman found that although Black students worked diligently, they studied mostly in isolation. The Chinese students, in contrast, reviewed homework assignments together, checked each other's answers, and discussed problem sets over meals. Seeing this, Treisman offered Black students an intensive workshop environment in addition to the regular class, "emphasizing group learning and a community life focused on a shared interest in mathematics" (pp 368). The results were dramatic, with Black students who studied with peers performing comparably to all of their classmates in calculus. Treisman then developed a widely replicated pedagogy that emphasized to all students "that success in college would require them to work with their peers, to create for themselves a community based on shared intellectual interests and common professional aims" (pp 368).

## **Generic Meeting Structure – 30 minutes total**

- Circle up the desks/chairs for each gathering so folks face each other during meetings.
- The mentor is hopefully more of a facilitator during discussions than a scholarly teacher; although mentors are chosen because they have experience and wisdom to share.
- Safe Space rules are important: respectful listening (one mic); confidentiality (what's said in cohort stays in cohort); challenge ideas rather than people.
- The overall timeline is: 5 minute warm-up; 20 minutes to discuss topic; and 5 minutes to wrap-up and share logistics for next time.
- Always bring snacks of some kind to the cohort meetings.

## **Overall Schedule**

- Week 1 – Organizing, Setting the Stage, Expectations, Values
- Week 2 – Growth Mindset
- Week 4 – Studying
- Week 6 – Wellness
- Week 8 – Time Management
- Week 10 – Diversity, Equity, Inclusion, Commonality
- Week 12 – What do you think now? Revisiting weeks 1 – 10
- Week 13 – Celebration and Wrap-Up

## Week 1 – Organizing and Setting the Stage

- **Warm-Up** (approx. 5 minutes)  
All Eyes on Me: Ask participants to stand in a circle facing inward. Tell the group this game is about eye contact. The game begins with everyone bowing their heads, during which they will each choose one other person in the circle with whom they will make eye contact. When the mentor says “go”, everyone looks up at their person. If two participants make eye contact, they yell (loud voice!) and step out of the circle. Repeat until two people are left. Maybe repeat the whole process/game based on time.
- **Introductions** (approx. 5 minutes)  
Everyone shares: Name, where they are from, their favorite color and number. The mentor can go first to model this intro
- **Setting the stage** (approx. 1-2 minutes)  
This cohort is about enabling each other’s success in learning calculus this Fall 2018.
- **Generating a list of Expectations/Norms** (8-10 minutes)  
On a giant post-it-pad, have the students identify their expectations for their cohort, both for the study meetings and the meetings with the mentor. Let them generate this list, perhaps use MTG-01-expectations-exercise.docx. (see Page 12) Important ideas include:
  - Be at every meeting, on-time, with calculus materials ready to go
  - Safe Space = respectful conversation, confidentiality, challenging ideas not people
  - Encouraging perspective and foreshadow growth mindset
- **Value writing Exercise** (approx. 5-7 minutes)  
Handout a “nice” piece of paper and pens, and have students spread out. Give the students 5 – 7 minutes to state and write about something that is personally important to them. It may or may not have anything to do with calculus or school. This could be “friends” or “family” or “sports” or “music” or “health” or “knowledge” or “faith” or other things. Whatever they write will remain confidential and not shared with anyone else, unless they want and choose to do so. The mentor won't collect these - students can save them, throw them away, share them, or whatever they please.
  - MTG-01-value-writing-exercise.docx (see Page 13) could be used here
  - Note – studies have shown that such an exercise has a positive impact on academic success. See Cohen 2006 (see Pages 14-18) and Miyake 2010 (see Pages 19-23)
- **Organizational Details/Reminders** (approx. 5 minutes)
  - Share the location and time of study meetings and Week 2 meeting with mentor
  - Share HW handout about the Richardson TED Talk on “growth mindset” for next time: MTG-02-growth-mindset-TED-by-Richardson.pdf (see Page #)
  - If relevant, what snacks do you want/like for meetings with mentors?

### Supplies Needed

- Giant Post-it-Pad and Markers
- Nice Paper for Value Writing Exercise (see Page 13) and Pens
- Handout with organizational information and contact information
- Handout for TED Talk reflection (see Page 24) for HW for Week 2

## Week 2 – Growth Mindset

- **Homework**

Watch TEDx Talk Mental Toughness: Think differently about your world (15:18 minutes long) at <https://www.youtube.com/watch?v=LCPgvTRftZg> and respond to the reflection handout: MTG-02-growth-mindset-TED-by-Richardson.pdf (see Page 24)

- **Warm-Up** (approx. 5 minutes)

Birthday Line-Up: Group members to organize themselves into a line, from youngest to oldest, without talking. The challenge in this activity is for group members to communicate their birthdays without speaking. Reflection Questions: What critical strategy made this work? How long did it take you to figure out this strategy? What does this teach us about the power of language? How much faster would the process have gone with language?

- **TED Talk Conversation** (approx. 20 minutes)

Discuss their answers to the prompts on the handout as well as other related ideas, which might include the following:

- Have folks share their three highlights from the talk
  - Discuss instant vs delayed gratification
  - Discuss ability focus vs effort focus
  - Highlight “productive” persistence and mindful awareness of what is and is not productive – how might they recognize these, what are they?
  - Do they see a connection to warm-up: having the right “tool(s)” makes a profound difference in effectiveness and timeliness.
  - Wrap-up with restating the idea of “growth mindset”: focus is on investing effort in improving and developing over time, keeping in mind that change is incremental and that we are all in the process of becoming.
- **Check on study meetings and Share Organizational Details/Reminders** (approx. 5 minutes)
    - How are the study meetings going? In the spirit of growth mindset – what is working for the study meetings? What could be better? Are folks living up to norms and expectations? Any changes to make with those?
    - Recall the location and time of study meetings, and Week 4 meeting with mentor
    - Share HW handout for self-reflecting on studying for next time: WEEK-04-HW-studying-self-reflection.docx (see Page 25)

### Supplies Needed

- HW Handout for next time on self-reflection on studying (see Page 25)

## Week 4 – Studying

- **Homework**

Complete studying self-reflection: WEEK-04-HW-studying-self-reflection.docx (see Page 25)

- **Warm-Up** (approx. 3 minutes)

Shakedown: Have the group stand/sit in a circle. They count down from 10 to 1 while shaking their right hand, and then repeat the count down from 10 to 1 while shaking their left hand, and then their right foot, and then their left foot. Next, count down from 9 to 1 while shaking their right hand, then their left hand, then their right foot, and then their left foot. The countdown progresses until everyone is saying/shouting 1!, 1!, 1!, 1!, while rapidly shaking their right hand, left hand, right foot, and then left foot. Demonstrate as needed. If someone in the group is not physically able to do this, then identify alternative actions.

- **Discuss studying** (approx. 20 minutes total)

- (approx. 5 minutes) Label one giant post-it “Areas of Strength” and label another “Areas for Improvement.” Have the students share ideas from their self-reflection in each category, recording their thoughts on the appropriate post-it. Perhaps have each student share one from each, and then shift to the next student to share one of each and so on. If an idea is repeated, put a checkmark or some other indicator of its repetition. Discuss and process their ideas – what stands out?
- (approx. 10-12 minutes) Distribute WEEK-04-MTG-thoughts-on-studying.pdf (see Page 26) and have the students read through the handout with a pen or highlighter in hand, identifying what they find most interesting and challenging. Have them discuss what they highlighted because they agree and/or because they disagree.
- (approx. 3 minutes) Commitment to Action Exercise: Distribute an index card. On one side, write “I will continue to...” and have them identify two specific actions that are strengths of their studying that they will continue to follow through on. On the other side, write “I will start to...” and have them identify two specific actions they will take in the next week to improve how they study.

- **Check on study meetings and Share Organizational Details/Reminders** (approx. 5 minutes)

- How are the study meetings going? In the spirit of growth mindset – what is working for the study meetings? What could be better? Are folks living up to norms and expectations? Any changes to make with those?
- Recall the location and time of study meetings, and Week 6 meeting with mentor
- Share HW reading: WEEK-06-HW-TIME-power-of-sleep.pdf (see Pages 27-30)
- **NOTE: BE SURE** to check in on Exam #1. How do folks feel? Offer encouragement. Remind folks that, as their mentor, you are present to listen, help, encourage, brainstorm, and/or otherwise support their efforts.

### Supplies Needed

- Giant Post-it-Pad and Markers
- Handout on “Some Thoughts and Ideas on Studying” (see Page 26) and perhaps highlighters
- Index Cards and Pens for Commitment to Action Exercise
- HW Handout for next time TIME article on Power of Sleep (see Pages 27-30)

## Week 6 – Wellness

- **Homework**

Read “Power of Sleep” TIME article by Alice Park and come to the meeting prepared to discuss the ideas shared in the article.

- **Warm-up** (approx. 5-7 minutes)

Two Truths and a Lie: Give each participant an index card. On it they write three statements about themselves, two are true and one is false. Ask for a volunteer to read their statements to the group and then folks guess which are true and which is false. After a few guesses, the volunteer identifies which is which. Repeat until everyone has gone.

- **Discussion of Wellness** (20 minutes)

- (approx. 5 minutes) What did you think about the “Power of Sleep” article? Have everyone share a couple facts – what matched up with what they already knew? What surprised them or was new? Is there anything they would want to argue against? Is sleep relevant to your work as a student? Are you good with your choices in this area or not?

- (approx. 10 minutes) Label one giant post-it “More Healthy” and label another “Less Healthy.” Have the students share ideas of specific actions that fall into each category, recording their thoughts on the appropriate post-it. Encourage them to share ideas that touch on many different aspects of wellness in life, and keeping in mind that they are physical, social, intellectual, and spiritual human beings. Discuss and process their ideas – what stands out? What’s surprising? What’s “standard”? Is there anything missing?

- Are “Two Truths and a Lie” relevant to how we approach wellness?

- (approx. 3 minutes) Commitment to Action Exercise: Distribute an index card. On one side, write “I will continue to…” and have them identify two specific actions that are strengths of how they pursue wellness that they will continue to follow through on. On the other side, write “I will start to…” and have them identify two specific actions they will take in the next week to improve how they pursue wellness.

- **Check on study meetings and Share Organizational Details/Reminders** (approx. 5 minutes)

- How are the study meetings going? In the spirit of growth mindset – what is working for the study meetings? What could be better? Are folks living up to norms and expectations? Any changes to make with those?

- Recall the location and time of study meetings, and Week 8 meeting with mentor

- Share HW exercise: WEEK-08-HW-Time-Inventory.docx (see Page #) Be honest, complete this one week before the next meeting and then compare retroactively against what you really did, and come prepared to share and discuss.

## Supplies Needed

- Index Cards and Pens for Warm-Up and Commitment to Action Exercise
- Giant Post-it-Pad and Markers
- HW Handout for next time: Time Inventory Exercise (see Page 31)

## Week 8 – Time Management

- **Homework**  
Complete the Time Inventory Exercise at WEEK-08-HW-Time-Inventory.docx (see Page 31)
- **Warm-Up** (approx. 2-4 minutes)  
Honey I Love You: Break into pairs and then the pairs decide who will be person A and who will be person B. Person A asks person B “Honey, do you love me?” Person B must keep a straight face and respond, “Honey I love you, but I just can’t smile.” If person B smiles, then person A wins; if person B resists smiling, then person B wins. Repeat the exercise with winners from each pair, forming new pairs until there is a single winner.
- **Discussion of Time Management** (approx. 22 minutes)
  - Time management is the essential life skill of deciding what you want out of your day, your week, and your life, and making a plan to get there. This session’s goal is to have a conversation about what is really important to each of you and reflecting on whether these priorities are apparent in how you invest your time.
  - Discuss the Time Inventory Exercise (approx. 5 minutes) – what did you think of this? What surprised you? What were you happy about? Did anything bother you?
  - Think (approx. 5 minutes) – someone once said: “There is always enough time for the important things. If it is important, you should be able to make time to do it.” This may or may not be true. But thinking in this direction: what’s important to you? Write down some of your specific priorities on a private index card; but, be ready to share too.
  - Pair (approx. 5 minutes): Share your priorities in a dyad or triad and discuss these questions (Mentor, pre-record on a giant post-it or on a handout): Do you spend enough time on the things you value most? What do you want to make more time for? How do your family and friends relate to time? Do they use their time well? How so (or not)? Is there something you do that wastes a lot of time that you’re embarrassed to admit?
  - Share (approx. 5 minutes): Coming back to the large group as a whole, how was that? What did you discuss? Did you learn anything from each other?
  - Commitment to Action Exercise (approx. 2 minutes): On the back of your index card state two specific ways that you will adjust how you spend your time in the coming week to better align your priorities with how you invest your time.
- **Check on study meetings and Share Organizational Details/Reminders** (approx. 5 minutes)
  - How are the study meetings going? In the spirit of growth mindset – what is working for the study meetings? What could be better? Are folks living up to norms and expectations? Any changes to make with those?
  - Recall the location and time of study meetings, and Week 10 meeting with mentor
  - Share HW reading: WEEK-10-HW-ThisIBelieve-writing-exercise.docx (see Page 32)

### Supplies Needed

- Giant post-it and markers, or handout with “pair” questions
- Index cards and pens
- HW Handout for next time WEEK-10-HW-ThisIBelieve-writing-exercise.docx (see Page 32)

## Week 10 – Diversity, Equity, Inclusion, Commonality

- **Homework**

Respond to the “This I Believe” collection of questions from WEEK-10-HW-ThisIBelieve-writing-exercise.docx (see Page 32) and come prepared to discuss your responses.

- **Warm-Up and Discussion** (approx. 20-25 minutes)

- For this particular meeting, the Warm-Up flows directly into the Discussion.
- WEEK-10-MTG-Diversity-exercise.docx (see Pages 33-35) provides directions and a list of questions for an “Observing Our Diversity and Our Commonality Exercise”.
- After the exercise, transition to discussion. The following questions are ideas, but the conversation can be pretty free-flowing. Keep in mind the key points highlighted below.

- **Possible Discussion Questions**

- What was this exercise like for you? What did you like? What didn’t you like?
- Was there anything that surprised you?
- What was it like to be the only one standing?
- What was it like to not have anyone stand? Who are they? Why aren’t they here?
- What is the value in knowing the ways people identify themselves?
- What opportunities do you have to understand the people in your school? Class? Dorm?
- How are people classified? Any patterns in the questions asked (race, gender, class,...)?
- How do the “This I Believe” questions tie into this discussion and experience?

- **Key Points**

- We have connections with everyone in the room, no matter how similar or how different they may have thought they were. We are all more similar than we think.
- It is both scary and empowering to be the only one who is different.
- Sometimes we don’t understand the ways in which people identify themselves.
- Our diversity is one source of our richness. We can learn from each other in our differences. We shouldn’t be scared of differences, although sometimes it is unsettling to think we don’t have anything in common with a person, because inevitably, we do have something in common.
- When we classify people, we often put them in a “box” (they hang with stoners, they must do drugs and be a bad person). (Process note: you might have to clarify what you mean by “box”. A box is referring to a place where we might put someone that does not leave space for anything but our classification or interpretation of who they are.)

- **Check on study meetings and Share Organizational Details/Reminders** (approx. 5 minutes)

- How are the study meetings going? In the spirit of growth mindset – what is working for the study meetings? What could be better? Are folks living up to norms and expectations? Any changes to make with those?
- Recall the location and time of study meetings, and Week 8 meeting with mentor
- Share HW Handout: WEEK-12-HW-Revisiting.docx (see Page #)

### Supplies Needed

- Mentor needs a copy of WEEK-10-MTG-Diversity-exercise.docx (see Pages 33-35)
- Copies of HW Handout: WEEK-12-HW-Revisiting.docx (see Page 36)



## Week 12 – What do you think now? Revisiting weeks 1 – 10

- **Homework**

Respond to the “Revisiting” exercise questions from WEEK-12-HW-Revisiting.docx (see Page #) and come prepared to discuss your responses.

- **Warm-Up = repeat a past favorite** (approx. 5 minutes)

- Week 1 warm-up = All Eyes on Me
- Week 2 warm-up = Birthday Line-Up (or maybe not a real option)
- Week 4 warm-up = Shakedown
- Week 6 warm-up = Two Truths and a Lie (note – need index cards)
- Week 8 warm-up = Honey I Love You

- **Sharing Responses to the Revisiting Exercise Homework** (approx. 10 minutes)

- Pre-label 10 giant post-its with appropriate versions of “Expectations and Values: I learned...” and “Expectations and Values: I now understand or wish I had known...” for each of the 5 weeks on the reflection exercise. Post on walls around the room.
- Have the students individually visit each of them, recording a phrase or a couple words expressing their ideas from their homework reflection on each post-it. If someone has already written your idea, then put a check mark next to it. If you really like an idea that’s already there, then put a star or smiley-face next to it.
- Note – let them know that the ideas they share will be used to improve the next rendition of this cohort plan. Mentors - Please save and/or take pictures of these and share them with Alex, Alison, and Joel for incorporation into next time.

- **Discussion** (approx. 10 minutes)

- What do you think of what’s written down? What stands out? What surprises you?
- From the “I learned” lists, what do you notice? Are folks recalling different things? Or phrasing and framing the same ideas in different ways? What does that tell us (diversity)?
- From the “I now understand or wish I had known” lists, what do you notice?
- Highlight Growth Mindset in the context of wrapping up the term and prepping for finals: focus is on investing effort in improving and developing over time, keeping in mind that change is incremental and that we are all in the process of becoming.
- As part of this, share WEEK-12-MTG-Ten-Studying-Rules.pdf (see Pages 37-38)

- **Check on study meetings and Share Organizational Details/Reminders** (approx. 5 minutes)

- How are the study meetings going? In the spirit of growth mindset – what is working for the study meetings? What could be better? Are folks living up to norms and expectations? Any changes to make with those?
- Recall the location and time of study meetings, and Week 13 meeting with mentor.
- Note – check in with how folks feel about the end of the term, finals, papers, grades.

### Supplies Needed

- Giant Post-it-Pad and Markers
  - Copies of WEEK-12-MTG-Ten-Studying-Rules.pdf (see Pages 37-38)

## Week 13 – Celebration and Wrap-Up

- **Context**

This meeting should intentionally be shaped around where the cohort is at this late point in the term. Are they stressed in ways that point toward needing a quick gathering? Or are they stressed in ways that point toward spending some more time with each other in a more unstructured context? Do they need more encouragement? Or more challenge to work harder? Probably different folks are in different places, and then mentor will have to take their cues from the group as best as possible.

- **Warm-Up** (approx. 0-5 minutes)

Let the group decide – do they want to do one, or take a pass? If so, have them pick an old favorite if they want to do one, although “Shakedown” from Week 4 might be best. Something physical and simpler to do.

- **Discuss – possible topics include** (approx. 10-15 minutes)

- Overall - How is the term wrapping up? How do they feel about their calculus final? About their other papers and exams? Are they good with what they have learned? With their grades?
- Final Exams – Questions? Concerns? Thoughts? What are your expectations? What are you looking forward to? What are you concerned about?
- Study Meetings – Yes or No as we head into finals? If so, how might they be morph so as to enable success in learning for and performing well on the final?
- Wrap up by congratulating them on making it to the end of the term and for all they have invested in calculus and their other courses. Remind them what an incredible privilege they have in being able to invest months of their lives in this kind of work and study. Yes, it’s been hard, but they have all become so much more. Touch on growth mindset here as well as a central pillar of the community that is this cohort.

- **Final Cohort Survey** (approx. 10-15 minutes)

- Please be sure to reserve time for this to enable our reflection on the areas of strength and the areas for improvement as we think about the next rendition of this cohort program.

### Supplies Needed

- Final Cohort Surveys (see Page 39-45)