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# Oregon State University

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ANNUAL REPORT 2021  
AMERICAN SOCIETY OF CIVIL ENGINEERS  
STUDENT CHAPTER

# Contact Information

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*Oregon State University ASCE Student Chapter  
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# Executive Officers

April 2020 – March 2021



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# Executive Officers

April 2021 – March 2022



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# Advisors

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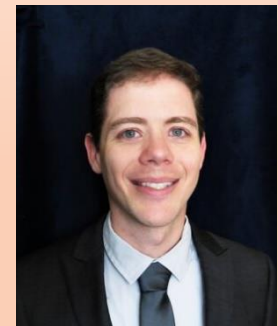
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# Chapter Recognition

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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, 2020) 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 and 2021)

Richard J. Scranton Outstanding Community Service Award (2014) & Finalist (2016)

# Mission Statement

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“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.”



# Goals and Objectives

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1. Have 75% of Student Members Registered as 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 Registered as National ASCE Members

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## **Detailed Description of Goal:**

Have 75% of our student chapter members hold and maintain national ASCE membership.

## **Action Plan:**

In 2021 we will continue focusing on reaching out to underclassmen and informing them of the benefits and opportunities of an ASCE membership. Attending OSU's Cookies and Clubs Event and Beaver Community Fair will be helpful with this effort.

# Have 75% of Student Members Registered as National ASCE Members

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## **Assessment: Did not achieve**

Total student chapter membership in 2021 was 271 and national student membership was 93, 34% of the chapter membership.

## **Follow-up:**

Encourage faculty members to promote student clubs more in their classes. Hold a freshmen BBQ early in fall term. The student chapter's member registration form was modified and simplified in 2021. We will continue to see additional members from that change in the process. Extra efforts will be made to recruit graduate students through SEI activities, many who come to OSU as Student Members.

# Complete 8 Service Projects

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## **Detailed Description of Goal:**

Perform 8 community service projects and outreach efforts.

## **Action Plan:**

Increase the total number of both 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

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## **Assessment: Did not achieve**

4 projects were completed by ASCE in 2021: Three Bioswales and Riparian Clean-up projects and an Adopt-a-Highway project.

## **Follow-up:**

Due to COVID-19, the chapter was unable to meet our 8-service project goal. Student hesitancy to work with others continued. The ASCE student chapter will continue actively working to plan and perform service projects with OSU's sustainability office, ITE, AGC and other student groups on campus. We are working on possible projects with Bridges to Prosperity and Engineers without Borders. Fundraising efforts will begin at our 100-year Anniversary Celebration.

# Qualify Concrete Canoe Team for Nationals

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## **Detailed Description of Goal:**

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

## **Action Plan:**

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

# Qualify Concrete Canoe Team for Nationals

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## **Assessment: Did not achieve**

The team competed at the Pacific Northwest Student Conference held virtually in 2021, but unfortunately did not place.

## **Follow-up:**

The concrete canoe team will focus on rebuilding the team after a year of virtual learning due to COVID-19, maintaining involvement while refining the concrete mix and hull design. Strive to have a competitive canoe in what will hopefully be an in-person contest again. Start earlier by electing officers right after the PNW student symposium.

# 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 during COVID. In 2020, 13 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 maintained by the VP to better manage speaker meetings.



# Host at least 12 Speaker Meetings



## **Assessment: Achieved**

17 speaker meetings/joint speaker meetings were held during 2021 (including ethics topics and jointly-sponsored meetings). Despite the pandemic, companies were very willing to speak virtually through Zoom.

## **Follow-up:**

Maintain the quality of meetings and increase the variety of disciplines involved even more. We will invite speakers to speak both in-person, virtually and hybrid about current projects and opportunities with their firms. Continue refreshments and gift cards to encourage attendance. Encourage faculty to promote meetings.

# Earn National Recognition for Annual Report

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## **Detailed Description of Goal:**

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

## **Action Plan:**

The Secretary will maintain the membership roster and collection of activity and project reports throughout the year. 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

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## **Assessment: Exceeded**

Earned the 2021 Region 8 Distinguished Chapter Award for the 2020 annual report.

## **Follow-up:**

We will continue to improve the recording of activities during the year by using the new ASCE Annual Report Portal. Expand community service efforts by including students who are not involved in ASCE in other ways. Work to overcome student hesitancy to get involved due to COVID. Strive to include freshmen and sophomores more in meetings, social events and teams.

# Hold 7 Joint Events with other Clubs on Campus

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## **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 oSTEM. These activities will broaden perspectives for out current and future members.

# Hold 7 Joint Events with other Clubs on Campus



## **Assessment: Achieved**

The chapter had 9 joint activities with AGC, ITE, AISC, EERI, and oSTEM, including speaker meetings and community service projects.

## **Follow-up:**

The continuing goal is to work with many student groups on campus and expand the joint speaker meetings and activities to new student clubs, especially those involving minority and women students. Seek to join the groups in some of their social activities that are especially successful for freshmen and sophomores.

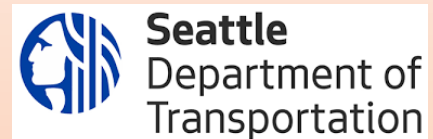
# Popular Meetings and Activities

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- Speaker Meetings
- Concrete Canoe
- Structural Engineering Institute
- Cookies and Clubs
- Beaver Community Fair
- Among Us Social Night
- Field Trip to Hoover Elementary
- ASCE YMF/University Mixer Event
- ASCE General Body Meetings

# Speaker Meetings

OSU ASCE organizes numerous speaker meetings with civil engineering firms and government agencies for students to attend! These speaker meetings allow companies to showcase their latest projects and technologies, while also allowing for student networking opportunities. Some companies that participated included Seattle DOT, AKS Engineering, Kittelson & Associates, Kiewit, Quincy Engineering, and ODOT.





# Concrete Canoe

This year's concrete canoe team was back in person and is being led by a new captain, Daisy Mulligan. After a quiet pandemic year, an emphasis was placed on recruitment. The team is filled with new faces and energy and is ready to compete at the regional competition in-person. Fall quarter was filled with hull design to create the mold needed for the canoe, mix design using many of the same aggregates and materials as in 2019, and finishing the 2019 canoe for practice. The team remains careful to observe COVID-19 protocol, has a renewed emphasis on safety in the build space, and hopes that this year can be a return to success at UBC for the team.

## Materials

- Replacement of Expanded Glass: Exfoliated Vermiculite
  - Comes in a variety of densities and strengths
- Cork used extensively as aggregate
  - Graded by graduated sieves
  - Recycled product from local producers
- Compressive strength of 1000 psi to meet safety
- Slump close to zero



## Hull Design

- Building off of the previous year
- Added mass to the bottom of the hull
- Aiming for stability, without sacrificing speed
- 20' long
- 24" maximum width
  - 1" wider than last year for increased stability



# 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.

## 2021 Events

- Speaker Meetings:
  - DCI Engineers– Jointly hosted with EERI GSC
  - ASCE SEI Standard Talk funded by SEI Future Funds and ASCE Foundation
- Officer Meetings
- SEI Coffee Hour
- Structures Graduate Info Session (featuring current graduate students)
- Q & A Session (featuring current structures grad students)



**STRUCTURAL  
ENGINEERING  
INSTITUTE**

**Graduate Student Chapter**

# Cookies and Clubs

The OSU Cookies and Clubs fair takes place during the beginning of Fall term. 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. Due to COVID-19, Cookies and Clubs was held virtually last year. We were excited to attend in person again!

At least 95 students visited our booth.

Additionally, 4 student members worked the booth.





# Beaver Community Fair



The OSU Beaver Community Fair takes place during the beginning of Fall term. The Beaver Community Fair draws together the OSU and greater Corvallis communities to celebrate the start of the academic year. It is a great way to boost club visibility and interact with the public. At the ASCE table, there was information about the Concrete Canoe team, Steel Bridge team, and various other ASCE projects.

At least **25** students visited our booth.

Additionally, **6** student member worked the booth.

# Among Us Social Night

OSU ASCE organizes social events focused on giving student members the opportunity to interact and mingle in a relaxed setting. OSU ASCE social chairs organized a social night in which student members played the popular online game “Among Us” over Zoom.





# Field Trip to Hoover Elementary

On April 8<sup>th</sup>, 2021, 12 students attended a virtual tour with Fortis Construction of the Hoover Elementary Construction site located in Corvallis, Oregon. This event was hosted jointly with the OSU AISC student chapter. Members had the opportunity to learn about ongoing construction and how COVID-19 influenced operations.



# ASCE YMF/University Mixer Event

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On May 20th, 2021, student members attended a YMF/University Mixer event hosted by the ASCE Seattle Section. Due to COVID-19, the event was held virtually. It was a great opportunity to meet other professionals and students from other universities.





# ASCE General Body Meetings



While ASCE general body meetings are usually in person, our chapter had to adapt to the online world.

Officers ran Zoom general body meetings, with games and incentives like small prizes for participants. OSU ASCE officers created Kahoot! Quizzes on our chapter's history as well as general ASCE facts were very popular.

Upon returning to campus in the Fall, OSU ASCE resumed holding general body meetings in-person. OSU ASCE officers created games such as Bingo to encourage interactions and friendships. Members expressed that they were happy to meet again in-person.



# Cancelled Meetings

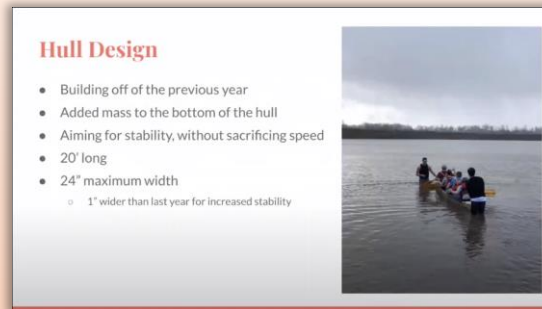
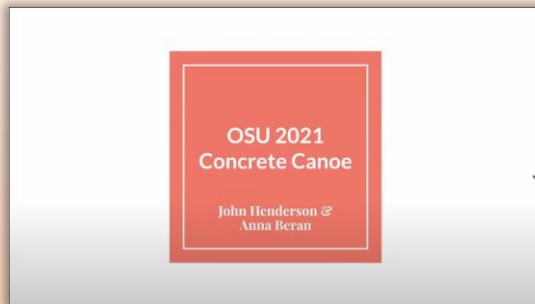
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COVID-19 prevented OSU ASCE from executing many of our plans for the 2021 year. Some additional activities we would have in a normal year would be:

- Toy Drive
- Bowling night
- End of Year Picnic
- ASCE buddies
- Movie Viewing
- Meet-A-CE Day
- Officer Retreat

Despite the pandemic; however, OSU ASCE has continued to stay connected through platforms such as Canvas and Zoom.

# 2021 Pacific Northwest Student Conference



The Region 8 conference was hosted virtually by the University of Washington in 2021. Anna Nelson competed in the Mead paper competition. The concrete canoe team presented an oral report about canoe design and responding to the competition's request for proposal.

# Community Service Projects

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- Bioswales and Riparian Volunteer Clean-Up (ASCE/OSU Sustainability Office)
- Adopt-a-Highway (ASCE/ITE)
- Bioswales Clean-Up (ASCE/oSTEM)

# Bioswales and Riparian Volunteer Clean-up (ASCE/OSU Sustainability Office)



## DESCRIPTION

ASCE student members helped the OSU Sustainability Office and Landscaping Department clean up bioswales on campus. We removed weeds, dead plants, and invasive species. Students were exposed to the different type of invasive species, like blackberry bushes, and basic garden maintenance skills.



# Bioswales and Riparian Volunteer Clean-up (ASCE/OSU Sustainability Office)

## PROJECT IMPACT

Recently the OSU Landscaping Department has been experiencing a staffing shortage. As a result, bioswales and riparian zones on campus are in need of maintenance. ASCE student members were able to lend a hand and give back to the OSU community while also helping to maintain the local environment.

## PARTICIPATION

7 ASCE members and 2 Sustainability Office employees participated for approximately 27 person-hours in the execution of this clean-up.



# Adopt a Highway (ASCE/ITE)

## DESCRIPTION:

OSU ASCE students participated with the ITE student chapter in two Adopt-a-Highway events to help clean up two miles of Hwy 34 east of Corvallis on 11/6/21.

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 (ASCE/ITE)

## 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 had lunch together afterwards at Chipotle.

## PARTICIPATION:

**18** students participated for approximately **54** person-hours in the execution of this clean-up.



# Bioswales Clean Up (ASCE/oSTEM)

## DESCRIPTION

OSU ASCE students participated with oSTEM students in a clean-up of bioswales on the OSU campus. We removed weeds, invasive species, and litter. Bioswales are important for stormwater management, so ASCE students took special care to ensure that inlet channels and pipes were cleared.





# Bioswales Clean Up (ASCE/oSTEM)



## PROJECT IMPACT

This event gave students the opportunity to give back to the OSU community and maintain the local environment. By helping with this clean up ASCE students were able to assist in preserving local stormwater run-off systems and gain exposure to different types of invasive species and basic garden maintenance skills. The groups had lunch together afterwards at Chipotle.

## PARTICIPATION

12 students participated for approximately 30 person-hours in the execution of this clean-up.

# Summary and Questions

## Significant Events:

- Large Number of Guest Speakers
- Field Trip To Hoover Elementary
- Sponsored ASCE-SEI Standard Talk
- Environmental Focus on Projects



## Significant Challenges:

- Recruitment of freshmen and sophomores
- Rebounding from COVID for Concrete Canoe Team
- Active participation of members with COVID considerations still present