**Club Advisor Meeting**

**Friday 4/21/2017, 11 am - 12pm AP&M 7421**

**Attendees:**

* Zack Garza
* Keenan Chan
* Peter Amidon
* Aiden Yoon
* Simon Hu

**Past Business**

1. Outreach emails/flyers - advice/feedback from Jeffrey?
2. Cocurricular record

**Item 1. SIAM/AMS**

Steps:

1. Letter of Intent
   1. A brief outline of the club’s structure and organization
   2. Must be printed on a university letterhead
   3. Must be signed by a faculty member
2. Faculty Advisor
   1. Advisor must be a member of SIAM in good standing
   2. Jeffrey isn’t a member of SIAM, so we may have to ask someone else
   3. Possible faculty members
      1. Ronald Graham
      2. Scott Baden
      3. Ruth Williams
      4. Randolph E. Bank
      5. Melvin Leok
      6. William McEneaney
      7. Michael Holst
      8. Phillip Gill
      9. J. Helton
      10. James Bunch
   4. Couple more in Mechanical and Aerospace Engineering
      1. Jeffrey majored in MAE. Maybe he can help us outreach there
3. Formal petition
   1. Require 12 members
      1. 12 members must be members of SIAM
      2. 1 signature MUST be from a faculty member
   2. Any suggestions on how to get signatures?
4. More documents needed as well
   1. Yearly budget
   2. Club activities
   3. Etc.
   4. We can handle it from here on out

**Item 2. Club Outreach**

**Overview**

1. Reaching out to faculty
   1. Not just for faculty-student events
      1. Extend research symposium to other quarters
      2. End-of-year faculty banquet
      3. Ideas from Jeffrey on connecting profs and students?
   2. Need professors for integration bee
2. Reaching out to Graduate students
   1. How can we better involve grad students in our activities?
      1. More importantly, how can we better connect grads and undergrads?
   2. Common problems: undergrads in upper divs could often use help.
      1. Is it possible to allocate funding to pay grad students for this kind of thing?
   3. Grad student panels
      1. Extremely useful! How can we set these up and get them going more often?
   4. Maybe we can work with the graduate student association somehow
      1. Advice from Jeffrey?
3. Building alumni relations
   1. How can we get in contact with current alumni?
   2. How can we maintain contact with graduating students?

**Item 3. Co-curricular Record**

**Overview**

**Item 4: Securing a Space for Math Students**  
  
**Overview**This is something a number of students have expressed concerns about - the AP&M building itself has virtually no physical spaces for students to study.  
  
Couple this with the general overcrowding of campus, the difficulty of getting good wireless internet and finding electrical outlets, many students are forced to trek halfway across campus just to sit down and do their math homework assignments.

Issues this causes: kills the potential for any kind of math culture or community here at UCSD. People can’t easily form study groups, organically meet each other, or get help for upper div classes. Increases isolation. Leads to AP&M being a ghost town, makes it difficult for us as a club to bring people together - people don’t feel like AP&M is “their own”, it’s just a building they show up to for a few classes and then leave.

Not just a problem for students - makes the Math department unmemorable for alums, less welcoming for potential employers to visit, keeps event attendance low despite high number of math students.

**Potential Solution**  
Dedicate one room in AP&M to be a “Mathematics Lab”, a room that’s open to students semi-regularly.  
  
Features that would be nice:

1. An spacious room with semi-regular open hours
2. Furniture layout conducive to collaboration/studying - large tables with outlets built into them, chalkboards easily available (like B402 without desks)
3. Space for math-related objects
   1. Like 3d printed shapes from topology, different kinds of knots, math “toys”
   2. A bookcase for exchanging textbooks
4. Funding to pay for tutors/assistants
   1. Having advanced upper-div or grad students available to help with questions

**Item 5: Introducing More Advanced and Rigorous Classes**

**Overview**

The class selection in our department is lacking compared to highly-ranked universities. But there is some precedent for having more advanced classes in the undergraduate curriculum within the UC system. In particular, UCLA and Berkeley offer a number of advanced math electives.

Other schools also have a number of customized classes with special formats -

* Reading classes that pair up 3-6 undergrads with a grad student to study advanced topics
* Group Study classes, in which the students present the material and a knowledgeable faculty member oversees the studying/research process and guides topic selection

**Examples of Specific Classes**

1. UCLA
   1. Fourier Analysis
   2. Machine Learning
   3. Honors versions of Algebra, Real Analysis, Complex Analysis
   4. Theory of Computability
   5. “Theoretical” Linear Algebra
   6. Classical Geometries
   7. Algorithms
2. Berkeley
   1. Algebraic Topology
   2. Algebraic Geometry
   3. Set Theory
   4. Fourier Analysis (again!)
   5. Classical Geometries (again!)