

K-12 Outreach Committee (K12)

A. Introduction

1. **Charge** - The Orange County Branch will visit a minimum of six schools in Orange County to educate students about Civil Engineering.
2. **Strategic Goals** - Many of the OC Branch members have connections to OC schools either through friends or family. These members are commonly requested to speak to a class about civil engineering. The ASCE OC Branch and Younger Member Forum (YMF) would like to have an opportunity to have a representative from our K-12 committee join members when they visit the schools to potentially meet teachers and start developing relationships with Orange County Schools.

The committee is structured a little differently so that each member makes a commitment on how many schools they will visit in a year. We also would like to encourage the local universities (CSULB, CSUF, and UCI) to adopt local schools in Orange County, which they visit each year.

- a. Current
 - Visit at least six schools.
 - Look for opportunities to include experienced members in outreach activities
 - Involve the three student groups
 - Increase OC Branch and OC YMF participation in outreach events
 - OC Branch to work with school leaders/school board/PTA for opportunities to visit schools.
 - Maintain a spreadsheet of all the schools in OC with chairs having access to these spreadsheets
- b. Near Future (5 to 10 years)
 - Open Civil Engineering club in high schools in OC (maybe one per year if sufficient commitment from members of school faculty, parents, and/or ASCE members).
 - Increase ASCE participation in High School STEM programs. Potentially assist teachers with their curriculum to educate students about engineering (curriculum could be limited to one class).
 - Potentially assist with ACE mentorship. May be limited to visitations to schools which participate in the ACE mentorship program or something more, depending on volunteer commitment and high school.
 - Develop new outreach materials for K-12, which can be adjusted based on age of students, time of presentation, and membership participation.
 - Committee to annually re-visit hands-on learning activities for classroom visits and tips on how to run the presentation.

- Provide training sessions/hold workshops for teachers to help educate what engineers are and what they do
 - Create best practices for K-12 presentations and outreach
 - Participate in the Science Fair (i.e. offer to be a judge). Meet with organizers of the Orange County Science Fair to see if there are opportunities for further ASCE participation beyond providing judges.
 - Develop an Engineering Day at the mall. Work with San Diego Section to develop lessons learned and adjust to meet the potential needs in Orange County.
- c. Ultimate (20 to 30 years)
- Have multiple Civil Engineering clubs at high schools in OC who are interested that are sustainable with minimal oversight for OC Branch and OC YMF boards.
 - Strategically look at how we can introduce most students in Orange County to Civil Engineering at some point between K-12. It may be better to visit some students at earlier ages (large high school graduation potential) in some areas and later ages in others (low high school graduation potential).
 - K-12 committee main focus to be coordinating all the members participating in K-12 visitations and providing materials.

3. Society Branch Award Category - Professional Activities/Scholarships/Awards-Recognition Programs, Diversity & Inclusion, and Public Outreach/Education Activities

B. Membership

1. Committee Makeup

- One co-chair from OC Branch minimum
 - One co-chair from OC YMF minimum
 - Committee members will consist of individuals able to assist with coordinating presentations at Orange County schools and members who can present to the schools. Each member making a commitment to how many schools they can visit each year.
 - The OC Branch president will be a member of this committee and become the OC Branch co-chair if the position is vacant.
- a. High School Subcommittees
- YMF: Popsicle Stick Bridge Coordinator (PSBC) - one member of the committee who is not a co-chair will assist YMF with the PSBC and keep the committee informed of needs and works with YMF and OC Branch to advertise the needs to members. This chair will lead their own ad-hoc subcommittee during the years that OC YMF hosts the PSBC.
 - Branch: Civil Engineer Club - works with teacher and sponsoring university to have regular events that generally follow the guideline curriculum developed by Society.
 - ACE Mentor - work with a ACE mentoring program at an

Orange County high school and coordinate to provide speakers and field trips for the students. Attends approximately one meeting a month. Subcommittee chair may be YMF or Branch member.

- STEM: OC Branch to meet with organizers to see if there are more opportunities to participate in STEM program beyond presentations to students participating in the program.
 - Science Fair
 - Engineer Day
 - Teacher Training
- b. Middle School Subcommittees
- Science Fair
 - Engineer Day
 - Teacher Training
- c. Elementary School Subcommittees
2. **Leadership and Organization** - The committee is led by the two co-chairs who work together to coordinate visitations to Orange County schools. The two co-chairs then coordinate with other committee members to have ASCE members available at the scheduled time to visit Orange County schools. At such a time where the committee is large enough there will need to be a re-evaluation of having a lead Chair, Vice Chair, Treasurer, and so on to oversee the activities of the sub committees.
3. **Committee Appointments** - The president of the Orange County Branch appoints one co-chair and the president of the OC YMF appoints the second co-chair. Both branch and YMF presidents can appoint additional members to the committee as they feel is appropriate. At such a time where the K-12 committee is large enough, this can be revisited to determine the need for elections.

C. **Procedures** - The Committee shall function in accordance with the Orange County Branch Constitution and Bylaws, and the current edition of Roberts Rules of Order - Newly Revised.

D. **Budget** - Both Orange County Branch and Orange County Younger Member Forum budget funds to support this committee. The funds will be reimbursed in accordance with the Orange County Branch's or YMF's reimbursement policy. If the committee becomes large enough it may have to handle its own finances and budget.

E. **Calendar**

- Oct to December - visit three schools
- February - YMF PSBC
- February to June - visit three schools
- June to August - Engineering Day (likely first in 2015).
- June to August – Schedule Hands-On activities re-evaluation/training session.