Contact Information

Oregon State University ASCE Student Chapter

CCE School, 101 Kearney Hall, OSU, Corvallis, OR 97331

President: Nicholas Hossley
Email: hossleyn@oregonstate.edu

Faculty Advisor: Dr. Tom Miller
Email: Thomas.Miller@oregonstate.edu

Website: http://groups engr.oregonstate.edu/asce/home
Facebook: @asce.osu
Instagram: @osu_asce
Eventbrite: OSU ASCE Student Chapter
Executive Officers
April 2016 – March 2017

President: Cody Beairstc
beairstc@oregonstate.edu

Treasurer: Cadell Chand
chandc@oregonstate.edu

Vice President: Daniel Peoples
peoplesd@oregonstate.edu

Executive Chair: Nicholas Hossley
hossleyn@oregonstate.edu

Secretary: Neamh Gaddi-Nguyen
gaddingn@oregonstate.edu
Executive Officers
March 2017 – April 2018

**President:** Nicholas Hossley
president.osuasce@gmail.com

**Vice President:** Antonio Mititiero
vicepresident.osuasce@gmail.com

**Treasurer:** William Blackburn
treasurer.osuasce@gmail.com

**Executive Chair:** Hannah Helwig
executivechair.osuasce@gmail.com

**Secretary:** Nicholas Edwards
secretary.osuasce@gmail.com
Advisors

**Faculty Advisor:** Tom Miller  
Thomas.Miller@oregonstate.edu

**Practitioner Advisor:** Todd Whitaker  
todd@whit-engr.com

**Concrete Canoe Advisor:** Jason Ideker  
idekerj@oregonstate.edu

**Practitioner Advisor:** Dusty Andrews  
dusty.andrews@kniferiver.com

**Practitioner Advisor Emeritus:**  
Ken Archibald  
kjarchibald@yahoo.com

**Practitioner Advisor:** Josh Goodall  
joshg@quincyeng.com
Financial Summary

• Dues structure: One-time fee of $15 for new members

• As of December 31, 2017
  • Total income: $51,699.15
  • Total expenditures: $28,645.97
  • Cash balance: $23,053.18
  • Accounts receivable: $0.00
  • Accounts payable: $0.00
Goals and Objectives

“The objectives of the OSU ASCE Student Chapter are the advancement of the art and science of engineering, the professional improvement of its members, the encouragement of civil responsibility of its members and the encouragement of professional and social interaction between students of civil engineering and between such students and practicing engineers.”

6 long-term goals were established
to meet these objectives.
Goals and Objectives

1. Increase National Membership to 200 Students.
2. Complete 8 Service Projects
3. Qualify both Steel Bridge and Concrete Canoe for Nationals
4. Host at least 12 Speaker Meetings.
5. Achieve National Recognition for the Annual Report
6. Hold 7 Joint Events with other clubs on campus.
Have 75% of Student Members be National ASCE members

Detailed Description of Goal:

In 2015, there were 175 student members on average during the year. A goal was set to increase membership by 30% to 200 students in 2015. In 2016 we met that goal as membership increased to 244 members. All of the members in these years were national members submitted to ASCE as a group. As a result of the new national ASCE requirement for students to individually register (vs having the chapter submit the information) we modified the goal to having at least 75% of our student members register nationally.

Action Plan:

In 2017, more effort was focused on reaching out to the underclass students and informing them about the opportunities of ASCE after graduation. A new ASCE Families program was implemented in the Fall of 2017. This is a member involvement program to help improve recruitment, involvement, and retention.
Have 75% of Student Members be National ASCE Members

Assessment:

Partially Achieved: National student membership was 145 students on average during 2017, 64% of our chapter members.

Follow-up:

Currently, there are 3 aspects of registration: joining a student organization on campus, paying chapter dues, and individually joining ASCE national, 2 steps more than just a few years ago. Our online membership application system will be continued in 2018, but we will strive to combine at least 2 of the steps above. This will make signing up for ASCE easier for students, easier to manage, and make every member who signs up a national member. Extra effort will go out to recruiting graduate students, many who come to OSU as Student Members. Continue to increase announcements in all classes about membership and activities, especially the Freshmen orientation class.
Complete 8 Service Projects

Detailed Description of Goal:

Perform 8 community service projects and outreach efforts. This was nearly accomplished in 2016 and is maintained as a goal.

Action Plan:

Increase the number of design and construction projects in the total. Officers will reach out to new sources of volunteers in the chapter, especially underclassmen. Continue the successful Sidewalk Repair and Habitat for Humanity projects.
Complete 8 Service Projects

Assessment:

Nearly Achieved: 7 projects completed by ASCE in 2017, including one with design and construction components. These include Habitat for Humanity, Sidewalk Replacement on campus, Adopt-A-Highway, outreach to elementary and high school students. Additionally, the most significant project was the hosting of the National Student Steel Bridge Competition in 2017.

Follow-up:

Work more with AGC to develop construction projects, such as the very successful sidewalk repair on campus. 2018 will be the 4th year for this type of effort. Expand outreach efforts to schools as well. Several are already planned for early 2018.
Qualify both Steel Bridge and Concrete Canoe Teams for Nationals

Detailed Description of Goal:

The goal again for this year is to have both OSU ASCE teams participate in the national competitions.

Action Plan:

Each of the team captains will focus on weaknesses in previous contests: refining the construction process for the bridge and improving racing/paddling for the canoe.
Qualify both Steel Bridge and Concrete Canoe Teams for Nationals

Assessment:

**Partially Achieved:** The teams both competed at the PNW conference, and steel bridge made it to the national competition at OSU by placing 3rd. The canoe team placed 2nd. Additionally, the chapter placed 1st in overall combined performance at the conference.

Follow-up:

Continue to work on historical weaknesses for each team. The canoe team has continued to construct a practice canoe for improving fabrication and paddling. This is a significant improvement. The bridge team strives to order steel before New Years and be able to start fabrication at the start of Winter term. This will provide more time for construction practice.
Host at least 12 Speaker Meetings

Detailed Description of Goal:

12 professional speaker meetings, including industry practitioners and researchers/professors to discuss projects and the CE profession.

Action Plan:

The plan for the upcoming year is to keep a successful speaker program going. In 2016, 26 speaker meetings were held. Invite these speakers to return, and seek new ones in more varied disciplines.
Host at least 12 Speaker Meetings

Assessment:

Achieved: 24 speaker meetings/joint speaker meetings were held during the 2017 year.

Follow-up:

The plan for 2018 is to continue the quality of meetings and perhaps have a few less meetings with larger attendance. We will invite more speakers to help with the cost of refreshments for the students. This will increase attendance, and help to completely cover the food costs for meetings during the year.
Achieve National Recognition for Annual Report

**Detailed Description of Goal:**

Prepare an annual report that highlights the chapter’s accomplishments effectively and in a clear and concise format, and recognition with a Certificate of Commendation.

**Action Plan:**

Have the Secretary work on the membership roster and collection of activity and project reports throughout the year. Have regular executive officer meetings to keep everyone informed and working together as a group.
Achieve National Recognition for Annual Report

Assessment:

Partially Achieved: 2016 Letter of Honorable Mention

Follow-up:

Continue to improve recording of activities during the year and work to expand community service efforts by including more students who are not involved in ASCE in other ways. Incorporating students, both chapter and non-chapter members, and research presentations into meetings is another effort that the club wants to pursue to further student engagement into ASCE and civil engineering. An improved process for incorporating national membership registration with chapter membership is also needed.
OSU Chapter History of Excellence

- The OSU ASCE Student Chapter was first established in 1921, and only six other student chapters are older. They were established in 1920. We have been recognized consistently as one of the top chapters in the country:
  - Outstanding Community Service Award (1996)
  - Service Certificate of Commendation (2004 and 2008)
  - Service Award (2010)
  - Distinguished Chapter Award for Region 8 (AK, AZ, HI, ID, MT, OR, UT, WA) (2014)
  - Richard J. Scranton Outstanding Community Service Award (2014) and Finalist (2016)
Hold 7 Joint Events with other Clubs on Campus

Detailed Description of Goal:

Hold at least 7 social, professional and service events with a number of other student groups on campus.

Action Plan:

Expand our set of collaborative functions with groups outside ITE and the AGC student chapters, such as Women in Science and Engineering. This would give the chapter a voice to people who are less likely to hear about ASCE but might still be interested and broaden perspectives for our members.
Hold 7 Joint Events with other Clubs on Campus

Assessment:

Achieved: The chapter had 12 joint activities with AGC, ITE, EERI and others. A meeting with a new group, the Forest Utilization Society was held. These included sports, speaker meetings, and service projects.

Follow-up:

The continuing goal is to work with the groups above and expand the joint speaker meetings and activities to other student clubs, such as WSE. We need to look for ASCE members who are in these other groups as well and use them as links.
Membership Statistics

• 228 total OSU student members
• 145 total ASCE National Society-level members
• 64% of Members are Society-level Members (Society-level/total chapter members)
• 154 members with Junior and Senior status
• 223 Juniors and Seniors eligible to join ASCE
• 69% of eligible Juniors and Seniors are members
Meeting Statistics

- 17 professional meetings with an invited speaker plus 7 additional professional meetings that were joint events
- 6 meetings with student presentations as part of the meeting and/or paper(s) presented
- 3 professional licensure meetings and/or ethics topics presented
- 1 field trip
- 10 social functions
Popular Meetings/Activities

- Cookies and Clubs
- Officer Retreat
- Bowling Night
- Meet-A-CE Day
- Resume and Cover Letter Workshop
- Mentoring Study Sessions
- ASCE vs. AGC Flag Football Game
- Galvanizers Meeting
- "Dream Big" OMSI Field Trip
- Kickball and Picnic
ASCE Families Program

Our student chapter began a new social program in 2017 to increase member participation and involvement, while making ASCE a more inclusive environment for members.

The program puts all participating members into four "Houses": "A" House, "S" House, "C" House, and "E" House. Each house is led by an executive officer of the chapter. Each house can earn points by attending events with their families. At the end of the school year, the points will be tallied and the winning family will get a prize!

Currently there are over 50 ASCE student members participating!
Cookies and Clubs

At the start of every school year, OSU holds a Cookies and Clubs event to spread the word about engineering student organizations. ASCE uses it to promote Concrete Canoe, and Steel Bridge to incoming freshmen in CE or CEM.

A total of 10 student member officers attended, along with 30+ interested freshmen at the event.
Officer Retreat

Our annual officer retreat was held in Pacific City, OR to welcome new student officers, participate in bonding activities to create a unified team, and plan with one another for the upcoming school year.

A total of 15 student member officers attended, along with 2 practitioner advisors and our faculty advisor.
Bowling Night

At the end of fall term, bowling night was held for student members to come and enjoy free food, bowling and pool, to build community and have a good time! A total of 15 student members attended along with our faculty advisor.
Meet-A-CE Day

This event was hosted at OSU this year with PSU, UP and OIT also participating. 15 professional engineers came with panel discussions and lots of networking time and good food. There was an excellent presentation on the design and construction of the new elephant lands exhibit at the Portland zoo. The day ended with a dodge ball game with all of the various groups attending. 39 students, 2 practitioner advisors and our faculty advisor were there.
Resume and Cover Letter Workshop

This event consisted of a presentation by the Career Services Center on how to build a proper resume and cover letter and tips on what and what not to include. The second half of the presentation included one-on-one sessions with peers reviewing students’ current resumes and cover letters.

There were 40 student members in attendance along with our faculty advisor.

This event was held one week before the OSU-hosted Career Fair for civil engineering and construction management engineering majors.
Mentoring Study Sessions

Students gathered one week before midterms began and again one week before finals began to study for those tests. This session included groups of students working together to finish assignments and study for exams in classes they shared. It also included upperclassmen helping underclassmen with classes that the juniors and seniors had already taken.

Between the two sessions, 20 student members were in attendance along with our faculty advisor stopping by.
ASCE vs AGC
Flag Football Game

ASCE and AGC played a couple of friendly games of flag football at the intramural fields at OSU.

ASCE won both games, the first one with a score of 34-6, and the second 19-0.

In all, 20 CE and CEM students participated, with our faculty advisor cheerleader.
Galvanizers Meeting

• Over 25 ASCE students and our faculty advisor attended the Galvanizers’ presentation on their hot-dipped galvanized steel process.

• Chemical bonds between elements, different uses of galvanized steel, and the improved durability were all discussed. Great food provided!
“Dream Big” OMSI Field Trip

Student members took a field trip to the Oregon Museum and Science Center in Portland, OR to tour the museum and watch the ASCE-sponsored film “Dream Big”. There were 5 student members in attendance along with our faculty advisor. Tour of a WWII submarine also!
We held our annual end of the year picnic and a kickball game with ASCE and AGC student. The event concluded with the awarding of the Teacher of the Year award to own Dr. Tom Miller.

There were 16 student members in attendance along with our faculty advisor.
Pacific Northwest Student Conference

Boise State University, Boise, ID

April 20-22, 2017

• 34 OSU students attended

• Finished 1st overall among 19 different universities
Pacific Northwest Student Conference

**Steel Bridge** – 3rd overall (Co-captains: Garrett Childress, Oscar Gayet) – Qualified for Nationals!

**Concrete Canoe** – 2nd overall (Captain: Wyatt Morris)

**Technical Paper** – 2nd overall (Cody Beairsto)

1st overall in Environmental, 1st overall in Surveying (Distance Estimation), 3rd overall in Engineering Jeopardy
Concrete Canoe

Concrete Canoe members brought this year’s canoe to life, led by team captain, Wyatt Morris.

2017 Results:

• Overall – 2nd place
• Design Report – 1st place
• Final Product – 1st place
• Oral Presentation – 4th place
Steel Bridge

Team captains Oscar Gayet and Garrett Childress led the team to the Steel Bridge Nationals for the 4th year in a row. The team consisted of 30 members throughout the school year and 11 at the regional and national competitions.

2017 PNW Results
- Overall – 3rd place
- Construction Speed – 3rd place
- Economy – 3rd place
GeoWall

GeoWall is a student member team that focuses on the design and building of a mechanically-stabilized earth wrapped-face retaining wall to withstand a 60 lb. vertical surcharge load.

Placed 15th in National competition at GeoFrontiers in Orlando, Florida!
Workshop for Student Chapter Leaders (WSCL)

Los Angeles, CA (Left the snow in Portland behind!)
January 13-January 14, 2017
Students: Nick Hossley, Cadell Chand, Neahm Gaddi-Nguyen
Faculty advisors: Tom Miller
SEI Local Leaders Conference

Chicago, IL: October 20-22, 2017

1 grad student member attended (Cody Beairsto)

OSU ASCE-SEI Student Group was initiated in 2017
Special Projects

- National Student Steel Bridge Competition (NSSBC)
- OSU Sidewalk Repair
- Adopt-a-Highway Clean-up
- Habitat for Humanity
- Family Science and Engineering Outreach
- CH2M/OSU High School Bridge Contest
- CH2M Middle School Visits
Hosting National Student Steel Bridge Competition (NSSBC)

DESCRIPTION
From May 26-27, 2017, Oregon State hosted the National Student Steel Bridge Competition. The event included 43 schools from around the world, with 477 students participating and 553 people in attendance. The event included a keynote speaker, a banquet, competition day and display, and an award ceremony.

ENGINEERING COMPONENT
Structural Analysis: Student members involved in Steel Bridge around the world got experience with building and designing bridges using structural analysis software and design codes.

PROJECT IMPACT
• The NSSBC brought together students from the US, China, Mexico and Canada.
• The event also provided our students the opportunity to gain experience in organizing such a huge event; it took 1 and a half years to plan!

PARTICIPATION
65 different OSU ASCE student members participated for a total of 260 person-hours in the execution of the event over the two-day period and many additional hours prior for the planning team.
Hosting National Student Steel Bridge Competition (NSSBC)
National Student Steel Bridge Competition (NSSBC)

Oregon State’s Steel Bridge placed 23rd overall in the nation!
OSU Sidewalk Repair

DESCRIPTION
OSU ASCE students and AGC students participated in the repair of a section of sidewalk leading to the Memorial Union building at Oregon State University. The project was performed for OSU Facility Services and coordinated with them and the City of Corvallis. (5/18/17-5/19/17)

ENGINEERING COMPONENT
Students who participated in the event experienced concrete construction first-hand, including leveling out the soil as a foundation and concrete mixing.
OSU Sidewalk Repair

PROJECT IMPACT
• Student members for the 4th time worked to give back to the community and provide a new sidewalk for OSU.
• Students were taught to think about safety, including wearing hard hats and gloves, along with maintaining clean construction conditions.
• The project helped students from ASCE and AGC to bond.
• Some quality control issues taught lessons in pre-project training for future efforts.

PARTICIPATION
Four OSU ASCE student members and one ASCE faculty advisor participated for 20 person-hours in the execution of the event.
Adopt-a-Highway Clean-up

DESCRIPTION
OSU ASCE students participated in with the ITE student group in an Adopt-A-Highway event to help clean up two miles of Hwy 34 east of Corvallis on two separate occasions. (5/20/17) (9/30/17)

ENGINEERING COMPONENT
Students who participated in the event had the opportunity to observe civil engineering features along the highway, such as culverts and signage, and helped in maintaining a clean transportation link between Corvallis and I-5.
Adopt-a-Highway Clean-up

PROJECT IMPACT
• The event allowed student members to give back to the community and provide a clean highway to welcome people to OSU travelling along Hwy 34.
• Students were taught to think about safety. Students were instructed to wear PPE, walk facing the traffic and avoid hazardous materials.
• Students from ASCE and ITE worked together as a combined OSU CCE community.

PARTICIPATION
Nine OSU ASCE student members and the ASCE faculty advisor participated for 30 person-hours in the execution of the two events.
Habitat for Humanity

DESCRIPTION
ASCE student members helped with a Habitat for Humanity house building project. The house was located on the west side of Corvallis. Student members did the interior painting for the house. (2/11/17) ASCE student members also held a Food Drive to raise money for families in need in a separate activity.

ENGINEERING COMPONENT
Student members were exposed to the process of building a wood-frame home, along with some discussion with the builders on how foundations and structural integrity are inspected.
Habitat for Humanity

PROJECT IMPACT
• ASCE student members gave back to the community and helped give a family a home of their own – a home they helped construct themselves.

PARTICIPATION
Eight OSU ASCE student members and the ASCE faculty advisor participated for 20 person-hours.
Outreach Family Science and Engineering Nights

DESCRIPTION
OSU ASCE students traveled to Takena Elementary in Corvallis, OR (1/10/17), and Hoover Elementary in Corvallis (3/9/17) to teach elementary school kids about civil engineering.

ENGINEERING COMPONENT
Earthquakes/Seismic Impact: There was a demonstration showing how earthquakes impact buildings using an earthquake simulating “shake table”.

Structural Design: The kids were given marshmallows and toothpicks so they could design and build a structure, and then that structure was tested on the shake table.
Outreach Family Science and Engineering Nights

PROJECT IMPACT

- The kids were taught about some of the things a civil engineer does, while entertaining them and allowing them to have fun.
- The three student members gained experience in public speaking, learning to communicate engineering ideas in easily understood language, and gave them an opportunity to give back to the community.

PARTICIPATION

Four different OSU ASCE student members and our faculty advisor participated for a total of 12 person-hours in the execution of the two events.
CH2M/OSU High School Bridge Contest

DESCRIPTION
The 48\textsuperscript{th} annual contest occurred on February 25\textsuperscript{th} from 7:00 AM to 2:00 PM in Owen Hall on Oregon State University’s campus. Students competed to design the most efficient bridge and the winners were judged by the ratio of the load carried to the weight of the bridge.

ENGINEERING COMPONENT
Participants learned about design and testing concepts, and introductory structural engineering concepts such as tension and compression. During the event, campus tours and an engineering presentation were provided by ASCE student chapter members.
CH2M/OSU High School Bridge Contest

PROJECT IMPACT
High School students from around the state of Oregon are introduced to the OSU campus, civil engineering, and professional engineers from CH2M and Knife River. The competitive atmosphere inspired students to improve from the previous year. The most efficient bridge carried 3,500 times its own weight of 14.1 g!

PARTICIPATION
Approximately 35 high school students, 15 teachers and parents, 25 OSU student volunteers and several ASCE practitioner and faculty advisors and engineering faculty were present for a total of 175 person-hours. We emphasized outreach at neighboring high schools to increase participation. The following schools attended the event: Riverdale, Springfield, Nestucca, Chemawa, South Salem, and Yoncalla.
CH2M Middle School Visits

DESCRIPTION
CH2M and our ASCE chapter partnered together to travel to local Albany middle schools and present structural engineering basics to the students in science classes for National Engineers Week. The students also got the opportunity to build their own structures out of cards to support coins. (2/20/17-2/21/17)

ENGINEERING COMPONENT
The student were exposed to basic structural engineering principles from a professional structural engineer.
CH2M Middle School Visits

PROJECT IMPACT
- Middle school students were exposed to civil engineering basics and also some examples of real-world applications.
- ASCE student members were able to work together with industry professionals.

PARTICIPATION
Two ASCE student members attended the event, along with one faculty advisor and one engineer from CH2M for a total of 3 person-hours volunteered.
Summary and Questions

Accomplishments

- Hosted 2017 National Student Steel Bridge Contest
- Steel Bridge goes to nationals for the 4th year in a row!
- Over 400 student volunteer hours
- Finished 1st overall at PNW Conference

Challenges

- Membership retention and registration reform
- ASCE Families Social Program incorporation into chapter
- New fundraising opportunities and canoe trailer acquisition