U.S. National Chemistry Olympiad (USNCO)
What is the USNCO?

- A multi-tier competition for high school students
- Goal: encourage excellence in chemistry
- Roughly 16,000 students participate each year
- Team USA competes at the International Chemistry Olympiad

Photo Credit: M Barranger-Mathys
What Can Students Gain?

- 4 - competition abroad during the International Chemistry Olympiad
- 20 - two weeks of training in chemistry during a Study Camp
- 50 - recognized as earning high honors on the national exam
- 100 - recognized as earning honors on the national exam
- 1,000 - nominated to take the national exam
- 16,000 - the chance to compete for any of the honors above

- Participation in USNCO looks great on college applications!
- Many Local Sections award their highest scoring students
What is the Process?

• First Round Goals
  – Include as many students as feasible
  – Select 10 - 20 students for the national exam

• Options include
  – Local Section Exam: use ACS or write your own
  – Teacher nominations
What’s Next?

• Second round, National Exam
  – 60 multiple choice questions
  – 8 short answer questions
  – 2 laboratory practicals
• 20 student Study Camp
  – Four students selected for Team USA
Who is Eligible?

- First round: anyone!
- National Exam:
  - Two students max per high school
  - U.S. Citizens or Green Card holders
  - High school students
  - Graduating no earlier than spring of the same year
  - Under the 20 years of age on the first of July

Photo Credit: Peter Cutts/ACS
What Can Teachers Do?

- Find your local coordinator
- Coordinate exams or assist others
- Recruit students
- Print posters
- Prepare students, all old exams online
- Apply to be a HS mentor
- Contact USNCO@acs.org
• **SEED** – Summer Experiences for the Economically Disadvantaged

• Offers paid, hands-on, research opportunities for high school students from low-income households

• Offers one-year and renewable scholarships for **30+** students each year

• **Over 400** students across the U.S. participate each year, **over 11,000** participants since the program’s inception

• **Over 500** people volunteer to serve as coordinators, mentors, or additional support for the many sites across the U.S. and U.S. territories each year

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http://www.acs.org/projectseed
How do the sites operate?

- Universities, companies, or ACS Local Sections submit project proposals to the ACS Project SEED office
- The Committee on Project SEED evaluates each project for safety and meaningful chemistry-related research
- Approved sites recruit local students to participate on their approved projects
- Sites design their own summer programs. Students not only do research, but can participate in social activities, writing workshops to prepare college essays, learn about career paths in chemistry, and more!

Project SEED students, Victoria Chaparro and Lucia Seide at Northeastern University.
Photo Credit: Penny Beuning

Project SEED student, Sophia Cornish at North Carolina State University.
Photo Credit: Caroline Proul

http://www.acs.org/projectseed
Student Eligibility Criteria

- Student must be enrolled in high school
- Student must have taken at least one chemistry course
- Student’s family must qualify as low-income (200% of Federal Poverty Guideline for family size)
- A SEED program must be available in your location (check the website)

Project SEED student, Adriana Sanchez at the University of San Diego working on a microwave reactor.

Photo Credit: Christopher Daley

http://www.acs.org/projectseed
Who Participates?

- 454 students across the US and US territories participated in 2019
- 62.7% female, 37.1% male, 0.2% non-binary or other
- 96% of students would recommend the program to a friend
- 86% intend to attend a 4-year college

http://www.acs.org/projectseed
Application Process

1. Check to see if there is a site operating near you
2. Submit an online application
   a) An unofficial transcript, resume, letter of recommendation, or essay question responses may be required, depending on the site
3. You may be asked to do an on-site or video interview
4. If chosen, you’ll be paired with a research mentor to work in the lab

Photo Credit: Maris Kamalu

https://www.acs.org/content/acs/en/education/students/highschool/seed(locations.html
What to Expect

• Students are responsible for securing transportation to and from the lab
• Students are expected to work ~40 hours per week (ie. 9am to 5pm daily)
  • Modified schedules can be worked out with your research mentor and coordinator
• Internships last anywhere from 6 to 10 weeks
• Students commonly prepare a research poster at the end to present either at a regional or local poster session, national ACS meeting, or other setting
• Students are paid
  • $3,200 for first-time participating students
  • $3,800 for returning students

https://www.acs.org/content/acs/en/education/students/highschool/seed/locations.html

Photo Credit: Jerome Pollos Photography
Student Benefits

• Paid work for 8-10 weeks of participation ($3,200 for the first summer, and $3,800 if they opt to return for another summer)

• Meaningful research opportunities and exposure to chemistry-related fields

• Mentoring and coaching opportunities to prepare for college

• Opportunity to present research at a poster session

• Opportunity to apply for Project SEED Scholarships if pursuing a chemistry-related degree
If you have any additional questions, contact...

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• Project SEED Office – Projectseed@acs.org

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