
Oregon State University

ANNUAL REPORT 2019
AMERICAN SOCIETY OF CIVIL ENGINEERS
STUDENT CHAPTER

Contact Information

*Oregon State University ASCE Student Chapter
CCE School, 101 Kearney Hall, OSU, Corvallis, OR 97331*

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Executive Officers

April 2018 – March 2019



President: Madison Hall
president.osuasce@gmail.com



Vice President: Amy McKee-Daviscourt
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Secretary: Haley Madland
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Treasurer: Bret Burch
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Executive Chair: Josephine Crofoot
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Executive Officers

April 2019 – March 2020



President: Maura Patterson
president.osuasce@gmail.com

Treasurer: Josephine Crofoot
treasurer.osuasce@gmail.com



Vice President: Cooper Frantz-Geddes
vicepresident.osuasce@gmail.com

Executive Chair: Rawan Al Naabi
executivechair.osuasce@gmail.com



Secretary: Mila Gaston
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Advisors



Faculty Advisor: Tom Miller
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Practitioner Advisor: Todd Whitaker
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Practitioner Advisor: Dusty Andrews
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Practitioner Advisor Emeritus: Ken Archibald
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Practitioner Advisor: Josh Goodall
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Financial Summary

Dues Structure: One-time fee of \$15 for new members

As of December 31, 2019:

- Total income: \$37,746.32
- Total expenditures: \$26,620.21
- Cash balance: \$11,126.11
- 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. Have 75% of Student Members be National ASCE Members
2. Complete 8 Service Projects
3. Qualify Concrete Canoe Team for Nationals
4. Hold at least 12 Speaker Meetings
5. Achieve National Recognition for Annual Report
6. Hold 7 Joint Events with other Clubs on Campus

Have 75% of Student Members be National Members

Detailed Description of Goal:

Have 75% of the average number of student chapter members during the year be national members of ASCE.

Action Plan:

In 2019, we continued to focus on reaching out to the underclass students and informing them about the opportunities of ASCE after graduation. Cookies and Clubs and ASCE Buddies were special programs used to recruit and maintain members.

Have 75% of Student Members be National Members

Assessment: Achieved

Total student chapter membership in 2019 was 210 and national student membership was 170, 81% of the chapter membership.

Follow-up:

There are 3 aspects of registration: joining a student club on campus, paying chapter dues to join the chapter, and joining ASCE national. We will continue to integrate these steps in 2020 while emphasizing the benefits of joining ASCE national for free. The student chapter's website was modified in 2019. Extra effort will also be made to recruit graduate students through SEI activities, many who come to OSU as Student Members.

Complete 8 Service Projects

Detailed Description of Goal:

Perform 8 community service projects and outreach efforts.

Action Plan:

Increase the total number of design and construction projects. Officers will reach out to new sources of volunteers in the chapter, especially underclassmen. Continue the successful Habitat for Humanity projects and outreach to local schools.

Complete 8 Service Projects

Assessment: Nearly Achieved

7 projects were completed by ASCE in 2019: Jacobs/OSU High School Bridge Contest, Restore project for Habitat for Humanity, a Food Drive, a Toy Drive, 2 Adopt-a-Highway cleanups, and a training session for Engineers Without Borders on mixing concrete.

Follow-up:

We will strive to work with AGC to develop construction projects. We will also continue to work with our local Habitat for Humanity organization, as these projects have been extremely successful. Also, efforts to maintain and complete this goal in 2020 will be initiated as soon as possible.

Qualify Concrete Canoe Team for Nationals

Detailed Description of Goal:

Concrete Canoe team to place 1st at PNW Student Conference and qualify for national competition.

Action Plan:

The captains focused on weaknesses in previous contests: refining the construction process, improvements in mix design and improving racing/paddling for the canoe.

Qualify Concrete Canoe Team for Nationals

Assessment: Did Not Achieve

The team competed at the Pacific Northwest Student Conference in 2019. Concrete Canoe placed 4th overall – not first as required for nationals

Follow-up:

In 2019/20, the concrete canoe team is emphasizing both dry workouts and paddling practices to improve paddling performance. The team is using the new RFP format for the contest to help better organize and schedule the team's activities.

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 year was to keep a successful speaker program going. In 2018, 17 speaker meetings were held, including jointly-sponsored ones. We will invite these speakers to return while seeking new ones in more varied disciplines. A new tracking system was developed by the VP to better manage speaker meetings.

Host at least 12 Speaker Meetings

Assessment: Achieved

15 speaker meetings/joint speaker meetings were held during 2019 (including ethics topics and joint-sponsored meetings). A somewhat smaller number was desired for this year to increase attendance and minimize conflicts with other meetings in CCE.

Follow-up:

The plan for 2020 is to maintain quality of meetings and increase the variety of disciplines involved. We will continue to invite speakers to help with the cost of refreshments for students. This will hopefully increase attendance, and help to completely cover the food costs for the year. We will record meetings and attendance immediately afterwards into the ASCE online system.

Earn 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 receive recognition with a Certificate of Commendation.

Action Plan:

The Secretary will work on the membership roster and collection of activity and project reports throughout the year. They will also organize regular executive officer meetings to keep everyone informed and working together as a group. Historians will attend events to help collect pictures for the report.

Earn National Recognition for Annual Report

Assessment: Partially Achieved

Earned 2019 Letter of Honorable Mention for the 2018 annual report.

Follow-up:

We will continue to improve the recording of activities during the year by using the new ASCE Annual Report Portal. We will also work to expand community service efforts by including students who are not involved in ASCE in other ways. The membership registration process will be improved by making changes to our online form and due payment process.

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:

Certificates of Commendation (1972, 1978, 1979, 1987, 1992, 1993, 1994, 1995, 1996, 1998, 2002, 2003, 2004, 2005, 2006, 2008, 2011, 2013, 2015, 2018) for the annual report of the prior year.

Letters of Honorable Mention (1999, 2000, 2001, 2007, 2009, 2010, 2012, 2016, 2017, 2019) for the annual report of the prior year.

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) & Finalist (2016)

Hold 7 Joint Events with other Clubs on Campus

Detailed Description of Goal:

Hold at least 7 social, professional or 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 chapter such as; Women in Science and Engineering, Society of Hispanic Professional Engineers, EERI, COPRI, and the SEI Student Chapter. These activities will broaden perspectives for our current and future members.

Hold 7 Joint Events with other Clubs on Campus

Assessment: Achieved

The chapter had 12 joint activities with AGC, ITE, EERI, EWB, SEI, and COPRI. These included sports events, speaker meetings, social events and service projects.

Follow-up:

The continuing goal is to work with many groups on campus and expand the joint speaker meetings and activities to new student clubs, especially those involving minority and women students.

Membership Statistics

210 = Number of chapter members in 2019

170 = Number of ASCE National members from OSU in 2019

81% = Percentage of chapter members that are Society-level members
(Society-level/chapter members)

146 = Number of chapter members with Junior & Senior status

321 = Number of Juniors and Seniors eligible to join ASCE (CE declared
majors)

47% = Percentage of eligible Juniors and Seniors that are members (Jr &
Sr members / Jr & Sr eligible)

Meeting Statistics

12 Professional meetings with an invited speaker

10 Meetings with student presentations and/or paper(s) presented

2 Professional licensure meetings and/or ethics topics presented

1 Field trip

7 Social functions

22 Section/Branch meetings attended (total number of students)

11 Younger Members meetings attended (total number of students at field trip)

Popular Meetings and Activities

- Cookies and Clubs
- Concrete Canoe and ASCE Mixer
- Officer Retreat
- ASCE Buddies
- Transition Dinner
- OSU Engineering Expo
- Dream Big Movie
- Structural Engineering Institute
- Bowling Night
- End of Year Picnic
- ASCE vs AGC Basketball
- Leadership Development
- PNW Student Conference
- Concrete Canoe
- Meet-A-CE Day

Cookies and Clubs

The OSU College of Engineering organizes an annual club fair during September to help new students learn about the various engineering student organizations on campus. At the ASCE table, there was information about the Concrete Canoe team, and various ASCE projects.

10 Student members attended and worked the booth.



Concrete Canoe and ASCE Mixer

To recruit new members, ASCE hosted a Meet the Team mixer at the start of the school year. Team captains and executive officers were present to educate interested students about ASCE and Concrete Canoe. Pizza and snacks were provided for students.

25 Student members attended as well as our faculty advisor



Officer Retreat



The ASCE Officer Retreat was held in Sunriver, Oregon this year. The purpose of the retreat is to welcome new student officers, share plans and ideas for the upcoming school year, participate in team building activities, and have fun!

15 Officers were able to attend, along with our faculty advisor.

ASCE Buddies

ASCE Families, a mentorship program that OSU ASCE began last year was continued this year as ASCE Buddies.

The goal of ASCE Buddies is to encourage younger members to become more active in ASCE, and retain older members by keeping them involved as mentors.

This year, there were **18** total participants in ASCE Buddies.



Transition Dinner



The incoming ASCE president plans a transition dinner hosting both incoming and outgoing ASCE executive officers. The dinner allows officers to interact and have fun as a new year of ASCE management begins.

A total of **18** students attended as well as our faculty advisor and Josh Goodall, one of our practitioner advisors.

OSU Engineering Expo

The OSU Engineering Expo takes place during the Spring term. Student engineering projects are on display and presented to the professionals, students and the local community. ASCE's booth showcased the 2019 concrete canoe and various ASCE community service projects. ASCE also sold refreshments as an end of year fundraiser.

12 Student members attended, as well as our faculty advisor.



Dream Big Movie Screening

ASCE provided a screening of Dream Big, an uplifting movie about what drives engineers to create better lives for the communities they serve. ASCE also sold snacks to students as a fundraiser.

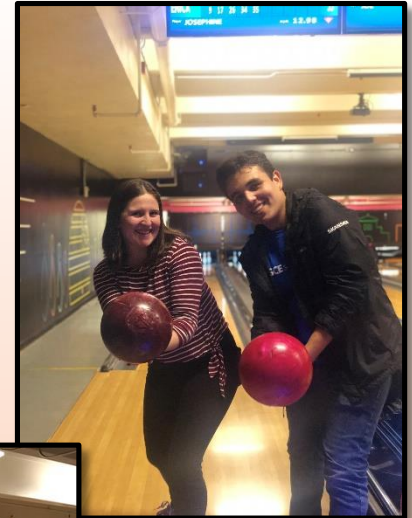
A total of **84** student members attended as well as our faculty advisor.



Bowling Night

The annual ASCE bowling night was held on campus, and included free pizza and cookies for students. The event allowed for students to take a study break before finals and get to know each other better.

30 Student members attended, as well as our faculty advisor.



End of Year Picnic

The ASCE student chapter organized a picnic for students to relax and play softball before finals. Students also got to socialize and meet new members.



12 Student members attended along with our faculty advisor and practitioner advisor.

ASCE vs AGC Basketball

OSU's ASCE and AGC chapters picked up teams and competed against each in friendly games of Basketball.

14 student members attended along with our faculty advisor.



Leadership Development

Workshop for Student Chapter Leaders (WSCL)

- Honolulu, Hawaii
- March 7-10, 2019
- Students: Madison Hall, Haley Madland, Josephine Crofoot, Rawan Al Naabi
- Faculty Advisor: Tom Miller
- Rawan Al Naabi's video **WON** the Battle of the Videos Competition!



PNW Student Conference

Held at Oregon Institute of
Technology

Klamath Falls, OR

April 11-13, 2019

35 students attended along
with our faculty advisor

Kelsey Stewart:

- Placed 1st overall in the Daniel W. Mead Prize for students

Concrete Canoe Team:

- Placed 4nd Overall



Concrete Canoe

This past year OSU's Concrete Canoe team built *Stinger* – an 18 ft long and 230 lb canoe. In order to incorporate more sustainable practices, the team used cork as an aggregate. The team also focused on improving paddling performances from previous years.

The team took 4th place overall at this year's Pacific Northwest Student Conference.

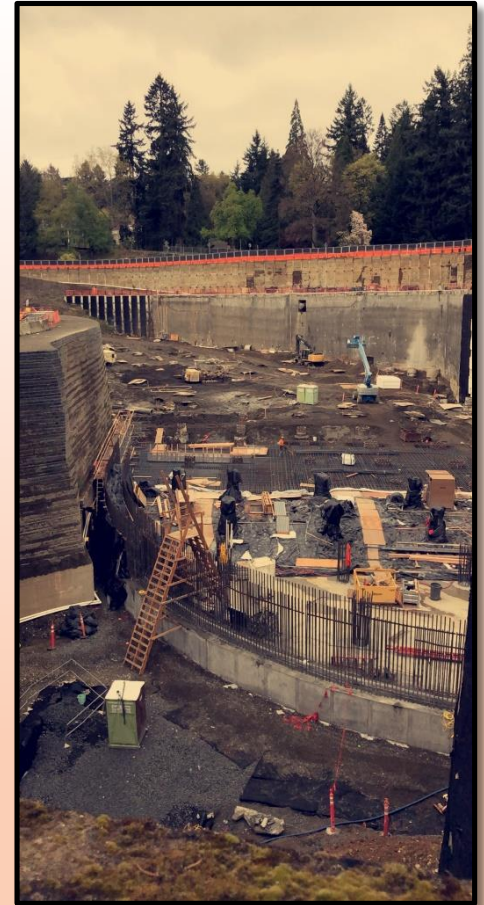
Presentation: 6th Place
Design Paper: 4th Place
Final Product: 5th Place
Races: 2nd Place



ASCE STAY Grant Field Trip

OSU ASCE-SEI received a grant from national ASCE to encourage students to stay in ASCE after graduation. A field trip to the Portland reservoir and courthouse projects with the Oregon YMF, and social time after, helped ASCE members to hear more about the benefits of ASCE and make professional contacts. Great field trip!

11 Student Members along with our faculty advisor participated



Meet-A-CE Day

Meet-A-CE Day was held this year at the Oregon Institute of Technology. Josephine Crofoot from Oregon State University was awarded the Byron Jones Scholarship, and all the students attending had the opportunity to network with practicing engineers from Portland and see OIT's facilities.

14 Student members attended, as well as our faculty advisor.



Structural Engineering Institute (SEI)

Goals:

- Expose students to a variety of structural engineering companies and career opportunities to inspire passion about the field of structural engineering.
- Connect students (especially graduate students) with professionals within the structural engineering community to build a professional network.



**STRUCTURAL
ENGINEERING
INSTITUTE**

Graduate Student Chapter

Structural Engineering Institute (SEI)

2019 Events

- STAY Grant field trip
 - Visit Portland to see water reservoir and courthouse construction.
 - Lunch and networking with professionals after the tour
- “Leaning Out” Movie Night
 - The story of the World Trade Center’s lead structural engineer, Leslie E Robertson, a man haunted by its collapse and the events of 9/11



**STRUCTURAL
ENGINEERING
INSTITUTE**

Graduate Student Chapter

Structural Engineering Institute (SEI)

Planned 2020 Events

- **Speaker Meetings**
 - Equilibrium Engineers
 - Catena Consulting Engineers
 - SEI Lecture – Don Dusenberry on the future of performance-based design
 - Broadcasted to engineering firms throughout Oregon
- **Field Trips**
 - KPFF – Site TBD
 - ASCE STAY event
 - Timbers Soccer game in Portland
 - Networking and mentorship building between professionals and students



**STRUCTURAL
ENGINEERING
INSTITUTE**

Graduate Student Chapter

Special Projects

Habitat for Humanity - Restore

ASCE/ITE Adopt-a-Highway

Jacobs/OSU Model Bridge Contest

EWB – ASCE Concrete Workshop

Food Drive & “Leaning Out”

Toy Drive

Habitat for Humanity – Restore

DESCRIPTION

ASCE student members helped with a Habitat for Humanity ReStore project. The ReStore facility is located on Philomath Blvd in Corvallis. Student members processed donations, organized, cleaned and created displays on 11/09/19.

ENGINEERING COMPONENT

Student members were exposed to different kinds of building materials like steel, wood, CMU blocks and also water and electrical equipment. While processing donations, students were able to use their judgment on what can be re-used or fixed and also discussed their thoughts with the facility workers. Students were also able to find sustainable solutions by maintaining some broken items for planting and agricultural purposes.



Habitat for Humanity - Restore

PROJECT IMPACT

ASCE student members gave back to the community and processed donations that can be used for building homes for hard working families in the community and also helped make the ReStore a great place for shopping.

PARTICIPATION

26 OSU students and the ASCE faculty advisor participated for the **100 person-hour project.**



ASCE-ITE Adopt-a-Highway

DESCRIPTION

OSU ASCE students participated with ITE students in two Adopt-a-Highway events to help clean up two miles of Hwy 34 east of Corvallis on 8/3/2019 and 10/27/2019

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.



ASCE-ITE Adopt-a-Highway

PROJECT IMPACT

This event gave students an opportunity to give back to the community and provide a clean highway to people travelling along Hwy 34.

Students from both the OSU ASCE and ITE chapters worked together as a combined OSU CCE community. The groups ate lunch together afterwards at American Dream Pizza and Baguette.

PARTICIPATION

13 students, and two of our advisors and the ITE faculty advisor, participated for approximately **50 person-hours** in the execution of the two clean-ups.

Jacobs/OSU High School Bridge Contest

DESCRIPTION:

The 50th annual contest occurred on February 23th from 7:00 AM to 3:00 PM in Owen Hall on OSU's campus. High school students competed to design the most efficient bridge based on the ratio of the load carried to the weight of the bridge.

ENGINEERING COMPONENT:

Participants learned and observed structural behavior concepts such as tension and compression and the importance of good connections and how they affect design. Design to a specification is also essential. During the event, campus tours and a presentation on CE disciplines and ASCE were provided to the attendees.



Jacobs/OSU Model Bridge Contest

PROJECT IMPACT:

The competitive atmosphere inspires students to improve from the following year. 154 bridges were tested, and the most efficient bridge carried 4,166 times its own weight of 9.7g. ASCE and Jacobs plan to expand its outreach to new high schools in 2020.

PARTICIPATION:

78 high school students and 30 teachers and parents attended. 5 Jacobs volunteers, **38** OSU student volunteers and three ASCE advisors and engineering faculty contributed **140 person-hours**. The students in Oregon State's wood design class participated as well. Students from 7 local high schools attended the event.



EWB – ASCE Concrete Workshop

DESCRIPTION

OSU ASCE students collaborated with Engineers Without Borders to host a Concrete workshop. EWB students learned the basics of proportioning and mixing concrete.

ENGINEERING COMPONENT

The students who attended the workshop are from other engineering disciplines and have minimal knowledge about concrete. The workshop was a great opportunity for them to know more about concrete and experience proportioning, understand the water-to-cement ratio, learn about the main components of a concrete mix, cast a simple concrete mix and finally cure it.



EWB – ASCE Concrete Workshop

PROJECT IMPACT

Students from other engineering disciplines at Oregon State University received training in mixing concrete to make their own planter pots and stepping stones. ASCE students presented how they use concrete to make a concrete canoe that floats and compete with other schools in the region. Friends were made in EWB that may lead to future events together.

PARTICIPATION

2 OSU ASCE student members participated for a total of 4 person-hours in the execution of the event.



Food Drive & “Leaning Out”

DESCRIPTION

In November 2019, ASCE collected cans of food for the OSU Human Services Resource Center food drive for students on campus.

ENGINEERING COMPONENT

As part of the food drive, students were encouraged to provide cans of food in exchange for tickets to the movie “Leaning Out” shown on November 26. 46 students attended the hour-long film. The film described the design and construction of the World Trade Center and other buildings designed by the legendary structural engineer, Les Robertson. It also described the impact the collapse on September 11th had on him and his family.



Food Drive & “Leaning Out”

PROJECT IMPACT

This event gave students an opportunity to provide much needed food for the OSU community. It also showed a powerful film on the technical aspects of tall building design and the ethics involved in structural engineering and in the responsibility for one's design, even in unanticipated and extreme loadings.

PARTICIPATION

4 students and our ASCE faculty advisor participated in the planning of the food drive and film. Approximately **12 person-hours** were involved in the planning and execution. **46** students attended the 1-hour film and contributed cans of food.



Toy Drive

DESCRIPTION

The student chapter hosted a toy drive during the 2019 Holiday season. Toy donations were collected and distributed to local Corvallis families who were in need.

ENGINEERING COMPONENT

It is important for engineers to give back to the communities they serve. Actively staying engaged in community relations is an important aspect of being an engineer.



Toy Drive

PROJECT IMPACT

55 pounds of toys were collected from this toy drive. The toy donations were given to the Oregon State University Family Resources Center in time for Christmas.

PARTICIPATION

10 students and our faculty advisor participated in the planning and execution of the Toy Drive. Approximately 13 person-hours were involved.



Summary and Questions

Significant Events:

- STAY Grant Field Trip
- Dream Big Movie Night

Significant Challenges:

- Recruitment of freshmen and sophomores
- Increasing community outreach
- Build space for concrete canoe

