Since 1985, Oregon MESA, a program of Portland State University, has invested in the potential of diverse young people. Oregon students lag behind other states in academic performance, especially in the science, technology, engineering, and math (STEM) fields. Oregon MESA strives towards a future where all students – no matter race, economic status, or zip code – can have the opportunity and preparation to enter the innovation economy. Oregon MESA is the only adaptable and prototype-driven math, engineering, and science program for traditionally underrepresented students that takes an ecosystems approach to education, involving schools, families, businesses and mentors to empower the technology-based workforce of the future.

Oregon MESA doesn’t just increase the number of minority and low income students graduating from high school. It increases the number of minority and low-income students who graduate, enroll in post-secondary education programs and enter the workforce equipped with STEM, 21st century, and invention skills.

**STUDENTS**

Oregon MESA enables students from underrepresented backgrounds to gain math, engineering, and science skills through hands-on, real-world invention education.

**Did you know?**

Children spend less than 20% of their waking hours in school. Afterschool STEM can almost double the amount of time some students have to question, tinker, learn, and explore STEM topics and careers.

**EDUCATORS**

Oregon MESA equips educators with cutting-edge curriculum for invention education, and creates innovators in and out of the classroom.

**ECOSYSTEM**

Industry partners and parents are a key part of the MESA support system, providing mentorship, confidence, and encouragement to pursue a promising future in high-wage fields.

3 PILLARS

www.oregonmesa.org
Educators gain valuable skills and support in providing equity-based STEM instruction in a fun, hands-on, collaborative setting. MESA offers teachers:

- Valuable practice implementing facilitated learning with diverse, underserved students that focuses on student-led learning, problem-solving, and critical thinking
- Training opportunities that support individual teacher growth, provide access to hands-on curriculum, and offer strategies to incorporate engineering-focused opportunities within day-to-day practices.
- A collaborative cohort of teachers and ongoing learning opportunities that help educators successfully apply instructional material in exciting and inclusive ways that increase peer support and cooperation.

“"I use this process regularly in my science classroom. It has transformed the way that I tackle engineering design projects... MESA has helped me gain confidence in teaching both engineering and computer science.”

Kerryn Henderson, Advisor

Students involved in MESA have a greater sense of belonging, better outcomes and higher confidence.

According to a 2019 study, MESA students are more likely to graduate from high school in four years compared with their peers who do not participate in MESA.

MESA students 4-year graduation rate

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MESA students</td>
<td>87%</td>
</tr>
<tr>
<td>Comparison</td>
<td>73%</td>
</tr>
<tr>
<td>group 4-year</td>
<td></td>
</tr>
<tr>
<td>graduation rate</td>
<td></td>
</tr>
</tbody>
</table>

Most MESA advisors felt they advanced the skills of their students

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>STEM knowledge</td>
<td>97%</td>
</tr>
<tr>
<td>Invention skills</td>
<td>93%</td>
</tr>
<tr>
<td>Social emotional skills</td>
<td>90%</td>
</tr>
<tr>
<td>21st century skills</td>
<td>86%</td>
</tr>
</tbody>
</table>
Oregon MESA creates an ecosystem of hundreds of students, teachers, families, companies, and volunteers, all focused on improving the diversity of the tech-based workforce and helping underrepresented students excel in math, engineering, and science.

- Businesses and volunteers provide mentorship and education to students who will make up the diverse and talented workforce of the future.
- Family engagement programs extend the reach of MESA into the home.
- Regional centers increase access to community resources

Oregon MESA engages hundreds of volunteers from our partner organizations, which include:

- Centro Cultural de Washington County
- Intel
- The Lemelson Foundation
- Oregon TECH

MESA THROUGH THE YEAR

Oregon MESA is a program of Portland State University, and our mission is to provide students underrepresented in the fields of mathematics, engineering, science, and technology with the skills, knowledge, and opportunities to develop their talents, explore technology-based careers, enter college, and compete successfully in the workforce.

<table>
<thead>
<tr>
<th>Summer</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educator Training</td>
<td>Family Nights</td>
<td>College and Career Visits</td>
<td>MESA Day (May)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>National Competition (June)</td>
</tr>
</tbody>
</table>
The MESA Schools Program teaches STEM, invention, and 21st-century skills to historically underrepresented students. We overcome barriers to access by providing our program at no cost, offering it at the schools where our students are enrolled, and engaging parents directly in the success of their child. Teachers within the school are trained in the MESA curriculum that is aligned with the Next Generation Science Standards (NGSS) engineering standards. Throughout the school year, they serve as MESA advisors to students and meet during weekly, one-hour chapter meetings.

Schools with MESA programs offer expanded opportunities for all students to engage in math, engineering, and science learning and have a higher rate of teacher retention.

MESA advisers have access to cutting-edge curriculum for invention education.

Students involved in MESA have a greater sense of belonging, better outcomes and higher confidence.

“My experience in MESA has given me a new perspective on the world: I empathize more easily and I can problem-solve more quickly. MESA has given me so many amazing opportunities to learn and grow and I am grateful for all of them.”

Jaime Fields, Student

Learn more about how your school can connect with Oregon MESA at [www.oregonmesa.org](http://www.oregonmesa.org)

---

**DEMOGRAPHICS**

88% of MESA students* are underrepresented in at least one category in STEM

**GENDER**

- 54% Male
- 43% Female
- 3% Did not report
- <1% Non-binary

**RACE**

- 60% Students of color
- 32% Caucasian
- 8% Did not report

**LOW INCOME**

- 46% Yes
- 39% No
- 17% Did not report

*Qualifies for Free/Reduced lunch

*based on 2018-19 enrollment