Tau Beta Pi
California Epsilon
2018-2019 Project Report

University of California, Los Angeles
Henry Samueli School of Engineering and Applied Science
# Table of Contents

1 **Tau Beta Pi - California Epsilon** 6  
   1.1 Officer Board 7

2 **National and District Conferences** 9  
   2.1 TBP National Conference 9  
   2.2 D16 Fall Leadership Conference 11  
   2.3 TBP D16 Spring District Conference 12

3 **Educational and Professional Development** 13  
   3.1 Internship Insider Night 13  
   3.2 Resume Workshop 14  
   3.3 UCLA Samueli Dean’s Student Showcase (DSS) 15  
   3.4 Class Planning Workshop 16  
   3.5 Alumni Tech Talk 17  
   3.6 Girls Networking Event 18  
   3.7 Patent Law Infosession 19

4 **Community Service** 21  
   4.1 Blood Drive 21  
   4.2 Academic Outreach (Fall) 22  
      4.2.1 Math 32A Midterm Review 1 22  
      4.2.2 Math 32B Midterm Review 1 23  
      4.2.3 Physics 1A Midterm Review 1 24  
      4.2.4 Math 32A Midterm Review 2 25  
      4.2.5 Math 32B Midterm Review 2 26  
      4.2.6 Math 32A Finals Q&A 27  
      4.2.7 Physics 1A Finals Q&A 28  
      4.2.8 Math 32B Finals Q&A 29  
   4.3 Academic Outreach (Winter) 30  
      4.3.1 Physics 1C Midterm Review 1 30  
      4.3.2 Math 32A Midterm Review 1 31  
      4.3.3 Math 32B Midterm Review 1 33  
      4.3.4 Physics 1B Midterm Review 1 34  
      4.3.5 Chemistry 30B Midterm Review 1 36  
      4.3.6 Physics 1A Midterm Review 1 37  
      4.3.7 Physics 1C Midterm Review 2 39  
      4.3.8 Physics 1A Midterm Review 2 40  
      4.3.9 Math 32B Midterm Review 2 (Session 1) 41  
      4.3.10 Math 32A Midterm 2 Review 42
4.3.11 Physics 1B Midterm Review 2 44
4.3.12 Math 32B Midterm Review 2 (Session 2) 45
4.3.13 Math 31A Midterm Review 2 46
4.3.14 Physics 1B Final Q&A 48
4.3.15 Math 31A Final Q&A 49
4.3.16 Physics 1A Midterm Review 2 50
4.3.17 Physics 1A Final Q&A 52
4.3.18 Math 32B Finals Q&A 54
4.3.19 Physics 1C Final Q&A 56
4.4 Academic Outreach (Spring) 57
  4.4.1 Math 32B Midterm Review 1 57
  4.4.2 Physics 1B Midterm Review 1 58
  4.4.3 Math 32A Midterm Review 1 59
  4.4.4 Physics 1C Midterm Review 1 61
  4.4.5 Physics 1A Midterm Review 1 62
  4.4.6 Physics 1B Midterm Review 2 63
  4.4.7 Math 32B Midterm Review 2 64
  4.4.8 Math 32A Midterm Review 2 65
  4.4.9 Physics 1C Midterm Review 2 67
  4.4.10 Physics 1A Midterm Review 2 68
4.5 EMCC (Fall) 69
  4.5.1 Nora Sterry Elementary School Fall Festival 69
  4.5.2 EMCC at Nora Sterry Elementary School (Ice Cream) 70
  4.5.3 EMCC at Nora Sterry Elementary School (Non-Newtonian fluid) 71
  4.5.4 EMCC at Nora Sterry Elementary School (Density) 72
  4.5.5 EMCC at Nora Sterry Elementary School (Slime) 73
4.6 EMCC (Winter) 74
  4.6.1 EMCC at Nora Sterry Elementary School (Marshmallow Catapult) 74
  4.6.2 EMCC at Nora Sterry Elementary School (Lemon Volcanoes) 75
  4.6.3 EMCC at Nora Sterry Elementary School (Bacteria) 76
  4.6.4 EMCC at Nora Sterry Elementary School (Invisible Ink) 77
  4.6.5 EMCC at Nora Sterry Elementary School (paper airplanes) 78
4.7 EMCC (Spring) 79
  4.7.1 EMCC at Nora Sterry Elementary School (Density) 79
  4.7.2 EMCC at Nora Sterry Elementary School (Paper Rockets) 80
  4.7.3 EMCC at Nora Sterry Elementary School (Slime) 81
4.8 Tutoring 82
  4.8.1 Fall Tutoring 82
  4.8.2 Fall Review Sheets 84

3
5 Chapter and Social Events

5.1 Fall Retreat 2018 87
5.2 Koala T Social 88
5.3 Ultimate Frisbee 89
5.4 Board Game Night 90
5.5 Karaoke Night 91
5.6 Netflix N Chill 92
5.7 TBP Study Nights 93
5.8 Winter Retreat 2019 94
5.9 Netflix N Chill 95
5.10 Hammer Museum 96
5.11 Ultimate Frisbee Game 97
5.12 9th Annual Rube Goldberg Competition 98
5.13 KBBQ 103
5.14 Board Game Night 104
5.15 Brunch Social 105
5.16 TBP/HKN/UPE Networking Night 106
5.17 Fall 107
  5.17.1 Fall Candidate Orientation 107
  5.17.2 Candidate Sorting 108
  5.17.3 Bent Polish 109
  5.17.4 Meet and Greet 110
  5.17.5 Candidate Quiz 111
  5.17.6 Fall Officer Information Session 112
  5.17.7 Fall Initiation 113
  5.17.8 Fall Officer Elections 115
5.18 Spring 116
  5.18.1 Fall Candidate Orientation 116
  5.18.2 Officer Meet and Greet 118
  5.18.3 Scavenger Hunt 119
  5.18.4 Bent Polish 120
  5.18.5 Candidate Quiz 121
  5.18.6 Research Networking Night 122

6 Meetings and Additional Resources 123
6.1 Fall Officer Meetings 123
6.2 Winter Officer Meetings 124
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3 Spring Officer Meetings</td>
<td>125</td>
</tr>
<tr>
<td>6.4 Sample Meeting Minutes</td>
<td>126</td>
</tr>
<tr>
<td>6.5 Dean’s Letter to Parents</td>
<td>131</td>
</tr>
<tr>
<td>6.6 Candidate Orientation Intro Slide</td>
<td>132</td>
</tr>
<tr>
<td>6.7 Candidate Requirement Packet</td>
<td>133</td>
</tr>
<tr>
<td>7 Closing Remarks</td>
<td>137</td>
</tr>
</tbody>
</table>
1 Tau Beta Pi - California Epsilon

The California Epsilon Chapter was founded in 1952 at the University of California, Los Angeles. The California Epsilon Chapter continues to serve as one of the leading engineering societies on campus and is recognized for the various leading roles we take on in the engineering community. For example, members of Tau Beta Pi have the honor every year to serve as student marshals during commencement. Tau Beta Pi members also serve the engineering community on campus by providing several free services to students.

A major focus in our involvement in the engineering community is the free drop-in tutoring program that is offered for the majority of each academic quarter by candidates, members, and officers. We also provide review sessions for lower division math and science courses that are required for engineering. By offering these programs, we give back to the community and increase our presence on campus.

Our presence on campus is further established through our projects and workshops that we host throughout the year on a regular basis. This year, we held our 8th annual Rube Goldberg Competition and aimed to reach the campus engineering community through social events and interactive tutoring programs. These events aim to bring engineers from several disciplines together to compete in a fun and friendly environment. In addition, we host a number of workshops covering topics such as internships, graduate school, and resumes. Furthermore, new initiatives such as the corporate sponsorship packet seek to establish partnerships with companies to help fund and become involved with TBP activities, incentivizing UCLA engineering students to join the honor society for its connections.

We are continuing to strive to improve our chapter through our services to the community and to our members. As our chapter expands its activities and improves on our current ones, we hope to continue demonstrating excellence in engineering at UCLA.
1.1 Officer Board

Summer - Fall Officer Board
President: Johnny Lee
Vice President: Kushal Nimkar, Alan Mangosong
Secretary: Christopher Chen
Treasurer/Corporate: Victor Xue, Elijah Peeters
Academic Outreach: William Choi, Raymond Kwan, Vinya Bhuvan, Kevin Lian, Vito Canuso, Alex Lim, Eric Yang
Education Outreach: Bharat Pradeep, Roey Paz-Priel, Liam Hurley
Webmaster: Carter Wu, Vincent Cheng, Jeffrey Yun, Carlos Leal, Vincent Cheung, Derek Chu
Tutoring Chair: Harsh Srivastav, Jingjing Nie
Social Chair: Trey Crossley
Community Service: Patrick Minassians, David Carrillo
Member Coordinator: Michael Chen, Chadi Nahal, Matthew Horner
Publicity: Thomas Horn
Rube Goldberg Lead: Keshav Tadimeti, Jacob Swing, Kyle Wong
Club Liaisons: Vincent Cheung, Ramya Satish, Sohni Thakkar, Linus Chen
Graduate Student Advisor: Dennis Wang
Faculty Advisor: Bill Goodin

Winter - Spring Officer Board
President: Bharat Pradeep
Vice President: Roey Paz-Priel, William Choi
Secretary: Christopher Chen, Aaron Wissing
Treasurer: Victor Xue, Vincent Lau
Corporate Relations: Elijah Peeters, Saibalaji Atmakuri, Anirudh Balasubramanian
Academic Outreach: William Choi, Raymond Kwan, Vinya Bhuvan, Kevin Lian, Vito Canuso, Alex Lim, Eric Yang, Chadi Nahal, Noa Nambu, Kecheng Kao, Keita Nadalin, Nicolas Zani, James Wang
Education Outreach: Bharat Pradeep, Roey Paz-Priel, Liam Hurley
Webmaster: Carter Wu, Vincent Cheng, Carlos Leal, Vincent Cheung, Derek Chu, Jorge Pineda, Mark Farber
Tutoring Chair: Harsh Srivastav, Jingjing Nie, Nicolas Zani, Christina DeBenedetto
Social Chair: Trey Crossley, Christina DeBenedetto
Community Service: Patrick Minassians, David Carrillo
Member Coordinator: Michael Chen, James Wang, Edward Ma
Publicity: Thomas Horn
Rube Goldberg Lead: Keshav Tadimeti, Jacob Swing, Kyle Wong
Club Liaisons: Simran Rajpal, Vincent Cheung, Sohni Thakkar, Linus Chen
<table>
<thead>
<tr>
<th>Graduate Student Advisor:</th>
<th>Dennis Wang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Advisor:</td>
<td>Bill Goodin</td>
</tr>
</tbody>
</table>
2 National and District Conferences

2.1 TBP National Conference

Project date: 10/11/18 and 10/13/18  
Number of participating members: 1  
Number of participating electees: 0  
Number of participating mentees: 0  
Hours spent planning (total): 0  
Hours spent participating (per person): 48  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Attending the TBP National Convention allows officers from each chapter to exchange ideas with each other and promote the mission of the organization. The representative from the UCLA (CA E) chapter was a part of the national image and marketing committee.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi  
2. Strengthening the Finances and Fundraising of the Association  
3. Advancing Collaborative Member Engagement  
4. Providing Relevant and Recognized Leadership and Professional Development  
5. Developing the Organizational Process of the Association  
6. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
No personal cost accrued due to generous reimbursement from TBP National Headquarters.

IV. SPECIAL PROBLEMS
E.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

Committee meetings were chaotic. Hard to communicate with some of the district directors on final objectives, but most of the time, objectives were completed on time.

V. OVERALL RESULTS
Great experience with the convention. The representative got to meet many officers from all over the country and listen to their stories of how they joined Tau Beta Pi. Excellent way to see the
wide range of projects each chapter is pursuing.

VI. EXHIBITS (if any)

n/a
2.2 D16 Fall Leadership Conference

Project date: 11/3/18
Number of participating members: 1
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 4
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Attending the D16 Fall Leadership Conference allows officers from each chapter in District 16 to exchange ideas with each other and promote the mission of the organization. The main goals of the meeting were chapter advertisement and membership retention.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi
2. Strengthening the Finances and Fundraising of the Association
3. Advancing Collaborative Member Engagement
4. Providing Relevant and Recognized Leadership and Professional Development
5. Developing the Organizational Process of the Association
6. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
$35 Uber Ride to the D16 conference.

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

n/a

V. OVERALL RESULTS
Neal and Sam (D16 district directors) were excellent leaders at the meeting and promoted a wide range of discussion on TBP membership. The representative felt like he learned tremendously from the experience and is hoping to improve the CA E chapter further.

VI. EXHIBITS (if any)
n/a
2.3 TBP D16 Spring District Conference

Project date: 3/9/19
Number of participating members: 2
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 6
In conjunction with another group (n/a if none): District 16 Chapters

I. PROJECT DESCRIPTION
Meet with other chapters in our district in order to review any national changes. In addition, we sought to share our knowledge with each other in order to improve each other’s chapters. We discussed the image of TBP on our campus, and ways to improve and broaden the scope and influence of TBP. We discussed new publicity measures, such as creating stickers we can hand out to students who come in for tutoring.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Chapter Improvement and building lasting external relationships.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member

IV. SPECIAL PROBLEMS

V. OVERALL RESULTS
The District Conference was very helpful. A lot of insight was gained into ways we can improve our recruiting methods and ways to better publicize TBP. Also, we were able to think of some additional programs and projects to potentially start. Lastly, it was nice connecting with other local chapters to develop a stronger community and potential partner with them on events.

VI. EXHIBITS (if any)
3 Educational and Professional Development

3.1 Internship Insider Night

Project date: 10/8/2018
Number of participating members: 4
Number of participating electees: 0
Number of participating mentees: 20
Hours spent planning (total): 8
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
An event where a panel of students with internship experience talk about how they got the internship as well as tips to getting one.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Giving back to the engineering community by providing guidance and insight to engineering students in the internship application process.

III. COST AND PERSONAL REQUIREMENTS
$179.90 for Papa John’s pizzas

IV. SPECIAL PROBLEMS
None in particular

V. OVERALL RESULTS
Out of 36 RSVPs, 20 showed up to the event. For the first 30 minutes, the panelists answered general questions from the attendees’ RSVP forms, such as the application process. The next hour was a Q&A session and the attendees voiced their questions actively. Overall participation was good, and we look forward to organizing this event in the following years.

VI. EXHIBITS (if any)
N/A
3.2 Resume Workshop

Project date: 10/11/2018
Number of participating members: 4
Number of participating electees: 0
Number of participating mentees: 8
Hours spent planning (total): 1
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
Drop-in hours at the TBP tutoring room for one-on-one resume feedback and career fair tips.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Providing the engineering community guidance on effective resumes and tips for getting internships or jobs.

III. COST AND PERSONAL REQUIREMENTS
$0 - No purchases necessary

IV. SPECIAL PROBLEMS
None in particular

V. OVERALL RESULTS
8 people showed for the event. We were busy the entire time, and they appreciated the feedback.

VI. EXHIBITS (if any)
N/A
3.3 UCLA Samueli Dean’s Student Showcase (DSS)

Project date: 10/30/18
Number of participating members: ~120
Number of participating electees: ~10
Number of participating mentees: 0
Hours spent planning (total): ~30 hrs
Hours spent participating (per person): ~2 hrs
In conjunction with another group (n/a if none): HKN, UPE, XE, WE@UCLA, CEED, UCLA External Affairs

I. PROJECT DESCRIPTION
The Dean’s Student Showcase is a recruiting event exclusively for engineering honor societies and dean diversity groups. Attending companies include Symantec, The Aerospace Corporation, Chevron, HRL Laboratories, Raytheon, SoCal Edison, ViaSat, and Northrop Grumman. The event was planned in conjunction with UCLA External Affairs.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
The event helps connect TBP members and the engineering student community to recruiters of reputable companies, helping them achieve their career goals.

III. COST AND PERSONAL REQUIREMENTS
All event costs (space booking, catering, etc) were handled by UCLA External Affairs. TBP covered the website fee and coordinated volunteers to help set-up and tear-down the event.

IV. SPECIAL PROBLEMS
Attendance compared to RSVP was approximately 50%. Complaints included the diversity of the companies attending, as not all majors had companies interested in them.

V. OVERALL RESULTS
Given the room size, the event was well attended. Two companies (Qualcomm and Arconic) were unable to make the event last minute. Companies like Northrop Grumman put on elaborate displays, featuring VR demos. Lines were short and efficient, unlike the UCLA Engineering and Technical Fair.

VI. EXHIBITS (if any)
3.4 Class Planning Workshop

Project date: 11/6/18
Number of participating members:
Number of participating electees: 8
Number of participating mentees: 32
Hours spent planning (total): 2
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): HKN

I. PROJECT DESCRIPTION
Officers would help undergraduates of various majors plan their schedules for upcoming quarters.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Providing guidance to the engineering community through academic advising.

III. COST AND PERSONAL REQUIREMENTS
$0

IV. SPECIAL PROBLEMS
The room was booked really late, which made publicizing the event hard. Because we partnered with HKN, most of the participants were ECE or CS majors.

V. OVERALL RESULTS
Overall, the event was a success, although most of the participants were ECE or CS majors. In the future, we will probably avoid hosting this event with a specialized group like HKN.
3.5 Alumni Tech Talk

Project date: 11/9/2018
Number of participating members: 5
Number of participating electees: 12
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Mark Tai, an alumni officer in class of 2018, came to give a talk about what he works on at his full-time job as a software engineer for Airbnb. He also talked about his advice on tech recruiting, handed his business cards out, talked about his experiences in TBP and gave advice to candidates/members on how to best use their time in university.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Advancing Collaborative Member Engagement
2. Providing Relevant and Recognized Leadership and Professional Development

III. COST AND PERSONAL REQUIREMENTS
No cost.

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a
n/a

V. OVERALL RESULTS
Candidates seemed engaged and interested to hear about an alumni and his experience. He also offered his contact information for people particularly inclined towards software engineering. Overall, a relatively casual environment where people had time to ask questions and get to know members of TBP better.

VI. EXHIBITS (if any)
n/a
3.6 Girls Networking Event

Project date: 11/13/2018
Number of participating members: 7
Number of participating electees:
Number of participating mentees:
Hours spent planning (total): 1
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
A meeting for girls from candidates to meet with girls in the officer board and get more familiar with how TBP is organized. Also provided one-on-one mentorship for candidates to ask about academics/careers/social questions.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Encourage girls participation within Tau Beta Pi. Provide girls with better support and advices about TBP and about their studies.

III. COST AND PERSONAL REQUIREMENTS
$0

IV. SPECIAL PROBLEMS
N/A

V. OVERALL RESULTS
Overall, the event was pretty successful. Candidates were able to form a closer bonding with officers, and found it helpful for their initiation process as well as studies at UCLA.
3.7 Patent Law Infosession

Project date: 11/14/2018
Number of participating members: 8
Number of participating electees: 1
Number of participating mentees: 0
Hours spent planning (total): 4
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
David Cole of Treyz Law Group, a specialized patent law firm, made a presentation about the patent process and the work of his firm, which is currently recruiting senior undergraduates. Tau Beta Pi members and others in the UCLA community engaged in a question-and-answer session with Mr. Cole about patent technicalities as well as the career opportunities available to patent agents and junior patent attorneys.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Patents are an important tool that assist engineers to control the use of their work for personal and social benefit. Reliable and relevant information about patents, as provided in this infosession, assists the development of Tau Beta Pi members as leaders in engineering who are empowered to take ownership and act responsibly with respect to their inventions. Additionally, this infosession assists the professional development of Tau Beta Pi members and other attendees from UCLA Engineering by alerting them to the presence of engineering-degree preferred job openings in a field where many are unaware these exist.

III. COST AND PERSONAL REQUIREMENTS
Pizza for attendees ($37.19), Several hours’ work for one officer in arranging and publicity

IV. SPECIAL PROBLEMS
Some RSVP attendees did not attend despite email reminder 1 hour before event. Consider email reminder 1 day in advance.

V. OVERALL RESULTS
Attendees were present and discussion on patent law was maintained from 6:00 to 7:20pm.
Attendees besides the organizer followed up with the presenter’s firm.
The presenter wishes to host more events with TBP CAE in future.
VI. EXHIBITS (if any)
See photographs by Johnny Lee. See below statement from presenter.

David Cole

Dear Thomas,

Thank you again for your help in setting up the infosession on Wednesday. It was a great experience to be able to explain what we do as patent prosecutors and to meet current undergraduates who seem genuinely interested in the field of patent law.

The event was beneficial on our end, as we have already received follow-up notes from a few attendees, and I hope that it was also interesting and informative to those who attended. Please extend my gratitude to the other officers of Tau Beta Pi, as well. We hope to get a chance to work with your organization again in the future.

Best regards,
-David

David Cole
Patent Agent
Treyz Law Group, P.C.
15279 N. Scottsdale Rd., Suite 250
Scottsdale, AZ 85254
Office: (480)525-6270
Cell: (951)233-3297
4 Community Service

4.1 Blood Drive

Project date: 4/29/19 – 5/10/19
Number of participating members: 0
Number of participating electees: 3
Number of participating mentees: 0
Hours spent planning (total): 4
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): UCLA Blood & Platelet Center

I. PROJECT DESCRIPTION

As a form of community service, members of TBP were given the opportunity to donate to the UCLA Blood & Platelet Center in an event spanning 2 weeks in order to supply blood to the patients of Ronald Reagan UCLA Medical Center.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

According to the Eligibility Code of Tau Beta Pi, “none can become worthy engineers without the welfare of associates, organizations, and the community at heart.” A blood drive allows TBP members to give back to the community, specifically patients at Ronald Reagan UCLA Medical Center.

III. COST AND PERSONAL REQUIREMENTS

No costs were associated with this event as all promotional materials were provided by the UCLA Blood and Platelet Center. Only members who fit the criteria designated by health codes were allowed to donate blood.

IV. SPECIAL PROBLEMS

N/A

V. OVERALL RESULTS

TBP members supplied patients at Ronald Reagan Hospital with blood in a time of high demand. As a result of posters, emails, and flyers, the turnout for this blood drive was higher than usual.

VI. EXHIBITS (if any)

None
4.2 Academic Outreach (Fall)

4.2.1 Math 32A Midterm Review 1

Project date: 10/15/2018  
Number of participating members: 2  
Number of participating electees: 2  
Number of participating mentees: 0  
Hours spent planning (total): 5  
Hours spent participating (per person): 2  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Hosting a review session to go over topics in Math 32A for an upcoming midterm

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community service. Helping out fellow peers in subjects related to the math and sciences

III. COST AND PERSONAL REQUIREMENTS
None

IV. SPECIAL PROBLEMS
None

V. OVERALL RESULTS
Turnout: ~ 30 people out of 65 people that signed up  
1 person replied with a feedback form and rated us a 9

VI. EXHIBITS (if any)
None
4.2.2 Math 32B Midterm Review 1

Project date: October 18, 2018
Number of participating members: 2
Number of participating electees: 2
Number of participating mentees: 0
Hours spent planning (total): 6
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
Turnout was lower than usual since one class had to be excluded from the review. Each midterm was scheduled in a different week so the earliest midterm had to be excluded to accommodate the other two.

V. OVERALL RESULTS
Thirty students attended the review and one person replied to the feedback form rating the session a 10/10

VI. EXHIBITS (if any)
4.2.3 Physics 1A Midterm Review 1

Project date: 11/4/18
Number of participating members: 3
Number of participating electees: 1
Number of participating mentees: 25
Hours spent planning (total): 5
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION

Hosted a review session to help students in Physics 1A to prepare for their upcoming midterm

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

Community service (education outreach)

III. COST AND PERSONAL REQUIREMENTS

Fulfilled 3 hours of community service credit for an initiating candidate (1 for material preparation, 2 for helping to host the review)

IV. SPECIAL PROBLEMS

We should consider requesting a larger room for next quarter’s review. There was only one Physics 1A lecture this quarter, and we got ~25 attendees. We filled the entire Covel West Coast Room.

V. OVERALL RESULTS

Turnout: ~25 people out 42 signups

Three positive reviews submitted through the Feedback Form

VI. EXHIBITS (if any)

N/A
I. PROJECT DESCRIPTION
Hosting a review session to go over topics in Math 32A for an upcoming midterm

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community service. Helping out fellow peers in subjects related to the math and sciences

III. COST AND PERSONAL REQUIREMENTS
None

IV. SPECIAL PROBLEMS
None

V. OVERALL RESULTS
Turnout: ~ 15 people out of 40 people that signed up

VI. EXHIBITS (if any)
None
4.2.5 Math 32B Midterm Review 2

Project date: November 16, 2018
Number of participating members: 2
Number of participating electees: 2
Number of participating mentees: 0
Hours spent planning (total): 6
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
Around 20 students attended the session

VI. EXHIBITS (if any)
4.2.6 Math 32A Finals Q&A

Project date: 12/03/2018  
Number of participating members: 3  
Number of participating electees: 2  
Number of participating mentees: 0  
Hours spent planning (total): 5  
Hours spent participating (per person): 2  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION  
Hosting a review session to go over topics in Math 32A for an upcoming Final

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI  
Community service. Helping out fellow peers in subjects related to the math and sciences

III. COST AND PERSONAL REQUIREMENTS  
None

IV. SPECIAL PROBLEMS  
None

V. OVERALL RESULTS  
Turnout: ~ 15 people out of 30 people that signed up

VI. EXHIBITS (if any)  
None
4.2.7 Physics 1A Finals Q&A

Project date: 12/05/2018
Number of participating members: 3
Number of participating electees: 3
Number of participating mentees: 0
Hours spent planning (total): 5
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Hosting a review session to go over topics in Physics 1A for an upcoming final

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community service. Helping out fellow peers in subjects related to the math and sciences

III. COST AND PERSONAL REQUIREMENTS
None

IV. SPECIAL PROBLEMS
None

V. OVERALL RESULTS
Turnout: ~ 15 people

VI. EXHIBITS (if any)
None
4.2.8 Math 32B Finals Q&A

Project date: 12/06/2018
Number of participating members: 2
Number of participating electees: 3
Number of participating mentees: 0
Hours spent planning (total): 5
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Hosting a review session to go over topics in Math 32B for an upcoming Final

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community service. Helping out fellow peers in subjects related to the math and sciences

III. COST AND PERSONAL REQUIREMENTS
None

IV. SPECIAL PROBLEMS
None

V. OVERALL RESULTS
Turnout: ~ 15 people

VI. EXHIBITS (if any)
None
4.3 Academic Outreach (Winter)

4.3.1 Physics 1C Midterm Review 1

Project date: 1/17/19
Number of participating members: 3
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 7
Hours spent participating (per person): 1:40
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION

We provided a review session for the first midterm in Physics 1C in Winter 2019.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

We provided support for those needing assistance in studying the necessary material.

III. COST AND PERSONAL REQUIREMENTS

N/A

IV. SPECIAL PROBLEMS

A fire alarm caused the review session to end 20 minutes early.

V. OVERALL RESULTS

The review session went well and students’ questions were answered.

VI. EXHIBITS (if any)
4.3.2 Math 32A Midterm Review 1

Date of Project: January 24, 2019
Number of persons who participated in this project: 2
Kevin Hsieh
Eric Yang
Number of participants who attended the session: 25
Hours spent on this project: Organizing: 8 Participating: 2
In conjunction with another group: UCLA Office of Residential Life

DESCRIPTION:

I. General Description

Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. Purpose & Relationship to Objectives of TBP

This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. Cost & Personnel Requirements

There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank to get past Math 32A problems.
IV. Special Problems
A room on the hill was unable to be booked due to some problems within the Office of Residential Life. The review session was instead hosted in the TBP room (Boelter 6266). Fortunately, there was just enough seats for the event, but having a room on the hill to host the review session may persuade more students to attend.

V. Overall Evaluation/Results
Overall, the review session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.
I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
The new professor structured his class in a way much different from the usual 32B professors. We split into two groups to accommodate the two groups of students. For future sessions we held two sessions.

V. OVERALL RESULTS
Around 40 students attended the session

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
This project was a review session before the first midterm for the second quarter of lower division physics at UCLA. Main topics covered were oscillations and waves; oscillation problems included setting up differential equations related to the given system and solving, while finding resonant and natural frequencies, as well as damping constants; waves include boundary conditions, waves in different media, resonance, and the Doppler effect. Professors teaching this quarter include Prof. Corbin and Prof. Gutperle.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi aims for excellence in engineering; by holding these reviews, we hope to give back to the community of engineers, especially those newer to UCLA who would be taking these introductory classes. We also hope to grow the name of TBP to one where individuals can trust in the knowledge of the members of TBP.

III. COST AND PERSONAL REQUIREMENTS
No funds were allocated for the project. Personal requirements included approximately 4 hours for creating problems, planning out scheduling, timing, creating solutions, reaching out to students and professors, and organizing all review material.

IV. SPECIAL PROBLEMS
Originally planned to be on the Hill (on-campus housing at UCLA), no rooms could be booked in the regularly-available locations, and thus no room was booked until 1 week before (often done at the beginning of the quarter). Rescheduling also occurred a week before the review, due to another review scheduled by a TA which overlapped; by separating these reviews, we increased turn-out, and helped more students.

V. OVERALL RESULTS
Reasonably well-received, the review went smoothly. The problems presented were covered, and class material was not due to the group having a review session directly before the scheduled one
from a TA of the class.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION

Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS

N/A

IV. SPECIAL PROBLEMS

Nobody participated so we weren’t able to present our material, but we did send our material to the 5 students who signed up.

V. OVERALL RESULTS

Sadly nobody came to our review session, but we thought we provided substantial review material to the 5 students who signed up for it.
4.3.6 Physics 1A Midterm Review 1

Date of Project: January 31, 2019
Number of persons who participated in this project: 3
Alex Lim, Vito Canuso, William Choi
Number of participants who attended the session: 25
Hours spent on this project: Organizing: 8 Participating: 2
In conjunction with another group: UCLA Office of Residential Life

I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank, the TBP test bank, and past AP Physics exam problems.

IV. SPECIAL PROBLEMS
A room on the hill was unable to be booked due to some problems contacting the Office of Residential Life. The review session was instead hosted in the TBP room (Boelter 6266). Fortunately, there was just enough seats for the event, but having a room on the hill to host the review session may persuade more students to attend.
V. OVERALL RESULTS
Overall, the review session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.
4.3.7 Physics 1C Midterm Review 2

Project date: 2/19/2019
Number of participating members: 4
Number of participating electees: 4
Number of participating mentees: 4
Hours spent planning (total): 6
Hours spent participating (per person): 2
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION
    This involved helping students study for the second midterm of their physics 1C course.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
    This provides a strong service to the community by allowing members to disseminate
    their knowledge about a subject to others in need of assistance.

III. COST AND PERSONAL REQUIREMENTS
    N/A

IV. SPECIAL PROBLEMS
    There were 2 other review sessions that day by the professor and TA’s of that physics 1C course.

V. OVERALL RESULTS

The review session took place and went well for those who attended.

VI. EXHIBITS (if any)
4.3.8 Physics 1A Midterm Review 2

I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank, the TBP test bank, and past AP Physics exam problems.

IV. SPECIAL PROBLEMS
We were assigned to a room on the second floor of Carnesale Commons. The room had plenty of chairs, but there were no tables. Attendees had to write on their laps.

V. OVERALL RESULTS
Overall, the review session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.
I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
There were no white boards or projectors in the room (Carnesale Commons), sproul front desk got one for us after we called them.

V. OVERALL RESULTS
Around 25 students attended the session

VI. EXHIBITS (if any)
4.3.10 Math 32A Midterm 2 Review

Project date: 2/22/2019
Number of participating members: 3
Number of participating electees: 0
Number of participating mentees: 15
Hours spent planning (total): 8
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): UCLA Office of Residential Life

I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank to get past Math 32A problems.

IV. SPECIAL PROBLEMS
A room on the hill was unable to be booked due to some problems within the Office of Residential Life. The review session was instead hosted in the TBP room (Boelter 6266). Fortunately, there was just
enough seats for the event, but having a room on the hill to host the review session may persuade more students to attend.

V. OVERALL RESULTS
Overall, the review session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
This project was a review session before the second midterm for the second quarter of lower division physics at UCLA. Main topics covered were electrostatics. Problems regarding electric field, capacitance, work due to electric fields, and forces associated with electric fields. Professors teaching this quarter include Prof. Corbin and Prof. Gutperle.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi aims for excellence in engineering; by holding these reviews, we hope to give back to the community of engineers, especially those newer to UCLA who would be taking these introductory classes. We also hope to grow the name of TBP to one where individuals can trust in the knowledge of the members of TBP.

III. COST AND PERSONAL REQUIREMENTS
No funds were allocated for the project. Personal requirements included approximately 4 hours for creating problems, planning out scheduling, timing, creating solutions, reaching out to students and professors, and organizing all review material.

IV. SPECIAL PROBLEMS
We were not able to access the projector at the De Neve Learning Auditorium, as it needed to be unlocked ahead of time. This will be taken care of when scheduling the winter review sessions.

V. OVERALL RESULTS
Provided difficult set of problems for students to practice. They had relevant examples and we answered their questions thoroughly. Overall a good review session.

VI. EXHIBITS (if any)
4.3.12 Math 32B Midterm Review 2 (Session 2)

Project date: February 25, 2019
Number of participating members: 2
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 6
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
Around 30 students attended the session

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSPV form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank and the TBP test bank.

IV. SPECIAL PROBLEMS
We were assigned to a room in Bradley Hall. The room had plenty of chairs, but there were no tables. Attendees had to write on their laps. There was no projector in the room, and the projector we brought did
not come with a power cord.

V. OVERALL RESULTS
Overall, the review session ran fairly smoothly; it started about 5 minutes late since we spent some time figuring out how to present without a projector, but after that, things started to settle down. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive. Some students had to leave early, so hopefully they did sign up for the review session beforehand so that they received the powerpoint slides and solutions.

VI. EXHIBITS (if any)
4.3.14 Physics 1B Final Q&A

Project date: 3/7/2019
Number of participating members: 1
Number of participating electees: 0
Number of participating mentees: 1
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
This project was a review Q&A before the final for the second quarter of lower division physics at UCLA. Students came prepared with questions for the tutors, and the tutors went through pre-prepared problems related to electrostatics, oscillations, and waves. Professors teaching this quarter include Prof. Corbin and Prof. Gutperle.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi aims for excellence in engineering; by holding these reviews, we hope to give back to the community of engineers, especially those newer to UCLA who would be taking these introductory classes. We also hope to grow the name of TBP to one where individuals can trust in the knowledge of the members of TBP.

III. COST AND PERSONAL REQUIREMENTS
No funds were allocated for the project. Personal requirements included approximately 2 hours for creating problems, planning out scheduling, timing, creating solutions, reaching out to students and professors, and organizing all review material.

IV. SPECIAL PROBLEMS
Due to a lack of publicity, turn-out for the event was low. Timing was rescheduled, which may have confused students, discouraging their attendance. In the future, better planning would be beneficial.

V. OVERALL RESULTS
Reasonably well-received, the review went smoothly. The questions asked by students were fully answered, and any remaining confusions by the students were cleared.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
The goal of this project was to help answer any questions that students had about calculus concepts that were expected to appear on the Math 31A final exam. The session had an office hours format, so no material was prepared beforehand for presentation.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The only requirements were being in the Tau Beta Pi room for the duration of the Q/A session and being able to answer the questions students had about the Math 31A final exam.

IV. SPECIAL PROBLEMS
Nobody came to ask questions; around 3 people did show up, but they were there to see if other students had questions in hopes of listening in on them. Since nobody had specific questions about the course material, there were no students who stayed for a significant amount of time.

V. OVERALL RESULTS
Nobody came with questions, but we stayed for the whole duration eager to help students who had them.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. PURPOSE & RELATIONSHIP TO OBJECTIVES OF TBP
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST & PERSONNEL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSPV form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank, the TBP test bank, and past AP Physics exam problems.

IV. SPECIAL PROBLEMS:
None
V. OVERALL EVALUATION/RESULTS
Overall, the Q&A session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.
I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/Rsvp form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank, the TBP test bank, and past AP Physics exam problems.

IV. SPECIAL PROBLEMS
N/A
V. OVERALL RESULTS
Overall, the Q&A session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank, the TBP test bank.

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a
V. OVERALL RESULTS
Overall, the Q&A session ran fairly smoothly. The students who attended were very appreciative of the help. We design these to be low-key, so the low attendance is not a concern.

VI. EXHIBITS (if any)
n/a
4.3.19 Physics 1C Final Q&A

Project date: 3/14/19
Number of participating members: 2
Number of participating electees: 2
Number of participating mentees: 0
Hours spent planning (total): 3
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This involves answering questions for students taking Physics 1C during the Winter 2019 quarter.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This involves helping others in need.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
N/A

V. OVERALL RESULTS
The session went well, but no students attended in need of assistance.

VI. EXHIBITS (if any)
4.4 Academic Outreach (Spring)

4.4.1 Math 32B Midterm Review 1

Project date: April 18, 2019  
Number of participating members: 2  
Number of participating electees: 0  
Number of participating mentees: 0  
Hours spent planning (total): 6  
Hours spent participating (per person): 2  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
The room was too small to fit everyone

V. OVERALL RESULTS
Around 40 students attended the session

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
This activity consisted of reviewing academic consists from Physics 1B courses at UCLA to allow students in those courses to adequately prepare for their midterms.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This activity consisted of assisting others and permitted personal growth through public speaking and verbal communication.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
N/A

V. OVERALL RESULTS
It was a great and effective review.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank to get past Math 32A problems.

IV. SPECIAL PROBLEMS
The review was scheduled to begin at 6:00pm. However, the room was booked until 6:15pm for a class, which resulted in the review starting 20 minutes later than what was schedule (including setup). This
meant that the attendees needed to wait outside the room before the review could start. The reasoning behind this delay was a miscommunication between TBP and the Office of Residential Life, and this will be sorted out next time.

V. OVERALL RESULTS
Overall, the review session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.

VI. EXHIBITS (if any)
4.4.4 Physics 1C Midterm Review 1

Project date: 4/28/19
Number of participating members: 0
Number of participating electees: 2
Number of participating mentees: 0
Number of participating UCLA students: 15
Hours spent planning (total): 4
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
A review session for undergraduates in the final quarter of lower division physics at UCLA, which focuses on electrodynamics, optics, and modern physics. Topics covered included circuits and phasors, Faraday’s Law of Induction, Biot-Savart’s Law, and similar topics. Mostly problems were covered at the level of difficulty of problems which could be found on their midterm.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi aims to help other engineers in education and schooling; by offering up our services to the community in the form of Academic Outreach, TBP at UCLA provides assistance to students striving for academic excellence.

III. COST AND PERSONAL REQUIREMENTS
Cost was solely in the form of time, taking two hours of meeting between coordinators, one hour individually, a half hour of setup, and two hours for the review itself, as well as any additional time spent answering questions afterwards.

IV. SPECIAL PROBLEMS
No particular problems occurred during the planning and execution of this event.

V. OVERALL RESULTS
Generally good results, feedback was generally positive, many questions asked and confusions about material were resolved.

VI. EXHIBITS (if any)
4.4.5 Physics 1A Midterm Review 1

Project date: 5/1/19
Number of participating members: 3
Number of participating electees: 2
Number of participating mentees: 20
Hours spent planning (total): 8
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Practice-problem based review session for students in Physics 1A classes. Concepts included kinematics, applications of Newton’s second law, and uniform circular motion.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
The review session was administered as a part of the Academic Outreach service branch. It embodied our chapter’s commitment to service and educational outreach. In addition, the review session presented an opportunity for personal growth through public speaking and interpersonal interactions.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
The room (Carnesale Malibu) was locked at the start of the review. We had to scramble to find someone to unlock the room. Ultimately, we got Sproul front desk to contact the Rooms and Services division of Carnesale Commons, and someone came to unlock the room 10~15 minutes after the planned start time of the review.

For the first time in 5 quarters, a student requested time to solve the problems prior to our presentation of the solution. In the past, we have found it most effective to simply jump straight to the solution. From now on, we will consider giving students time to solve the problems individually, on a case by case basis.

V. OVERALL RESULTS
Attendees appeared engaged and appreciative. Candidates contributed nicely. Review was successful.

VI. EXHIBITS (if any)
4.4.6 Physics 1B Midterm Review 2

Project date: 5/15/19
Number of participating members: 2
Number of participating electees: 2
Number of participating mentees: 20
Hours spent planning (total): 8
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This activity consisted of reviewing academic consists from Physics 1B courses at UCLA to allow students in those courses to adequately prepare for their midterms.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This activity consisted of assisting others and permitted personal growth through public speaking and verbal communication.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
N/A

V. OVERALL RESULTS
It was a great and effective review.

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
A review session covering topics and exam-like questions for Math 32B (Multivariable Calculus)

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event serves as community service for members. It also aims to strengthen the academic success of engineering undergraduates by reinforcing fundamental material in prerequisite courses for engineers.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS

V. OVERALL RESULTS
Around 35 students attended the session

VI. EXHIBITS (if any)
I. PROJECT DESCRIPTION
Our goal in Academic Outreach is to improve students' understanding of fundamental subjects applicable to engineering (math and science primarily) by hosting review sessions throughout the quarter. Knowledgeable Tau Beta Pi (TBP) Academic Outreach officers and candidates lead these review sessions. The general outline of the review session consists of an overview of the course material followed by relevant examples, where officers or candidates answer any questions students may have. Additionally, TBP officers and candidates answer any questions about course-related material participants of the review session may have.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed us to collaborate with the Office of Residential Life as well as with professors to ensure students in these courses understand the subject. Additionally, it served as a means of publicizing Tau Beta Pi, particularly the tutoring program and further review sessions.

III. COST AND PERSONAL REQUIREMENTS
There was no cost for this event. The bulk of the requirements is the time necessary both to plan the sessions and to prepare the material. Planning for each session entails booking a room, determining the scope of the session, creating an interest/RSVP form, and advertising the session: usually by emailing the professors to notify their students and directly informing the students themselves right before one of their classes. In addition, there is some time that the members meet prior to the session to allocate the material and work among themselves. Lastly, preparing the material means going over the session’s material, or an assigned portion thereof, and creating notes summarizing the most important equations and concepts, as well as finding good, relevant example problems. As a source of problems, we used the official UCLA test bank to get past Math 32A problems.

IV. SPECIAL PROBLEMS
The attendance was much lower than usual and expected. Additionally, the room (Boelter 4275) contained dried out Expo markers.
V. OVERALL RESULTS
Overall, the review session ran fairly smoothly. Students seemed to enjoy it and asked lots of questions, making it both interactive and productive.

VI. EXHIBITS (if any)
4.4.9 Physics 1C Midterm Review 2

Project date: 5/18/19
Number of participating members: 0
Number of participating electees: 2
Number of participating mentees: 2
Number of participating UCLA students: 21
Hours spent planning (total): 4-5
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
A review session for undergraduates in the final quarter of lower division physics at UCLA, which focuses on electrodynamics, optics, and modern physics. Topics covered included magnetic induction, indices of refraction, and lenses. Mostly problems were covered at the level of difficulty of problems which could be found on their midterm.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi aims to help other engineers in education and schooling; by offering up our services to the community in the form of Academic Outreach, TBP at UCLA provides assistance to students striving for academic excellence.

III. COST AND PERSONAL REQUIREMENTS
Cost was solely in the form of time, taking one hour of meeting between coordinators and mentees, one or two hour(s) individually depending on the individual, a half hour of setup, and two hours for the review itself, as well as any additional time spent answering questions afterwards.

IV. SPECIAL PROBLEMS
No particular problems occurred during the planning and execution of this event.

V. OVERALL RESULTS
Generally good results, feedback was generally positive, many questions asked and confusions about material were resolved. One mess-up during the review, but it was resolved, and students understood the question in the end.

VI. EXHIBITS (if any)
4.4.10 Physics 1A Midterm Review 2

Project date: May 21, 2019
Number of participating members: 3
Number of participating electees: 3
Number of participating mentees: 10
Hours spent planning (total): 8
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Practice-problem based review session for students in Physics 1A classes. Concepts included conservation laws, collisions, applications of Newton’s second law, and uniform circular motion.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
The review session was administered as a part of the Academic Outreach service branch. It embodied our chapter’s commitment to service and educational outreach. In addition, the review session presented an opportunity for personal growth through public speaking and interpersonal interactions.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
Fewer attendees than expected

V. OVERALL RESULTS
Attendees appeared engaged and appreciative. Candidates contributed nicely. Review was successful.

VI. EXHIBITS (if any)
4.5 EMCC (Fall)

4.5.1 Nora Sterry Elementary School Fall Festival

Project date: 10/26/18
Number of participating members: 4
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 4
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Assisted Nora Sterry in running their yearly fall festival. Member’s helped set-up the backdrop for the photobooth (picture in section VI), and also ran the haunted house set up in one of the school buildings.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Volunteering at local schools to give back to the community.

III. COST AND PERSONAL REQUIREMENTS
Had one member provide transportation for other fellow TBP participants

IV. SPECIAL PROBLEMS
None

V. OVERALL RESULTS
Successful fall festival with all of the kids enjoying the haunted house, coming through multiple times. Also get a personal thank you from the principal who invited us back next year to help run the Festival

VI. EXHIBITS (if any)
4.5.2 EMCC at Nora Sterry Elementary School (Ice Cream)

Project date: 11/2/18
Number of participating members: 3
Number of participating electees: 1
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children the basic principle of freezing point depression by making ice cream. Tried making ice cream in a bag of just ice and observed that contents didn’t get cold enough, but once salt was added to the ice everything was able to get cooler and become a little more solid.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $30

IV. SPECIAL PROBLEMS
We had issues with getting electees to come out as the time conflicted with a lot of their schedules. Unfortunately, the time of the event cannot be changed as it can only take place after school for Nora Sterry. Moving forward it looks like electees are making time in their schedule for this event.

V. OVERALL RESULTS
We had 15 children participate in the event. They all seemed to enjoy it and even had suggestions for the experiment the following week. They also enjoyed interacting with the TBP members there. The Electee who came also enjoyed the event and has decided to come out again next week.

VI. EXHIBITS (if any)
4.5.3 EMCC at Nora Sterry Elementary School (Non-Newtonian fluid)

Project date: 11/9/18
Number of participating members: 2
Number of participating electees: 4
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children the basic principle non-newtonian fluid by making Oobleck. We mixed corn starch and water to create something that flows like a liquid when moving through it slowly but acts as a solid in response to fast motion, such as striking it.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $20

IV. SPECIAL PROBLEMS
We had issues with having enough materials. We based the purchases for this event based on the number who showed up last week. Unfortunately, more than double the number of children came this week. By making the event exclusively for fourth and fifth graders like it was before, we hope to mitigate this issue.

V. OVERALL RESULTS
We had 30 children participate in the event. They all seemed to enjoy it and found it more exciting than making slime, another experiment we do. They also enjoyed interacting with the TBP representatives there. The Electees who came also enjoyed interacting with the kids and will hopefully come next week.

VI. EXHIBITS (if any)
4.5.4 EMCC at Nora Sterry Elementary School (Density)

Project date: 11/16/18  
Number of participating members: 3  
Number of participating electees: 3  
Number of participating mentees: 0  
Hours spent planning (total): 2  
Hours spent participating (per person): 3  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION  
Taught children the basic principle of density. For the experiment, we used oil, dish soap, corn syrup, water, honey, and isopropyl alcohol. We had the children form groups and guess what order they thought different liquids would appear when poured into a clear cup. Next, they poured each liquid into a cup in the order they guessed, observing how the layers adjusted their location based on density.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI  
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS  
Transportation was provided by a TBP member, and materials cost $30

IV. SPECIAL PROBLEMS  
We had issues with being able to clearly distinguish the boundary of some layers, such as between oil and isopropyl alcohol. Also, the food coloring used for the water was absorbed by the alcohol if the two mixed.

V. OVERALL RESULTS  
We had 24 children participate in the event. They all seemed to enjoy it and found it interesting how the layers would separate. Some of them tried adding the liquids in random orders to see them eventually separate. They also enjoyed interacting with the TBP representatives there. The Electees who came also enjoyed interacting with the kids and will hopefully come next week.

VI. EXHIBITS (if any)
4.5.5 EMCC at Nora Sterry Elementary School (Slime)

Project date: 11/30/18
Number of participating members: 3
Number of participating electees: 5
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children about polymers. Glue on its own is very liquidy, but once mixed with detergent becomes much more viscous, and doesn’t run. This is because the detergent causes the polymers in glue to bind together, forming very long chains that hold everything together.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $10

IV. SPECIAL PROBLEMS
We had issues with forming the slime at first. We tried using borax instead of detergent, but without mixing the borax in warm water, it does not properly dissolve. Switching to detergent yielded much better results

V. OVERALL RESULTS
We had 10 children participate in the event. Usually we open this event to fourth and fifth graders, but this week we only had fifth graders. The kids were thus able to make multiple batches of slime, refining their mixture to obtain the most favorable consistency. The kids also enjoyed interacting with the TBP representatives there. The Electees who came also enjoyed interacting with the kids and will hopefully come next week.

VI. EXHIBITS (if any)
4.6 EMCC (Winter)

4.6.1 EMCC at Nora Sterry Elementary School (Marshmallow Catapult)

Project date: 1/25/19
Number of participating members: 5
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children the basic principle of levers. By adjusting the length of the lever arms, the kids could see the increase in power and range for the marshmallows being shot. In addition the kids learned a little bit about potential energy. They saw that as the lever arm was bent further down, a larger amount of elastic energy was stored in the bent popsicle stick.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $20

IV. SPECIAL PROBLEMS
We had issues with kids simply eating the marshmallows instead of focusing on constructing their catapults.

V. OVERALL RESULTS
We had 15 children participate in the event. They all seemed to enjoy it and even ended up making multiple catapults. Some of the kids were ecstatic, exclaiming how they couldn’t wait to show their parents. A few of the kids even became quite accurate with launching the marshmallows at targets. They also enjoyed interacting with the TBP representatives there.

VI. EXHIBITS (if any)
4.6.2 EMCC at Nora Sterry Elementary School (Lemon Volcanoes)

Project date: 2/1/19
Number of participating members: 2
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children the basic principle acid base reactions. By mixing the juice from a lemon with baking soda and soap, a neutralization reaction would occur that produced gases that dispersed through a frothy layer that built up on the lemon. The larger the quantity of lemon juice used, the greater the reaction.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $15

IV. SPECIAL PROBLEMS
We had issues with kids spraying froth on each other.

V. OVERALL RESULTS
We had 20 kids participate. They were all eager to make their own volcanoes, even experimenting with different ratios of soap and baking soda to optimize the reaction. This experiment is a bit messy so in the future we’ll plan better when it comes to clean up. The kids also enjoyed interacting with the TBP representatives there.

VI. EXHIBITS (if any)
4.6.3 EMCC at Nora Sterry Elementary School (Bacteria)

Project date: 2/8/19
Number of participating members: 5
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Showed children the importance of cleanliness, and the ability of bacteria to grow anywhere. During one session we had the kids select different places to swab, including door handles, their phones, and bathroom seats. The following week, after incubating the petri dishes. The results were revealed.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $30

IV. SPECIAL PROBLEMS

V. OVERALL RESULTS
We had 35 kids participate. Some of them were surprised at what locations were the dirtiest, such as their phones. The kids seemed more eager to wash their hands. While this seemed to expose them to something they hadn’t seen before, hoping for permanent change still seems unlikely.

VI. EXHIBITS (if any)
4.6.4 EMCC at Nora Sterry Elementary School (Invisible Ink)

Project date: 2/15/19
Number of participating members: 3
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
The ability of chemicals was demonstrated in this experiment. Children were taught how different substances react to environmental conditions when they wrote notes that were only revealed when shining a light through it.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $20

IV. SPECIAL PROBLEMS

V. OVERALL RESULTS
We had 20 kids participate. Some of them were struggling to get their ink to work properly as they rushed and didn’t have a proper mixture. Eventually with some refinement everyone was writing messages safely encoded for only their friends’ eyes.

VI. EXHIBITS (if any)
4.6.5 EMCC at Nora Sterry Elementary School (paper airplanes)

Project date: 2/22/19
Number of participating members: 4
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Show the effects of wind and drag on an airplane. By constructing different designs, the kids say the value on having large wings, a well weighted craft, and using the wind to their advantage.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $10

IV. SPECIAL PROBLEMS

V. OVERALL RESULTS
It was tough to keep track of the kids participating as the event took place during after school outside play time. Those who competed had fun, with one kid already having experience making paper airplanes. In the end though the simplest design carried the furthest.

VI. EXHIBITS (if any)
4.7 EMCC (Spring)

4.7.1 EMCC at Nora Sterry Elementary School (Density)

Project date: 5/9/19  
Number of participating members: 1  
Number of participating electees: 3  
Number of participating mentees: 0  
Hours spent planning (total): 2  
Hours spent participating (per person): 3  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children the basic principle of density. For the experiment, we used oil, dish soap, corn syrup, water, honey, and isopropyl alcohol. We had the children form groups and guess what order they thought different liquids would appear when poured into a clear cup. Next, they poured each liquid into a cup in the order they guessed, observing how the layers adjusted their location based on density.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $15

IV. SPECIAL PROBLEMS
We had issues with being able to clearly distinguish the boundary of some layers, such as between oil and isopropyl alcohol. Also, the food coloring used for the water was absorbed by the alcohol if the two mixed.

V. OVERALL RESULTS
We had 17 children participate in the event. They all seemed to enjoy it and found it interesting how the layers would separate. Some of them tried adding the liquids in random orders to see them eventually separate. They also enjoyed interacting with the TBP representatives there. The electees who came also enjoyed interacting with the kids and will hopefully come next week.

VI. EXHIBITS (if any)
4.7.2 EMCC at Nora Sterry Elementary School (Paper Rockets)

Project date: 5/16/19
Number of participating members: 2
Number of participating electees: 3
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children the basic principle of air pressure. The basic materials used were two liter bottles, tape, and PVC pipe which were made into the rocket launchers. By stepping on the two liter bottle, the paper rocket could be launched from the other end of the pipe. By stepping on the bottle with varying amounts of force, the kids understood the idea that higher pressure over the same area can impart a greater force. The harder they stepped on the bottle, the further their rocket launched.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $10

IV. SPECIAL PROBLEMS
The only issue we had was with the durability of the launcher. Over time, the bottle would crack, making it harder to have all the air escape through the end of the PVC pipe.

V. OVERALL RESULTS
We had 20 children participate in the event. They all seemed to loved launching their rockets. The kids also came up with different designs for their rockets and competed to see who could launch theirs the farthest. The TBP members and electees interacted well with the kids, helping them improve their designs.

VI. EXHIBITS (if any)
4.7.3 EMCC at Nora Sterry Elementary School (Slime)

Project date: 5/23/19
Number of participating members: 2
Number of participating electees: 5
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Taught children about polymers. Glue on its own is very liquidy, but once mixed with detergent becomes much more viscous, and doesn’t run. This is because the detergent causes the polymers in glue to bind together, forming very long chains that hold everything together.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Community Service. Also helps develop interest in STEM for young impressionable children.

III. COST AND PERSONAL REQUIREMENTS
Transportation was provided by a TBP member, and materials cost $25

IV. SPECIAL PROBLEMS
We had issues with forming the slime at first. We tried using borax instead of detergent, but without mixing the borax in warm water, it does not properly dissolve. Switching to detergent yielded much better results

V. OVERALL RESULTS
We had 12 children participate in the event. Usually we open this event to fourth and fifth graders, but this week we only had fifth graders. The kids were thus able to make multiple batches of slime, refining their mixture to obtain the most favorable consistency. The kids also enjoyed interacting with the TBP representatives there, showing off the slime they made. The Electees who came also enjoyed interacting with the kids and will hopefully come next week.

VI. EXHIBITS (if any)
4.8 Tutoring

4.8.1 Fall Tutoring
Project date: 10/15/2018 - 11/30/2018
Number of participating members: ~5
Number of participating electees: ~25
Number of participating mentees: ~30
Hours spent planning (total): 10
Hours spent participating (per person): 7.78
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
Tutoring continues to remain Tau Beta Pi’s largest event. Tau Beta Pi features drop-in tutoring free of charge in lower division STEM classes as well as occasionally upper division subjects.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tutoring provides an important service to the UCLA community as it helps students who get behind in their classes or wish to learn more than what is taught in their classes traditionally.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
Tutee counts this quarter number 93 students (including repeats). This number indicates a slight recovery from Spring 2018 quarter which saw only 85 students (including repeats) but still falls short of usual numbers indicated by the Winter 2018 quarter which saw 132 students (including repeats). This may be an anomaly of a Winter quarter, however, so the Winter 2019 quarter will be monitored closely so as to determine whether numbers continue to increase.

Also, tutoring is usually one of the requirements most candidates finish without problems, but most candidates fell short of the 6/7 tutoring sessions required for the system to automatically check them off on the tutoring requirement. Most of these cases were due to valid personal reasons, but it is surprising to have so many of them.

V. OVERALL RESULTS
A total of 93 tutees (including repeats) were helped out by TBP tutors this quarter. Many indicated verbally that they were greatly helped by the experience.
VI. EXHIBITS (if any)
Tutoring is by far the avenue through which TBP is seen by the public. Tutoring exhibits both leadership and teaching skills that allow both candidates and officers to advance the understanding in subjects of not just community members, but also their own.
4.8.2 Fall Review Sheets

Project date: 10/15/2018 - 11/30/2018  
Number of participating members: 0  
Number of participating electees: 1  
Number of participating mentees: 1  
Hours spent planning (total): 40  
Hours spent participating (per person): 20  
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
The review sheets provide a short guide to a class that provides not just the key equations that are helpful in problem solving, but also some problems examples as well.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
As most of TBP tutoring is done via whiteboard and is thus destroyed after being used, review sheets provide important documentation of subject material beyond even the author’s time in TBP. The review sheets allow both tutees and tutors to quickly refresh their memory about the subject material.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
Although little subject material is factually incorrect, the Math 33A review sheet has an unhelpful presentation of material that does not really present insight beyond the book. This may require a complete overhaul of the review sheet material as the presentation of material goes beyond changing simply the equations. For now, the review sheet is available on the TBP website.

V. OVERALL RESULTS
Two review sheets were created, one for Math 33A (8 pages) and the other for Math 32B (25 pages).

VI. EXHIBITS (if any)
N/A
4.8.3 Winter Tutoring

Project date: 10/15/2018 - 11/30/2018
Number of participating members: ~5
Number of participating electees: ~25
Number of participating mentees: 0
Hours spent planning (total): 10
Hours spent participating (per person): 8
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
Tutoring continues to remain Tau Beta Pi’s largest event. Tau Beta Pi features drop-in tutoring free of charge in lower division STEM classes as well as occasionally upper division subjects.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tutoring provides an important service to the UCLA community as it helps students who get behind in their classes or wish to learn more than what is taught in their classes traditionally.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
We experienced a large drop in the number of officers available this quarter, which led to a related lack in the number of tutors available (even on the reduced 10AM - 4PM schedule). The current plan is to reduce the hours offered in Spring to 10AM - 4PM as well (even though it is ordinarily not done so), due to the lack of expected tutors from both officers and candidates.

V. OVERALL RESULTS
Tutoring was offered at all times from 10AM - 4PM. Several times during the quarter, however, the room was left empty with no tutors in it. Many tutors had their own time slots which made it difficult to miss and have another tutor somehow make up their time if a conflict arose. Some tutors had to switch time slots in the middle of the quarter for the rest of the quarter. A (small) few officers chose not to attend their tutoring hours several times despite being officers for over a year now, indicating a stronger incentive is required than simply a feeling of community service for the future.

VI. EXHIBITS (if any)
Tutoring is by far the avenue through which TBP is seen by the public. Tutoring exhibits both leadership and teaching skills that allow both candidates and officers to advance the understanding in subjects of not just community members, but also their own.
4.8.4 Spring Tutoring

Project date: 4/15/2019 - 5/31/2019
Number of participating members: ~5
Number of participating electees: ~15
Number of participating mentees: 31
Hours spent planning (total): 5
Hours spent participating (per person): 14
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
Tutoring continues to remain Tau Beta Pi’s largest event. Tau Beta Pi features drop-in tutoring free of charge in lower division STEM classes as well as occasionally upper division subjects.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tutoring provides an important service to the UCLA community as it helps students who get behind in their classes or wish to learn more than what is taught in their classes traditionally. Also, it gives TBP candidates and members to be seen as helpful individuals and leaders by their community.

III. COST AND PERSONAL REQUIREMENTS
N/A

IV. SPECIAL PROBLEMS
This quarter, the tutoring chairs attempted to ensure that the room was never left empty by putting higher concentrations of tutors in the room at every hour, and not increasing the hours to 10-5 as we usually do when we have candidates. This meant that there was only one known case when the room was empty, but obviously this solution did not completely fix the issue. A bit of an upset among officers was caused by keeping required hours at 2, but this did help with the pre-mentioned issue.

V. OVERALL RESULTS
Tutoring was offered at all times from 10AM - 4PM. A small amount of times during the quarter, however, the room was left empty with no tutors in it. Many tutors had their own time slots which made it difficult to miss and have another tutor somehow make up their time if a conflict arose. Some tutors had to switch time slots in the middle of the quarter for the rest of the quarter. Few officers and some candidates decided not to show up to their hours consistently, which shows a lack of incentive; the incentive for a true TBP member, however, should just be their commitment to the message of TBP.

VI. EXHIBITS (if any)
Tutoring is by far the avenue through which TBP is seen by the public. Tutoring exhibits both leadership and teaching skills that allow both candidates and officers to advance the understanding in subjects of not just community members, but also their own.
5 Chapter and Social Events

5.1 Fall Retreat 2018

Project date: 10.6.18  
Number of participating members: 20  
Number of participating electees: 0  
Number of participating mentees: 0  
Hours spent planning (total): 10  
Hours spent participating (per person): 48  
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION

TBP goes to San Diego for some fun team-building games and to also discuss how to have a productive year for the organization.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

Provide a supportive environment for TBP members to connect and bond with each other. This social also gave members an opportunity to voice what direction they think the organization should go in.

III. COST AND PERSONAL REQUIREMENTS

$20 per person in order to pay for airbnb and food.

IV. SPECIAL PROBLEMS

n/a

V. OVERALL RESULTS

A successful retreat!

VI. EXHIBITS (if any)
5.2 Koala T Social

Project date: 10/26/18
Number of participating members: 3
Number of participating electees: 15
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 2
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION

TBP Members and Candidates go to Koala T for some good food and even better conversations with one another!

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

Provide a supportive environment for TBP members to connect and bond with each other

III. COST AND PERSONAL REQUIREMENTS

Price of lunch

IV. SPECIAL PROBLEMS

n/a

V. OVERALL RESULTS

A successful social!

VI. EXHIBITS (if any)
5.3 Ultimate Frisbee

Project date: 11/4/18
Number of participating members: 2
Number of participating electees: 2
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 1
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION
Candidates/Members play frisbee together

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Provide a supportive environment for TBP members to connect and bond with each other

III. COST AND PERSONAL REQUIREMENTS
A frisbee

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
A successful social!

VI. EXHIBITS (if any)
5.4 Board Game Night

Project date: 11/6/18
Number of participating members: 2
Number of participating electees: 6
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 2
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION

TBP members and candidates play a variety of fun board games with each other.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI

Provide a supportive environment for TBP members to connect and bond with each other

III. COST AND PERSONAL REQUIREMENTS

n/a/

IV. SPECIAL PROBLEMS

n/a

V. OVERALL RESULTS

A successful social!

VI. EXHIBITS (if any)
5.5 Karaoke Night

Project date: 11/9/18
Number of participating members: 1
Number of participating electees: 6
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 1
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION
Sing Karaoke in the TBP room with friends

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Provide a supportive environment for TBP members to connect and bond with each other

III. COST AND PERSONAL REQUIREMENTS
TBP TV and my laptop

IV. SPECIAL PROBLEMS
Some negative nancy’s who refused to sing High School Musical with Trey

V. OVERALL RESULTS
A successful social!

VI. EXHIBITS (if any)
5.6 Netflix N Chill

Project date: 11/20/18
Number of participating members: 1
Number of participating electees: 4
Number of participating mentees: 0
Hours spent planning (total): 1
Hours spent participating (per person): 2
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION
Candidates/Members watched some good television in each other’s company.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Provide a supportive environment for TBP members to connect and bond with each other

III. COST AND PERSONAL REQUIREMENTS
TBP Tv and a netflix account.

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
A successful social!

VI. EXHIBITS (if any)
5.7 TBP Study Nights

Project date: 12/3/18 - 12/5/18
Number of participating members: 1
Number of participating electees: 10
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 3
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION
TBP members/candidates study together in hopes of passing finals.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Encouraging studying like the good students we all are

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
We all passed our classes!

VI. EXHIBITS (if any)
5.8 Winter Retreat 2019

Project date: 1.25.19  
Number of participating members: 20  
Number of participating electees: 0  
Number of participating mentees: 0  
Hours spent planning (total): 10  
Hours spent participating (per person): 48  
In conjunction with another group (n/a if none):

I. PROJECT DESCRIPTION

TBP goes to Big Bear for some fun team-building games and to also discuss how to have a productive year for the organization.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Provide a supportive environment for TBP members to connect and bond with each other. This social also gave members an opportunity to voice what direction they think the organization should go in.

III. COST AND PERSONAL REQUIREMENTS
$20 per person in order to pay for airbnb and food.

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS

A successful retreat!

VI. EXHIBITS (if any)
5.9 Netflix N Chill

Project date: 4/7/19
Number of participating members: 14
Number of participating electees: 0
Number of participating mentees: 12
Hours spent planning (total): 1
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
The candidates and officers gathered in our tutoring room to hangout and watch some episodes of The Office. Candidates were encouraged to bring their own snacks.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This social allowed for the candidates to get to know each other in a more casual setting, while enjoying a great show.

III. COST AND PERSONAL REQUIREMENTS
No cost

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
The results were great. We had a great turnout and all of the students enjoyed the movie night. Everyone said that it was a social that they would love to have again next quarter.

VI. EXHIBITS (if any)
n/a
5.10 Hammer Museum

Project date: 4/17/19
Number of participating members: 8
Number of participating electees: 2
Number of participating mentees: 5
Hours spent planning (total): 1
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Candidates and officers met up at the Hammer Museum in Westwood to enjoy the beautiful artwork and art installations on display there. The students conversed about the art, its relevance and meaning, and discussed their favorites.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
While TBP is an engineering society, it is important for the students to gain knowledge in all aspects of life. By going to the Hammer Museum and learning about art, the students will become more well rounded and culturally aware.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
Some students didn’t come because they said it was too far to walk (15-20 min walk). Next time we can potentially get people to drive or a shuttle.

V. OVERALL RESULTS
The overall result was great. The students enjoyed the trip and they gained a lot of knowledge about art from it.

VI. EXHIBITS (if any)
n/a
5.11 Ultimate Frisbee Game

Project date: 4/26/19
Number of participating members: 9
Number of participating electees: 2
Number of participating mentees: 4
Hours spent planning (total): 2 hours
Hours spent participating (per person): 2.5 hours
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
The students went to the IM fields at UCLA to participate in a game of ultimate frisbee. There were two teams, and one of the officers acted as the ref. The game went on for about 2 hours with a water break after the first hour.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event allowed for personal relationships to develop within the candidates, and provided a fun exercise for all of the members to participate in.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
Booking the IM field, having space on the IM field

V. OVERALL RESULTS
Everyone enjoyed the event, and people were glad we were outside playing on the IM field, as it was a beautiful day. Candidates loved the event and said that they would like to do more athletic events such as this in the future.

VI. EXHIBITS (if any)
n/a
5.12 9th Annual Rube Goldberg Competition

Project date: April 28th, 2019
Number of participating members: 5
Number of participating electees: 0
Number of participating mentees: 80
Hours spent planning (total): 1-2 hours/week
Hours spent participating (per person): 8
In conjunction with another group (n/a if none): N/A

DESCRIPTION:
I. General Description:
The Rube Goldberg competition is organized by Tau Beta Pi California Epsilon. Student teams of 4-8 have three hours to design, build, and test the Rube Goldberg machine (an over-engineered machine to complete a simple task). Tau Beta Pi provides the venue and all the materials to all the teams. Each machine is judged based on creativity, complexity, task completion, and theme integration. The 9th Rube Goldberg Competition took place on April 28th, 2019 in the Ackerman Grand Ballroom in UCLA. The final task this year was “UCLA Centennial”.

The planning committees were established in December 2018 so that the majority of logistics were planned during winter quarter while the purchase of materials and participants were finalized in spring quarter. All the committee members and volunteers for this competition are TBP members.

Each team has two runs, judged by two pairs of different judges. We took the higher score for each team.

The first-place team gets $200 cash reward, second-place team gets $100, third-place team gets $50, and the most creative team gets $50. We charge a registration fee of $30 to each participating team.

![Figure 1: Rube Goldberg Competition Logo]
II. **Purpose & Relationship to Objectives of TBP:**
The competition provides a chance for all the engineering and non-engineering students to get together to create and design. It offers interdisciplinary collaboration among engineers from various fields and backgrounds and hands-on engineering experience. It is also a great opportunity to spark creativity and imagination and publicize Tau Beta Pi. It also provides a chance for TBP officers to practice leadership skills, project management skills, fundraising and corporate outreach skills, and organization skills.

III. **Organization & Administration:** (in conjunction with another group? No)
The planning committees were established in December 2018 so that the majority of logistics were planned during winter quarter while the purchase of materials and participants were finalized in spring quarter. The Rube Goldberg committee is divided into four sub-committees: Logistics, Material, Judging, and Publicity. The overall Rube Goldberg committee is headed by Keshav Tadimeti. The breakdown of sub-committee tasks is shown below:

- **Logistics**
  - Booking the room
  - Coming up with theme
  - Special task/secret material
  - Rules / Candidate packet / Certificate
  - Presentation for volunteers for the event

- **Materials**
  - Sort out materials from inventory (Communal tools/materials)
  - Make a shopping list & order/buy materials
  - Come up with new materials
  - Prepare Name tags for the teams

- **Judging**
  - Contact professors (judges) and invite judges to the event
  - Design judging rubric
  - Make judging score sheet

- **Publicity**
  - Design logo/T shirt/flyers
  - Chalking / advertisement
  - Make Facebook event
  - Send out registration form
  - Taking photographs during the event

We also have various sponsors that provides funding for this competition: UCLA Engineering Alumni Association, and Northrop Grumman.
IV. **Cost & Personnel Requirements:**

The budget break down for the event is provided below.

<table>
<thead>
<tr>
<th>Budget Line Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per-team materials</td>
<td>$383.24</td>
</tr>
<tr>
<td>Communal materials</td>
<td>$105.49</td>
</tr>
<tr>
<td>Venue costs</td>
<td>$445</td>
</tr>
<tr>
<td>Prize money cost</td>
<td>$400</td>
</tr>
<tr>
<td><strong>Total budget</strong></td>
<td><strong>$1,333.73</strong></td>
</tr>
</tbody>
</table>

As mentioned before, we have several funding sources and sponsors that helped us over the cost. The breakdown of money came is shown below:

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Amount</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Alumni Association</td>
<td>$200</td>
<td>Prize money</td>
</tr>
<tr>
<td>Dean’s funding</td>
<td>$445</td>
<td>Venue costs</td>
</tr>
<tr>
<td>Previous sponsorships (Northrop Grumman)</td>
<td>$524.73</td>
<td>Per-team materials, Communal materials, Prize money</td>
</tr>
<tr>
<td>Registration Fee</td>
<td>$164</td>
<td>Prize money</td>
</tr>
</tbody>
</table>

All the members in the organizing committee are TBP members and officers. All the participants must be current UCLA students. We also have UCLA faculties, TBP alumni, and the current TBP officer corp join our event as judges. The judges list for this year is shown below:

**Faculty:** Brent Corbin, William Goodin

**Alumni:** Armen Azizian

**Officers:** Keshav Tadimeti

V. **Special Problems:**

We have encountered problems in publicizing the event. We expected to have 15 teams to participate in this event, based on the increased publicity and lowered cost of registration compared to last year. But at the end we only have 8 teams signed up for this event. However, the shrink in size of participating teams actually provided more spaces and more materials for each participating team.

Another problem was with the publicity reach of our advertising. We resorted to an online-only advertising, aiming to get our event publicized in engineering student group email newsletters, as well as via Facebook. Lacking a Facebook advertising budget, however, we were not able to get as much publicity from faculty and student groups as we were if we were to pursue an in-person, chalkboard publicity approach.
VI. Overall Evaluation/Results (Be Specific):
Overall, we did pretty well for the competition. This year we broadened our material selections so that each participating team could have more materials. We also used a large, bright venue, making it a more lively, entertaining, and endearing event to attend. We also allowed the usage of water, which from the feedback of participants is a great idea.

We also provided more structural materials, such as PVC, offered better electronics equipment, and provided an interpretable theme for competitors (this year’s being “UCLA’s Centennial”) that elicited more creative, more complex, and more awe-inspiring machinery and construction from the teams.

We definitely have a lot to improve for next year, including but not limited to: improve the publicizing process to get more participation teams, place material orders earlier, and reaching out to companies and student organizations earlier.

Here are some photos from the event:

![Figure 3: Photo of our judges and competitors](image-url)
Figure 4: Photo of competitors building their machines

Figure 5: Competitors making use of the variety of materials we provided them
5.13 KBBQ

Project date: 5/2/19
Number of participating members: 6
Number of participating electees: 1
Number of participating mentees: 2
Hours spent planning (total): 1
Hours spent participating (per person): 1.5
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
The students headed to a korean barbeque restaurant in Westwood to grab dinner. During the
dinner, candidates talked with the officer and shared some comments, questions, and concerns
about their experience at UCLA and TBP in general. It was great to get feedback from the
candidates and the candidates were able to meet some officers and members of TBP that they
might not have otherwise.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
In order for TBP to run smoothly, the candidates and the members need to be in contact and get
to know each other well. This is mainly accomplished through the socials, where casual settings
allow members and candidates to talk with each other and get to know each other well.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
Attendance was not as high as it usually is because some students did not want to have to pay for dinner
and decided to eat their meals at dining halls instead.

V. OVERALL RESULTS
Overall, the food was great and the conversations were informative. The students recommended
doing another food social soon, which was the brunch social. This was a great way for the officer
and the candidates to learn more about each other.

VI. EXHIBITS (if any)
n/a
5.14 Board Game Night

Project date: 5/12/19
Number of participating members: 22
Number of participating electees: 6
Number of participating mentees: 17
Hours spent planning (total): 1
Hours spent participating (per person): 1.5
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
During Board Game Night, all the candidates and members played board games at the TBP room. Some of these board games included Jenga, Battleship, Monopoly, and Guess Who.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
TBP fosters strong relationships and networking opportunities. Through a casual setting of board game night, candidates were able to connect to each other and meet each other. Additionally, they were able to discuss their academic interests together.

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
The overall results was good. The only thing that could be changed was that there weren’t that many games. We will invest in getting more games for next time.

VI. EXHIBITS (if any)
n/a
5.15 Brunch Social

Project date: 5/19/19
Number of participating members: 6
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This social was a brunch at Barney’s Beanery at 11am. Five candidates and one officer attended. During the brunch, the members chatted about future goals, research they were participating in, and asked questions to the officer about UCLA Engineering and opportunities within Tau Beta Pi.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi fosters a community of like-minded engineers who seek opportunities to expand their knowledge and involvement within UCLA and the engineering program. By sitting down and talking with an officer and other members, candidates were able to learn about more opportunities as well as clear up confusion and misconceptions about TBP. The students were also able to bond with the officer and other members, in order to create a more cohesive, unified TBP.

III. COST AND PERSONAL REQUIREMENTS
Attendance and purchasing brunch

IV. SPECIAL PROBLEMS
There was a decline in attendance at this event, as many could not make it and were busy. Additionally, not enough information was given out ahead of time, and in the future this will be corrected.

V. OVERALL RESULTS
The overall results were very positive. The candidates and officer had a good time, the food was great, and a lot of knowledge was spread. This was a very relaxed setting for everyone to get to know each other and grow closer.

VI. EXHIBITS (if any)
n/a
5.16 TBP/HKN/UPE Networking Night

Project date: 5/28/19
Number of participating members: 0
Number of participating electees: 2
Number of participating mentees: 8
Hours spent planning (total): 2
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): HKN, UPE

I. PROJECT DESCRIPTION
An event for candidates from honors organizations to meet each other and form connections.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Tau Beta Pi encourages professional networking and community connections among engineers of multiple disciplines.

III. COST AND PERSONAL REQUIREMENTS
Costs included $40 for food, and personal requirements included setup and time to contact, communicate, and plan between organizations.

IV. SPECIAL PROBLEMS
We were unable to acquire the desired space for the event, which is mostly due to a lack of time for planning. The event was rushed (less than 2 weeks to plan), and made more for the benefit of candidates. Future similar events will be planned better.

V. OVERALL RESULTS
The overall results were generally positive, with candidates from all organizations meeting other members of different organizations. This hopefully contributed to their ability to network professionally. In the future, a greater effort towards planning will yield better results.

VI. EXHIBITS (if any)
5.17 Fall

5.17.1 Fall Candidate Orientation

Project date: 10/2/18 and 10/3/18
Number of participating members: 15
Number of participating electees: 80
Number of participating mentees: 0
Hours spent planning (total): 4
Hours spent participating (per person): 4
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Orientation introduces eligible students to the purpose, benefits, duties, and initiation process of Tau Beta Pi. This event is also an opportunity for members to interact with officers so that we can gauge the character of potential candidates.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Advancing Collaborative Member Engagement
2. Cultivates a community of dedicated high achievers

III. COST AND PERSONAL REQUIREMENTS
Pizza catering cost $120 in total.

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

Initiation requirements were increased/more stringent from last year resulting in a drop in the initial number of candidates. We may revert to the previous level of requirements.

V. OVERALL RESULTS
Electee yield was consistent with historical expectation. Orientation slides were re-designed to be more appealing. Candidates who were interested in the benefits showed a great amount of commitment to joining the organization.

VI. EXHIBITS (if any)
n/a
5.17.2 Candidate Sorting

Project date: 10/18/2018
Number of participating members: 6
Number of participating electees: 6
Number of participating mentees: 17
Hours spent planning (total): 2
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): N/A

I. PROJECT DESCRIPTION
This involved a series of group bonding activities to allow the candidates to familiarize with each other and practice leadership and teamwork.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Promotes collaboration and friendship.

III. COST AND PERSONAL REQUIREMENTS
$0

IV. SPECIAL PROBLEMS
No problems!

V. OVERALL RESULTS
Candidates and members had a strong and rewarding learning experience.

VI. EXHIBITS (if any)
5.17.3 Bent Polish

Project date: 10/29/18-11/1/18
Number of participating members: 10
Number of participating electees: 10
Number of participating mentees: 28
Hours spent planning (total): 3
Hours spent participating (per person): approx. 45 min
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
   This involves polishing the Tau Beta Pi bent in front of Boelter Hall.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
   The cleaner bent allows Tau Beta Pi to more clearly present its respectability. In addition, the collaboration between members and candidates further promoted group collaboration and friendship.

III. COST AND PERSONAL REQUIREMENTS
      N/A

IV. SPECIAL PROBLEMS
      N/A

V. OVERALL RESULTS
   The bent has been thoroughly polished and is nice and shiny. The members and candidates had fun working together and developed stronger relationships with each other.

VI. EXHIBITS (if any)
      N/A
5.17.4 Meet and Greet

Project date: 11/8/18
Number of participating members: 15
Number of participating electees: 25
Number of participating mentees:
Hours spent planning (total): 2
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Q&A panel with TBP faculty. With food.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Foster communication with academia and advance research opportunities.

III. COST AND PERSONAL REQUIREMENTS
Food cost.

IV. SPECIAL PROBLEMS
Low faculty attendance.

V. OVERALL RESULTS
Went quite well. Fun stories.

VI. EXHIBITS (if any)
5.17.5 Candidate Quiz

Project date: 11/15/18
Number of participating members: 0 (approximate)
Number of participating electees: 5 (approximate)
Number of participating mentees: 30 (approximate)
Hours spent planning (total): 10
Hours spent participating (per person): 1.5
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
   This consisted of candidates being administered a quiz regarding Tau Beta Pi as an
   organization.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
   Candidates were encouraged to learn about Tau Beta Pi, allowing them to be aware of the
   organization and its goals that they are encouraged to pursue.

III. COST AND PERSONAL REQUIREMENTS
   N/A

IV. SPECIAL PROBLEMS
   N/A

V. OVERALL RESULTS
   Candidates successfully completed their quizzes.

VI. EXHIBITS (if any)
   Refer to completed quizzes.
5.17.6 Fall Officer Information Session

Project date: 11/28/18
Number of participating members: 10
Number of participating electees: 20
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 3
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
The Fall Officer Information Session is an opportunity for candidates and members to become an officer at the CA E chapter. The president goes over the responsibility of each position, and members have the chance to talk to incumbent officers about their experience.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi
2. Advancing Collaborative Member Engagement
3. Developing the Organizational Process of the Association
4. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
$15 in food and drinks for the attendees.

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

n/a

V. OVERALL RESULTS
Great turnout from the candidate pool. In the future, a room with a projector should be booked in advanced along with an official panel to organize the discussion between officers and candidates.

VI. EXHIBITS (if any)
n/a
5.17.7 Fall Initiation

Project date: 12/4/18
Number of participating members: 15
Number of participating electees: 30
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event is the official TBP initiation ceremony, where eligible candidates who have completed our requirements are sworn in as official members of the CA-Epsilon chapter of Tau Beta Pi. Afterwards, officers for the winter-spring term are elected by the candidates followed by a celebratory dinner.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
   1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi
   2. Strengthening the Finances and Fundraising of the Association
   3. Advancing Collaborative Member Engagement
   4. Providing Relevant and Recognized Leadership and Professional Development
   5. Developing the Organizational Process of the Association
   6. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
The cost of food catering was around $250. The cost of booking the room was $50. Personal requirements involved setting up the room, deciding on roles, and practicing the initiation roles to make sure the event goes smoothly.

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

n/a

V. OVERALL RESULTS
Candidates were pleased with the initiation ceremony and got the full initiation experience (Dim room, eerie atmosphere, etc.). Initiation was an excellent bonding experience for both officers and members.
VI. EXHIBITS (if any)
n/a
5.17.8 Fall Officer Elections

Project date: 12/4/18
Number of participating members: 15
Number of participating electees: 15
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 2
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event is for the election of the next Tau Beta Pi Officer Board for the 18-19 Winter-Spring term.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi
2. Strengthening the Finances and Fundraising of the Association
3. Advancing Collaborative Member Engagement
4. Providing Relevant and Recognized Leadership and Professional Development
5. Developing the Organizational Process of the Association
6. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
n/a

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

n/a

V. OVERALL RESULTS
Good amount of interest yielded a large officer board (54 Officers). There were a decreased amount of initiates this cycle due to increased initiation requirements. In the future, our officer board will cut back on the number of requirements to make it more realistic and enjoyable for our future candidates.

VI. EXHIBITS (if any)
n/a
5.18 Spring

5.18.1 Fall Candidate Orientation

Project date: 4/10/19 and 4/11/19
Number of participating members: 15
Number of participating electees: 80
Number of participating mentees: 0
Hours spent planning (total): 4
Hours spent participating (per person): 4
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Orientation introduces eligible students to the purpose, benefits, duties, and initiation process of Tau Beta Pi. This event is also an opportunity for members to interact with officers so that we can gauge the character of potential candidates.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Advancing Collaborative Member Engagement
2. Cultivates a community of dedicated high achievers

III. COST AND PERSONAL REQUIREMENTS
Pizza catering cost $180 in total.

IV. SPECIAL PROBLEMS
Winter quarter grades were slow to process, so OASA did not give us the list of eligible candidates until Monday of week 2. We were forced to postpone orientation from week 1 to week 2. Consequently, we had to reschedule the second orientation session to Royce 166. The room was too small to accommodate 30-40 people, and projector use costs $100/day. Due to the inclusion of winter quarter grades, freshmen were able to meet the 28 unit requirement. We decided to allow them to initiate. In the future, we should request the list of eligible candidates prior to spring break if we want to prevent freshmen from becoming eligible. If we wait until after spring break, we should plan for orientation on week 2 to avoid the inconvenience of rescheduling.

V. OVERALL RESULTS
Electee yield was higher than expected due to the influx of eligible freshmen. Candidates who were interested in the benefits showed a great amount of commitment to joining the organization.
VI. EXHIBITS (if any)
n/a
5.18.2 Officer Meet and Greet

Project date: April 18th, 2019
Number of participating members: 17
Number of participating electees: 5
Number of participating mentees: 12
Hours spent planning (total): 5
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event aims to connect Tau Beta Pi candidates to their officer board by arranging a for initiates to come and meet a member of the board. Members are free to speak with the board (composed of upperclassmen) about academics and coursework, or about the initiation process.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event is related to Tau Beta Pi’s mission to “cultivate a community of dedicated high achievers”. By making the officer board approachable for initiates, the Officer Meet and Greet strives to create a supportive community through the initiation process.

III. COST AND PERSONAL REQUIREMENTS
No cost was needed. Personal requirements of a 1-hour time commitment were imposed on the board and initiates.

IV. SPECIAL PROBLEMS
Booking the Tau Beta Pi room for the day meant that the Officer Meet and Greet was sometimes coincident with tutoring. As such, the event was hectic at times. Of note was that since the event spanned the entire day, there were often more initiates that officers available to accommodate them.

V. OVERALL RESULTS
The Officer Meet and Greet is a requirement for initiation. The candidates who did meet an officer benefited, but those who didn’t because it was too hectic did not find as much value in the event.

VI. EXHIBITS (if any)
n/a
5.18.3 Scavenger Hunt

Project date: May 3, 2019
Number of participating members: 12
Number of participating electees: 4
Number of participating mentees: 8
Hours spent planning (total): 10
Hours spent participating (per person): 5
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event aims to connect Tau Beta Pi candidates to each other by having them participate in
the team-building exercise of a scavenger hunt.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event is related to Tau Beta Pi’s mission to “cultivate a community of dedicated high
achievers”. By having a fun event, initiates are supposed to get closer to each other.

III. COST AND PERSONAL REQUIREMENTS
No cost was needed. Personal requirements of a 2-hour time commitment were imposed on the
board and initiates.

IV. SPECIAL PROBLEMS
The scavenger hunt could have used more officer board members to plan and carry out, but was otherwise
a successful event.

V. OVERALL RESULTS
The scavenger hunt is a requirement for initiation. The candidates who participated all had fun
and thought it was a good event.

VI. EXHIBITS (if any)
n/a
5.18.4 Bent Polish

Project date: May 7-10, 2019
Number of participating members: 20
Number of participating electees: 5
Number of participating mentees: 15
Hours spent planning (total): 12
Hours spent participating (per person): 4
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event aims to connect Tau Beta Pi candidates to each other by having them participate in the team-building exercise of a Bent Polish.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event is related to Tau Beta Pi’s mission to “cultivate a community of dedicated high achievers”. By having a fun event, initiates are supposed to get closer to each other.

III. COST AND PERSONAL REQUIREMENTS
No cost was needed. Personal requirements of a 1-hour time commitment were imposed on the board and initiates.

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
The Bent Polish is a requirement for initiation. The candidates who participated all had fun and thought it was a good event.

VI. EXHIBITS (if any)
n/a
5.18.5 Candidate Quiz

Project date: May 15-16th, 2019
Number of participating members: 17
Number of participating electees: 5
Number of participating mentees: 12
Hours spent planning (total): 5
Hours spent participating (per person): 1
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event aims to connect Tau Beta Pi candidates to their officer board by arranging for initiates to come and take the traditional candidate quiz as well as review their candidacy requirements. By passing the quiz and catching up with their candidates, candidates can keep track of their progress and learn about Tau Beta Pi’s rich history.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event is related to Tau Beta Pi’s mission to “cultivate a community of dedicated high achievers”. By making the officer board approachable for initiates, the Candidate Quiz strives to create a supportive community through the initiation process.

III. COST AND PERSONAL REQUIREMENTS
No cost was needed. Personal requirements of a 1-hour time commitment were imposed on the board and initiates.

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
The Candidate Quiz is a requirement for initiation. The event went smoothly and everybody thought it was a good event.

VI. EXHIBITS (if any)
n/a
5.18.6 Research Networking Night

Project date: May 16, 2019
Number of participating members: 20
Number of participating electees: 5
Number of participating mentees: 15
Hours spent planning (total): 12
Hours spent participating (per person): 4
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
This event aims to give Tau Beta Pi candidates insights into research by having professors present about the value of their work.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
This event is related to Tau Beta Pi’s mission to “cultivate a community of dedicated high achievers”. By having a research networking night, initiates are introduced to a new avenue whereby they can be high achievers.

III. COST AND PERSONAL REQUIREMENTS
No cost was needed. Personal requirements of a 1-hour time commitment were imposed on the board and initiates.

IV. SPECIAL PROBLEMS
n/a

V. OVERALL RESULTS
The Research Networking Night is a requirement for initiation. The candidates who participated all had fun and thought it was a good event. The progress of each initiate was recorded and reviewed with the initiate.

VI. EXHIBITS (if any)
n/a
6 Meetings and Additional Resources

6.1 Fall Officer Meetings

Project date: 10/10/18 - 11/28/18  
Number of participating members: 20 (Average)  
Number of participating electees: 0  
Number of participating mentees: 0  
Hours spent planning (total): 0  
Hours spent participating (per person): 1 (Per Meeting)  
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Officer meetings allow for dissemination of tasks, updates, and news among all officers.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi
2. Strengthening the Finances and Fundraising of the Association
3. Advancing Collaborative Member Engagement
4. Providing Relevant and Recognized Leadership and Professional Development
5. Developing the Organizational Process of the Association
6. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
$70 in miscellaneous snacks for officers (Total)

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

n/a

V. OVERALL RESULTS
Fall Officer Meetings were very concise and largely covered events related to candidate initiation and corporate events such as Dean’s Student Showcase. General attendance was consistent.

VI. EXHIBITS (if any)
n/a
6.2 Winter Officer Meetings

Project date: 1/7/19 - 3/15/19
Number of participating members: 20 (Average)
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 1 (Per Meeting)
In conjunction with another group (n/a if none): n/a

I. PROJECT DESCRIPTION
Officer meetings allow for dissemination of tasks, updates, and news among all officers.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
1. Enhancing the Image, Visibility, and Branding of Tau Beta Pi
2. Strengthening the Finances and Fundraising of the Association
3. Advancing Collaborative Member Engagement
4. Providing Relevant and Recognized Leadership and Professional Development
5. Developing the Organizational Process of the Association
6. Improving Chapter Support and Operations

III. COST AND PERSONAL REQUIREMENTS
$50 in miscellaneous snacks for officers (Total)

IV. SPECIAL PROBLEMS
e.g. scheduling, redundancy, accommodations such as room size and booking, decline in attendance, printing materials, drivers/travel, social interactions, etc. Otherwise write n/a

n/a

V. OVERALL RESULTS
Winter Officer Meetings were very concise and largely covered events related to service (tutoring, academic outreach, and EMCC). General attendance was consistent.

VI. EXHIBITS (if any)
n/a
6.3 Spring Officer Meetings

Project date: 4/2/18 - Present
Number of participating members: 10 (Average)
Number of participating electees: 0
Number of participating mentees: 0
Hours spent planning (total): 0
Hours spent participating (per person): 1 (Per Meeting)
In conjunction with another group: No

I. PROJECT DESCRIPTION
Officer meetings allow for dissemination of tasks, updates, and news among all officers.

II. RELATIONSHIP TO OBJECTIVES OF TAU BETA PI
Officer meetings facilitate brainstorming of ideas to improve chapter outreach through events both on and off campus. Officers are encouraged at meetings to provide services to the student body by volunteering for various events, such as tutoring, industry open houses, and socials. Off-campus events planned at officer meetings include community service and after-school programs. Fall and Spring Officer Meetings also plan events for incoming candidates to fulfill tasks exemplifying excellence in service to the student engineering community and become eligible for initiation into the chapter membership.

III. COST AND PERSONAL REQUIREMENTS
None

IV. SPECIAL PROBLEMS
None

V. OVERALL RESULTS
Spring Officer Meetings were very concise and largely covered updates relating to the Rube Goldberg Competition and candidate events. General attendance was low because the meetings were held later than they typically were. Despite this, officers from every position still tried to provide an update during each meeting, either by sending one representative or by providing members of the Executive Board with their updates beforehand. Attendance was also recorded for each meeting.
6.4 Sample Meeting Minutes

**Wednesday, November 18th**
Here (17): Johnny, Kushal, Alan, Christopher, Victor, Elijah, William, Keshav, Michael, Chadi, Jingjing, Patrick, Thomas, Bharat, Carter, Vincent, Carlos

**All**
-Make sure one person from each officer team is able to attend the weekly meetings
-Access the Officer Google Drive [here](#)
-For project reports, the folder can be found [here](#). Please submit these within 1 week of your event.
-Update your events [here](#). Make sure there is not a time or room conflict
-General: Officers, please add yourself to the publicity channel if you would like to make any request for FB events or flyers
-RECRUIT more professors for Meet & Greet for this Thursday at Boelter 4275. Officers...come to this.

**Vice Presidents**
-Mark’s Alumni Even this Friday (What will he go over and what do we need for him)
  -A lot of people attending are CS/CSE
  -Karaoke Night right after
  -Will talk about tech-related stuff (infrastructure) and maybe TBP

**Treasurer/Corporate**
-Follow-up meeting with Deb? Plans for next year?
  -Just Alan (will follow up after)
  -May do DSS again next year
  -Some people unhappy (nothing for BioE; company execs didn't really speak with anyone)
  -Work on reaching out to alumni network
  -For future, have at least one company per major and have companies showcase more
  -Some complaints from other groups for not being invited
-Budget proposal system. Feedback on this so far?
  -Done, just need to send out email
  -Matt filled out form for Meet and Greet
-Only have recharge ID for Dean's account
-Action Item: Please forward a list of recharge IDs into the Slack Channel
Secretary
-Catalog cards and Eligibility List to Rebecca at Tau Beta Pi HQ (rebecca@tbp.org). Update?
-Need to follow up with Rebecca.
-Johnny will follow up with Rebecca
-Making use of the events sheet to keep track of project reports.
-Feedback on Class Planning Workshop
- Mostly ECE majors
- Will probably not co-host with specialized majors
- Maybe try doing it on the Hill

Tutoring
-Last Week Issue: Don’t have a lot of candidates to their assigned tutoring. (Not showing up, or HKN/UPE)
- A lot of candidates not showing up to meeting
- Will meet with any candidates
-Action Item: Asking tutors to clean-up the room a little bit during their shifts. Start this culture of keeping the room CLEAN.

Community Service
-1 candidate donated blood (new low)
-Some candidates may have been discouraged to donate because of voting credit (7 people)
-Action Item: Continue to forward selected volunteer events from the UCLA Volunteer Center that we could all do together → Really want to do events TOGETHER WITH THE OFFICER.
-Can help high school students with college apps (3:15-6 Monday and Wednesday every week)
-Hollywood and Fairfax High School
-Too much paperwork/tests to interact with patients in hospital

EMCC
-EMCC Feedback from last Friday?
- Went well (~13-14 kids there)
- Remember Haji and sad Daniel wasn't there
- Principal was busy, but will contact this week for photo waiver

Social
-Action Items:
Work with the Member Coordinators to plan out large social events. Be sure to budget ahead of time!
-Let’s go over all the events we have planned out
Ultimate Frisbee / Board Game Night feedback

Publicity
  - Publicizing more now
  - Not too many people signed up
- One candidate asking if AO can still count for community service hours
  - Send contact info to William
- NEW: Alumni/Officer/Member Spotlights
  - If you get a random email from Johnny, it's not spam (unlike last year)
  - Tag more CS people in group photos to increase publicity on social media
- Headshots! We’ll be scheduling this sometime Week 8 or Week 9 this quarter. We’ll be sending out a separate email
  - Will happen in the morning
  - Will probably wait until Winter quarter with new officers

Member Coordinators
- Around 5 candidates dropped
- Low numbers this year (not sure why)
  - Didn’t send out letters this year
  - Want to focus more on PR (maybe go out to EAF or Engineering Welcome Day so freshmen know about TBP)
- Meet & Greet / Signature Party: Thursday of Week 6
  - Mediterranean food
  - Talk and eat (need some guidelines/backup questions or talking points)
  - Add games similar to Signature Party
    - Quick board games
  - Have slideshow in background
  - Only 3 MechE professors attending
- Actionable Items: Recruit more professors
- Bent Polish: Feedback?
  - Went well, although some people didn’t show up
  - Mark everyone who attended on spreadsheet
  - Order polish earlier
  - Have fewer times so officers will not be spread thin
  - Berkeley does it all in one day
  - Maybe have one Bent Polish every other week rather than all in one week (different times each week)
-Reminder: Plan and budget events at least a week ahead of time and make sure we have enough shirts for initiation.

**Project Chairs**
- RG Committee Meetings (logistics, publicity, judging, committee formation)
  - Requested EAA funding of $700
  - Will be fine
  - Have personal vendetta against us
  - Will call ASUCLA tomorrow for venue
  - Aiming for end of February (Week 7)
  - Send out email to candidates for committee
- Have new graduate advisor from Berkeley (their project chair)

**Actionable Items**
Send out an email to candidates about joining RG committee and the benefits. (Can substitute certain event requirements or satisfy part of the weekly volunteering → commitment to Fall and Spring RG meetings)

Need 3 Committees: Logistics, Publicity, Judging...

**EAA Funding Meeting. Follow-up from them?**

**Webmasters**
- TBP Website Redesign: We’re doing to do everything in-house [Re-design meeting?]
  - Right after meeting
- Forums (Q&A): Hard-deadline to release the new system in Winter 2019. [START NEXT QUARTER...End of Next Quarter → RELEASE BY SPRING QUARTER]
  - Sign-in issue follow-up from last week

**Academic Outreach**
- Physics 1A Review Session on Saturday
  - 20 people came
  - Good reviews
- Math 32A Review Session next Thursday
  - 1 project report done and contacted other two sessions
  - 1 candidate interested in doing academic outreach
  - Guarantee officer position (similar to RG committee members)
- Work with the publicity channel to push out FB events ASAP! Message the Slack to get Thomas rolling on the events
  - Remaining FB events for review sessions have been pushed out! Looking forward to them.
- Feedback from past review sessions (11/4)
Misc

- Will have food next meeting (thanks to Bharat)
Dear Parents:

Congratulations on your son or daughter’s invitation to join Tau Beta Pi. This is a very important recognition of his or her accomplishments as a student in the UCLA Henry Samueli School of Engineering and Applied Science. On behalf of all the members of the faculty, I extend to you and your student my sincere congratulations.

Tau Beta Pi is the second oldest Greek-letter honor society in America; the oldest is Phi Beta Kappa. Both societies are well known and respected throughout the United States. The latter is restricted to students in the liberal arts, while Tau Beta Pi is designed to “offer appropriate recognition for superior scholarship and exemplary character to students in engineering.” To qualify scholastically, your son or daughter ranked amongst the top eighth of the junior class or the top fifth of the senior class of engineering students.

Since 1952, the California Epsilon Chapter of Tau Beta Pi has been one of the major student organizations at UCLA. Today, it is also a major chapter in the United States in both student and alumni membership. The chapter is not only an honor society to pay tribute to outstanding students; it also provides a vehicle for such students to assume a role of leadership in the college and to be of distinctive service. Tau Beta Pi members are active in creating numerous engineering student projects, competitions, and mentorship programs. It is one of the most prestigious engineering societies to which one can be elected as an undergraduate.

Orientation meetings for those scholastically eligible to join Tau Beta Pi will be held on Wednesday, April 3rd at 5:30 PM in Boelter 4275 and Thursday, April 4th at 5:30 PM in Boelter 4275. Attendance at one of these meetings is absolutely necessary for those who wish to join and an online RSVP is required at https://forms.gle/yKYx2iEhgm2YyZkJf. I am writing this to you because address changes always seem to result in a few eligible students not being contacted in time. If you think your student’s invitation might not have reached him or her, please have them contact taubetapi@seas.ucla.edu.

In order to support the operation of the local chapter and the national organization, California Epsilon must charge an initiation fee of $100. As a member myself, I heartily endorse membership in Tau Beta Pi, and I hope your child will give this invitation very serious consideration; the returns on the initiation fee should be more than worthwhile. Thank you, and best regards.

Sincerely,

Jayathi Murthy, Ph. D.
Dean
6.6 Candidate Orientation Intro Slide
Core Requirements: Mandatory
- Bent Polish
- House social
- Candidate Quiz + Fee
- Resume Submission
- Initiation

Weekly Volunteering: Choose 1 Option
- EMCC (weighted by 1.5x)
- Tutoring

Social: Attend 2 Events & 1 house event
- Misc. (Various social events will be held throughout the quarter such as movie and game nights) that you may attend

Publicity: Chalk for 1 class
- Chalking

Service: Attend 6 hours (Cannot be fulfilled by weekly tutoring)
- Academic Outreach, EMCC (counted as 3 hours each)
- If you do one of these events for weekly requirements, you cannot do the same one to fulfill the service requirement
- Community Service

Elective: Choose 2
- Social, Signature Project, Review Sheets, Meet and Greet, Career Events, or Review Sheet
- Social, Signature Project, Review Sheets, Meet and Greet, Career Events, or Review Sheet
Core Requirements:

Weekly Volunteering Options – do NOT count for the service requirement

Fill out the online form declaring your track by **April 13th (Saturday of Week 2)**

1. **Tutoring**
   a. Drop-in tutoring begins **Apr 15th (Monday of Week 3)** in the TBP tutoring room (Boelter 6266) and ends **May 31st (Friday of Week 9)**. Arrive at your scheduled time, sign in, and wait for tutees to drop by.
   b. Please notify tutoring chairs (tutoring@tbp.seas.ucla.edu) about any tutoring sessions you cannot make.

2. **Academic Outreach**
   a. During the quarter, volunteers lead review sessions on the hill for lower division STEM courses.
   b. We can accept only a limited number of volunteers to this program. Contact the academic outreach chairs (academic.outreach@tbp.seas.ucla.edu) with any questions.

3. **EMCC**
   a. Weekly workshops at Norra Sterry Elementary students with fun STEM experiments.
   b. Sessions are tentatively Friday afternoons from Weeks 3 to 9. Contact EMCC chairs (educ.outreach@tbp.seas.ucla.edu) with any questions.

**House social**
- Get to know your fellow candidates with fun activities
- House social will be on **Apr 19th (Friday of Week 3)** at TBD.

**Bent Polish**
- Honor the Tau Beta Pi symbol by spending 30 min polishing the large bent in front of Boelter.
- Bent Polish will be **Monday through Thursday on Week 5. (April 29th to May 2nd)**

**Resume Submission**
- Submit your resume online **May 17th (Friday of Week 7)**, will be distributed to companies.

**Candidate Quiz**
- During Week 7, take and pass a quiz about TBP. Information covered by the quiz can be found in booklets in Boelter 6266 and the TBP website.

**Initiation Fee**
- The lifetime membership fee is $100. Please make checks out to “Tau Beta Pi” or venmo @tbpucla
- Initiation fee covers national and chapter dues, a personalized engraved golden bent, a certificate, a Tau Beta Pi T-shirt, a subscription to “The Bent” magazine, and initiation dinner.
- Initiation Fee will be due during the candidate quiz.

**Initiation Ceremony and Banquet**
- To initiate, you **MUST** attend the initiation ceremony on **June 4th (Tuesday of Week 10)**
- After initiation, we will hold officer elections for the next term and celebrate with a banquet.
Other Events:

Candidate Meet and Greet
- Have the chance to talk one-on-one with TBP officers. These conversations are a great opportunity for us to get to know you, and for you to ask about TBP or the initiation process.
- **We strongly encourage candidates to attend Meet and Greet**

Professor networking
- To talk to professors about academia life and research
- To help candidates who want to go to graduate school
- To know more about professors in their own departments

Publicity Events
- Help publicize TBP events through chalking
- Chalking: Write a short blurb on TBP events/services (academic outreach, tutoring, etc…) in classrooms and briefly speak to the class about them

In addition, there may be opportunities for additional events such as attending the Dean’s Student’s Showcase career fair.

The candidate process is not meant to be a burden on you, but rather a means for you to show the exemplary character required of all Tau Beta Pi members. It also allows us to introduce you to the programs and events that TBP has to offer. If you have any questions or concerns about the initiation process, email Johnny Lee, the chapter president, at president@tbp.seas.ucla.edu.

**Important Policies:**
You will be allowed three strikes during this process. More than three strikes will result in an immediate removal of eligibility for this quarter. Strikes will be applied when a candidate misses an event and does not notify any officer **BEFORE** the event.

You must sign in to all events to receive credit for those that you attend.
| Week 1 | | | | | | |
|---|---|---|---|---|---|
| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| Week 2 | Orientation | Orientation | Candidacy Deadline | |
| Week 3 | Drop-in Tutoring Begins | Meet and Greet | Meet and Greet/House social | |
| Week 4 | | | | | Social | |
| Week 5 | | | | | | |
| Week 6 | Bent Polish | Bent Polish | Bent Polish/Professor networking | Bent Polish | |
| Week 7 | | Candidate Quiz | Candidate Quiz | Resume Due/Social | |
| Week 8 | | | | | Social | |
| Week 9 | | | | | Last Day of Drop-in Tutoring | |
| Week 10 | | Initiative and Banquet | | | | |
7 Closing Remarks

*From the incoming President of Tau Beta Pi - California Epsilon:*

To whom it may concern,

Thank you for taking the time to read our chapter’s yearly project report. I hope that it helps to capture the many accomplishments of our chapter throughout the year. We have many dedicated members who demonstrate excellence in engineering within their classes and within the UCLA community. I am proud of the efforts of our chapter to promote the values of Tau Beta Pi at UCLA and provide services to the community around us. However, striving for excellence means constantly seeking out ways to improve, and I am looking forward to leading this effort next year to increase our presence and impact on campus.

Sincerely,

Bharat Pradeep

President, 2019 - 2020

UCLA - California Epsilon