

# Mission Statement Revisions



**Trustee Fred Ziari**  
**President Nagi Naganathan**

Higher Education Coordinating Commission Meeting: August 8, 2019

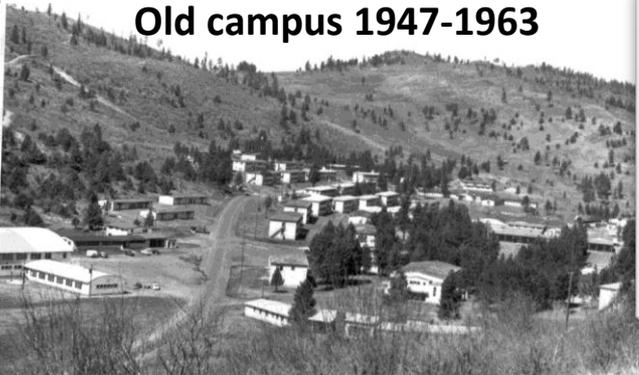
# Oregon Tech History

## Oregon Technical Institute

**1947:**

Founded to serve  
Veterans

**Old campus 1947-1963**



## Oregon Institute of Technology

**1966:**

First Bachelor's  
degrees offered



## Programs began in Portland area

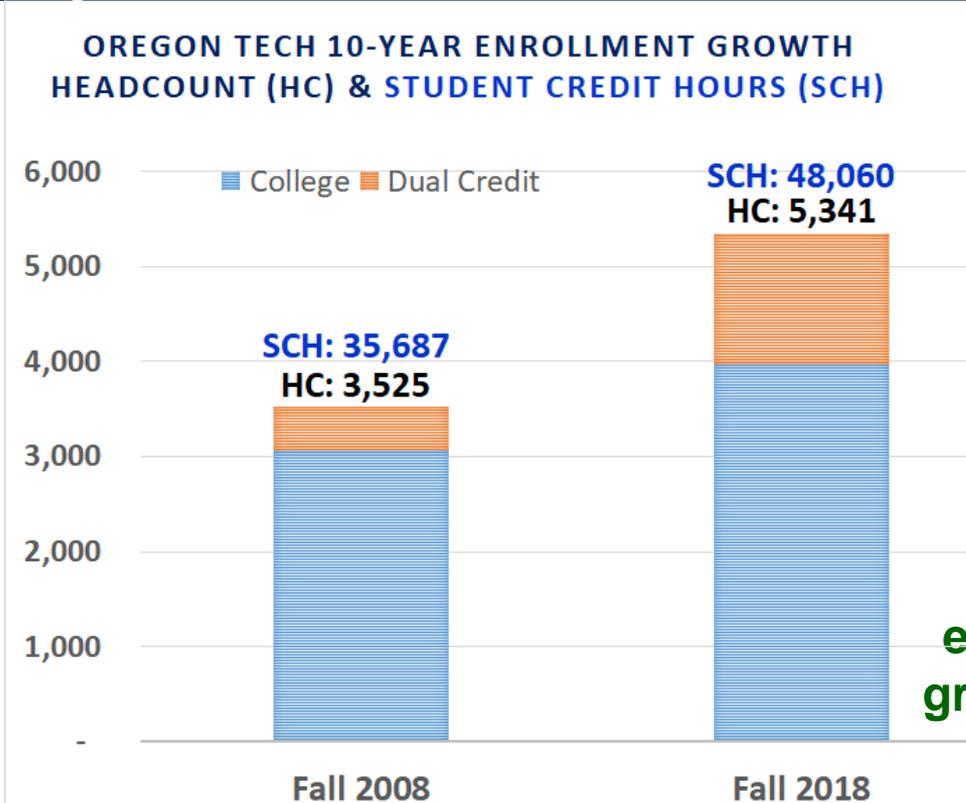
**1995:**

First Master's  
degrees offered

**Current campus opened  
1964**



# Growth expanding pipeline of highly skilled workforce



## Degrees

- 39 Bachelor's
- 7 Master's
- 5 Associate

750 to 800+ degrees awarded each year.

10-year enrollment growth: 52%



# Proud of our Student Success Metrics

## High Rankings Mark Our Profile

[www.bestcolleges.com](http://www.bestcolleges.com)  
Oregon Tech earned the top spot based on data hosted by the National Center for Education Statistics

**#1**  
Best Online College  
in Oregon

**#1**  
Highest ROI in  
Pacific Northwest

**#1**  
Top Public West  
Regional Colleges

US News and World Report  
Oregon Tech also ranked:  
#3 overall in the same category  
out inclusive of private schools as well  
#38 nationally for Best Engineering Programs  
#5 Best West Colleges for Veterans

PayScale  
Ranked #1 in Oregon for Annual Return  
on Investment for graduates

**HIGHEST**  
Post-Graduate  
Salaries in Oregon

SmartAsset  
Oregon Tech earned the top spot in this survey on research by the National Center for Education Statistics, PayScale, and College InSight

**#2**  
TOP  
2019  
PUBLIC WEST REGIONAL COLLEGE  
U.S. NEWS AND WORLD REPORT

**#35**  
BEST ENGINEERING PROGRAMS  
2019  
U.S. NEWS AND WORLD REPORT

**\$60K**  
PER YEAR  
AVERAGE STARTING SALARY  
FOR OREGON TECH GRADUATES

**97%**  
EMPLOYED  
OR ENROLLED IN GRADUATE SCHOOL  
WITHIN 6 MONTHS AFTER GRADUATING



**Oregon TECH**  
Oregon Institute of Technology

PRODUCED BY THE OREGON BUSINESS MARKETING DEPARTMENT



Medical laboratory science (above) and manufacturing engineering (left) are among the curricula available at Oregon Tech.

## Oregon Tech: Industry's University

How closing the industry-academia gap strengthens education, innovation & Oregon

In an economy defined by exponential change, how can industries and students prepare for the yet-to-be imagined landscape of tomorrow? Oregon Institute of Technology's purpose-driven approach finds a symbiotic new polytechnic paradigm in which industry and academia come together for future-proof success.

As one of Oregon's seven public universities with bachelor's and master's programs across its multiple campuses — Klamath Falls, Portland-Metro and online — Oregon Institute of Technology ("Oregon Tech") embraces its role as "industry's university."

"Defining ourselves as industry's univer-

sity is about meeting the needs of society as a whole," Dr. Lisa Graham explains, vice president of Analytics Engineering at Seeg, and chair of the university's Board of Trustees. "In many ways, an educational system that is good for industry is also good for students and society. Oregon Tech provides opportunities to our students that we know industry values, and which are aligned with what students are passionate about too."

The launch of its Board of Trustees in 2014 and the arrival of president Dr. Nagi Naganathan in 2017 reinvigorated the university's commitment to industry collaboration in education and applied research.



Dr. Nagi Naganathan

"Compartmentalized, one-dimensional thinking isn't relevant going forward," Dr. Naganathan says. "I believe in professional

programs where universities work closely with industry in developing content that is relevant to practice. Each academic program at Oregon Tech has its own industry advisory board who work with faculty regularly to ensure relevant curricula, as needs change over time."

Being industry-centric, Oregon Tech's main goal is to produce future-proof professionals who can adapt and excel in a landscape defined by digitalization, new technologies and intersecting fields — whatever that looks like.

"When I graduated in the late '70s as a mechanical engineer, I was expected to be good at math sciences, gears and a pulley," Dr. Naganathan says. "Today, graduates need to have more of a holistic outlook. We want our graduates to learn to integrate their major's with complementary skillsets in project management, communication, leadership, innovation and entrepreneurship, so they will always have a relevant, high-value degree to be successful in a diverse workplace. Our graduates must be ready not just for their careers, but for life."

"Because it's so multidisciplinary and flexible, an Oregon Tech degree is a jumping off point into anything," Dr. Graham says. "Some industries will disappear, new ones will pop up, but we are teaching people how to adapt and succeed in an ever-changing economy."

One report co-published by Dell Technologies estimates that 85 percent of the jobs of 2030 do not exist yet. Preparing students for an unknown job market requires re-shaping styles of teaching, and the role of reinvention within the curricula.

A hands-on, project-based applied learning enterprise from its very beginning more than 70 years ago, Oregon Tech takes industry collaboration to the next level. Whereas academia often emphasizes faculty-initiated research projects ("inside-out"), Oregon Tech conducts industry-driven R&D ("outside-in") based on companies' needs, immediately applied "on the floor" to improve an organization's products and approaches.

Today, the school's graduates work with an impressive list of well-known industry allies, including Intel, HP, Microsoft, Nike, Amazon, JELD-WEN, Boeing, Providence Health & Services, and Kaiser Permanente, among others.

"As industry's university, as a polytechnic, it's more than having career-ready professionals," Dr. Naganathan says. "We have to be the surrogate labs for industries and their innovation ecosystems, and be progressive in managing the resulting intel-

### A Unique Niche: Industry's University

Oregon Tech's polytechnic model:

- Prepares distinctive, career-ready professionals
  - Serves as a surrogate lab for industry R&D
  - Offers innovative practice-based degree programs taught by industry-savvy faculty
  - Fosters industry-friendly intellectual property protocols favoring outside-in applied research
- This produces high returns all around:
- Oregon Tech enrollment has grown more than 90% in the last decade, because it commands some of the highest returns on investment:
    - Average starting salaries of \$60,000 on average for graduates
    - Job or graduate school placement rate of 97% within six months of completing degree.

lectual property."

This exchange gives industry members access to faculty, and to student researchers who later become ideal recruits requiring little onboarding, working with industry in advanced technologies on actual commercial projects.

Oregon Tech is also a member and the host university for the Oregon Manufacturing Innovation Center R&D (OMIC R&D) — initiated by Boeing and built on partnership's between manufacturing, higher

education and government. Developed to strengthen and grow manufacturing in Oregon and the region, OMIC R&D gives faculty and students the opportunity to work on real-world applied research projects with a growing list of local, national and international industries.

Last year, Oregon Tech established a community clinic in Hamath Falls that treats children on the autism spectrum and with other developmental needs. Oregon Tech's faculty provide much-needed therapeutic services in this rural community, while their behavior analysis students train as therapists. Nearby, the university's Oregon Renewable Energy Center secures grants and contracts to solve energy issues, on a unique campus that uses a combination of "off-grid" solar and geo-thermal energy to supply the bulk of its power needs.

The design of Oregon Tech's new engineering complex in Klamath Falls hints at the school's values. Set to break ground this summer, it will facilitate collaboration and interdisciplinary work among students, with clear lab walls and maker spaces that promote innovation, risk-taking and entrepreneurship.

So, how can industry and academia prepare for a future landscape they cannot imagine yet? Through true symbiosis built on constant dialogue and recalibration. When executed well, everyone wins — students, universities, companies, Oregonians and the world — today and tomorrow... whatever it holds. And Oregon Tech is determined to be a global polytechnic university leading the way. ■



Oregon Tech trains students to be prepared not just for their careers but for their whole lives.

# Oregon TECH

Oregon Institute of Technology

# Oregon Business Magazine: June '19 issue

# Board of Trustees Approved Mission Statement Revisions

*Oregon Institute of Technology*, an (“**Oregon Tech**”), Oregon’s public **polytechnic** university, offers innovative ~~and rigorous~~ **applied, professionally-focused undergraduate and graduate**-degree programs in the areas of engineering, ~~engineering technologies,~~ health ~~technologies,~~ **management business, technology,** and ~~the~~ **applied** arts and sciences. To foster student and graduate success, the university provides ~~an intimate~~ a hands-on, **project-based** learning environment ~~focusing on application of theory to practice~~ **and emphasizes innovation, scholarship, and applied research,**. **With a commitment to diversity and leadership development,** Oregon Tech offers statewide educational opportunities ~~for the~~ **and technical expertise to meet current and** emerging needs of Oregonians ~~and provides information and technical expertise to state,~~ **as well as other** national and international constituents.

# Stakeholder Consultation

- DHM Research [400 Oregonians (ages 18 to 54) outside the university and ~300 students]
- Faculty Senate
- Associated Students of Oregon Institute of Technology (ASOIT)
- Administrative Council
- Alumni and Foundation Boards
- Executive Staff
- Strategic Planning Steering Committee

# We are a polytechnic university!

‘Oregon’s public **polytechnic** university ... offers innovative, **and rigorous applied... professionally focused undergraduate and graduate** degree programs...’

Polytechnics are focused on professional practice

Describes Oregon Tech’s teaching and learning approach

We are not the 1940’s technical school we were founded as; our outcomes have scaled up.

# And this is what our current technology offerings mean...

... engineering, ~~engineering technologies~~, health ~~technologies~~, ~~management business~~, technology, and ~~the~~ **applied** arts and sciences.

“Technologies” is implicit within applied engineering programs

... “**applied arts and sciences**” clarifies degree focus, program modalities (e.g., applied behavior analysis, population health management, etc)

Replaced “**management**” with “**business**” for market clarification

# For example...



## Cyber Security Bachelor's Degree

- Approved by HECC & NWCCU April & May 2019
- Program begins Fall 2019 in K-Falls and Portland-Metro Campuses



## Master's in Renewable Energy

Approval from NWCCU to offer the MS in Renewable Energy in Klamath Falls; already at Portland-Metro campus



## Bachelor's in Data Science

Developed based on market demand, tie-in to other degree program – approval phase



## Doctoral Program in Physical Therapy

Coordinating with OHSU – design stage

# How do we teach & learn?

...~~an intimate~~ a hands-on, **project-based** learning environment and emphasizes innovation, scholarship, and applied research, ~~focusing on application of theory to practice.~~”

Project-based replaces “intimate” and “theory to practice”, eliminates ambiguity

Innovation and applied research growing focus of programs, including outside-in research for industry, Catalyze/InventOR program, new engineering and technology facility designed with maker-spaces, and OMIC R&D.

# Seeing through Fog



**Scott Prahl, Ph.D.**

Professor  
Optical, Electrical &  
Renewable Engineering

# Only undergraduate Optics program in Northwest

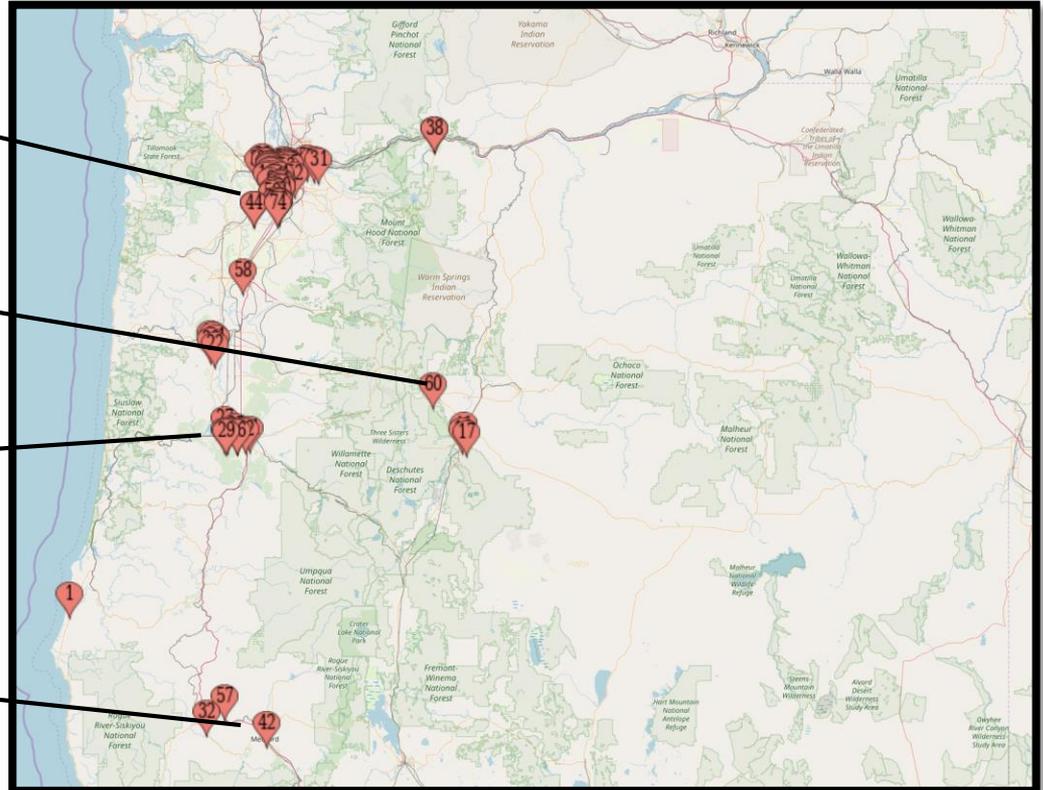


# ~110 Oregon companies need Talent in Optics



nano**metrics**

MLD **TECHNOLOGIES**



# Daylight Fog



## Industry Partners

Kerr Avionics

Collins Aerospace

## Grant Partner

Oregon BEST

# Who wants to land in fog?



Commercial  
airliners -  
**fuel**



Rescue –  
**time**



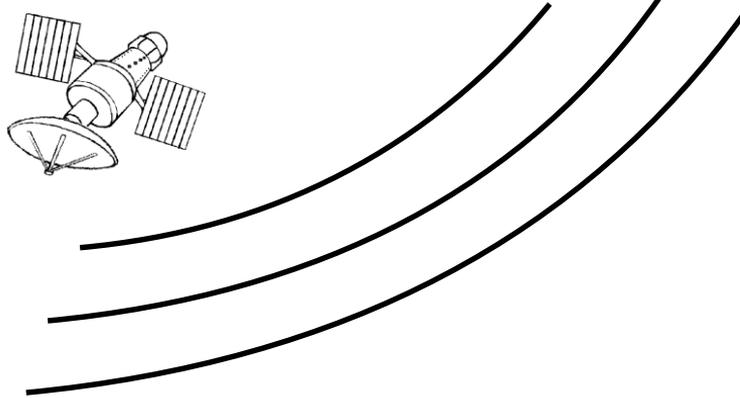
Overnight  
delivery -  
**time**



Military -  
**advantage**

# Innovation at work

## GPS Satellite Sync



## Camera in Plane



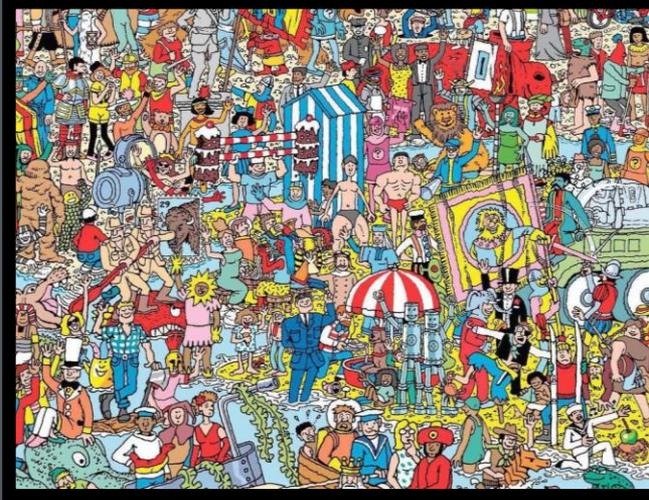
○ **Blinking LED**



# Innovation at work

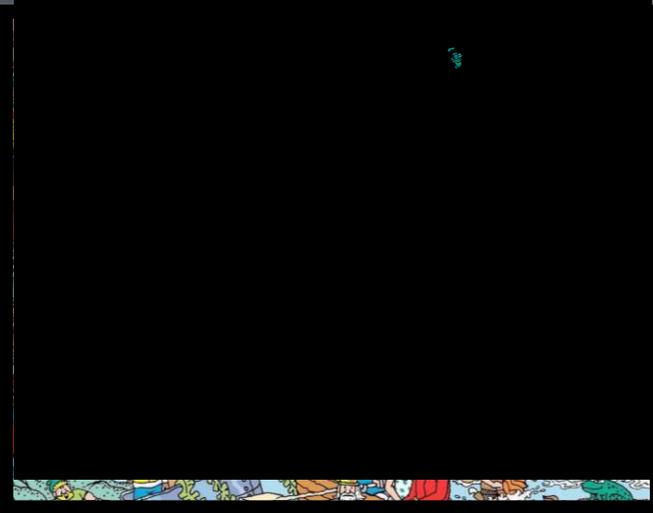


Picture with Waldo

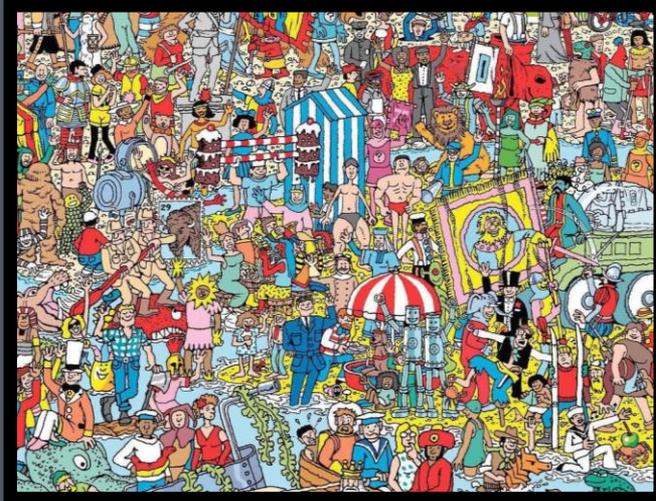


Picture without Waldo

# Innovation at work



Picture ~~with~~ Waldo

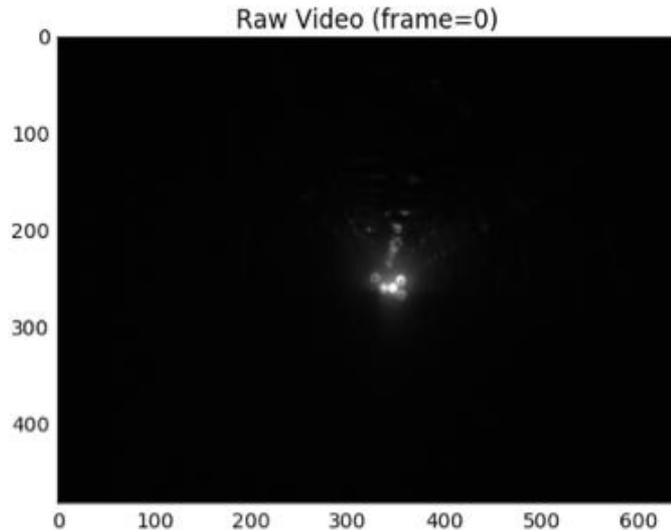


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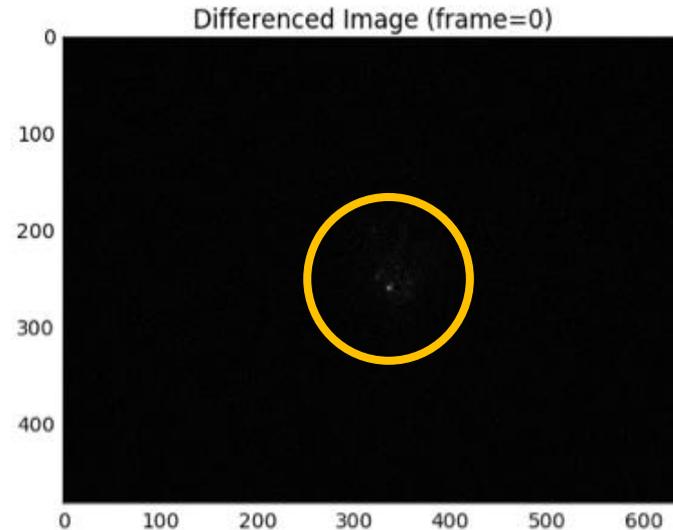
# Sandia National Lab Fog Chamber



# Testing in Actual Fog



Original



Difference

# Current Status

- Kerr Avionics is testing in helicopters.
- Collins Aerospace is testing at Sandia.



# Student Innovations



**Catalyze Klamath  
Winners - April 25**



**Statewide InventOR  
Winners – June 28**

# Facilities to promote project-learning, innovation & applied research



## Center for Excellence in Engineering and Technology at K-Falls

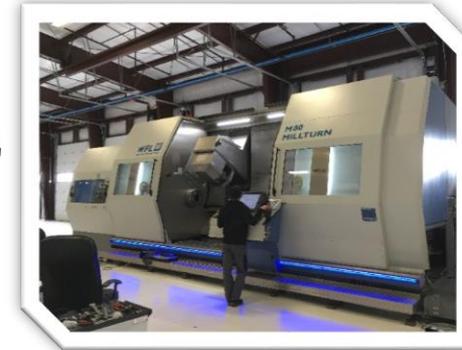
(Ground-breaking: Fall 2019; Dedication: 2021)



## Canyon Creek Manufacturing Lab at Portland-Metro

(Dedication -- April 26, '19)

# OMIC R&D: member companies



WFL Millturn:  
Multifunctional  
Turning-Boring-  
Milling Center at  
OMIC.

# Mario Segura – Mech Engr. DeArmond Manufacturing Fellow



*“Going to college is my dream. I remember being four years old and telling everyone I would go to college and become a doctor. At that age, I didn’t know all the hard work. I would have to invest in achieving my dream; I just knew it was something I was going to do.”*

*This scholarship is truly helping my dream come true, though now, I would like to become a mechanical engineer. I will be the first person in my immediate family to attend college.”*

# Commitment to being a vibrant and diverse community

*“With a commitment to diversity and leadership development...”*

Students of color, LGBTQ, and other diverse students, faculty and staff need to see themselves – and our commitment to them -- in our mission; adding the word “**diversity**” makes this explicit; reflects an intentional, welcoming community and directed programming and policies that support diverse communities at Oregon Tech.

**Leadership development** reflects both our teaching and learning approach, and opportunities for students, faculty and staff for growth and contributions within and beyond their roles.

# Diversity Initiatives



**Wakaya Wells**

Multicultural Student Services Coordinator

# Diversity Initiatives

- Creation of **Multicultural Affairs Office**
  - Introducing focus on and support of underrepresented students
  - Providing one-on-one support
  - Events and programs
  - Reimagining Space
- Creation of **Diversity, Equity, and Inclusion Committee**
- Strengthening relationship between Oregon Tech and **Native American communities** through MOA signed with Klamath Tribes in 2017.
- Organizing and providing support to **LGBTQ+ Community** and students.



# Inclusion: Recent Milestones



- Hosted Oregon Tech's first **PRIDE Week**
- Successfully organized and hosted area Latino and Native American high school students for annual **Latinos Unidos** and **Native American Student Visit Day** (hosted on Indigenous Peoples Day)
- From student request and input – put forward a **Smudging Procedure** to support Native American students and their spiritual practices. Approved by shared governance of Oregon Tech
- Partnered with **New Student Orientation** to introduce diversity programming to incoming students
- Re-started **Safe Zones Training** across campus
- Hosted community dinners, cultural hours, trainings, and workshops throughout the year to engage campus with the goals of **understanding and respecting difference**, promoting social justice, and contributing to cultural awareness
- Partnered with Student Success Center, ITS, and Registrar to implement **preferred name changes** in the Oregon Tech system.

# A broader responsibility across the entire State

Oregon Tech offers statewide educational opportunities ~~for the~~ **and technical expertise to meet current and** emerging needs of Oregonians ~~and provides information and technical expertise to state,~~ **as well as** national and international constituents.

Adds **current** to reflect applied research work of our faculty and students that is happening now and focused on longer term or on-going issues; and the emerging needs that innovative faculty and student respond to through their classroom, lab, field and applied research work.

# Pathways programs extend access, affordability, in-demand degrees

Accelerated  
Credit



SOUTHERN OREGON  
HIGHER EDUCATION  
**CONSORTIUM**



SOUTH METRO-SALEM  
**STEM**  
Partnership

Multi-site (Kfalls, Portland-Metro, Chemeketa, Seattle, Online)

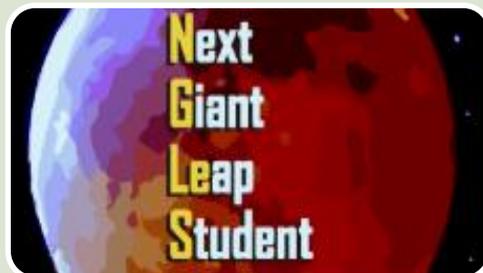
CC & K-12 pathways  
(Badger to Owl, Diploma to Degree)



# Revised mission statement

Oregon Institute of Technology (“Oregon Tech”), Oregon’s public polytechnic university, offers innovative, professionally-focused undergraduate and graduate degree programs in the areas of engineering, health, business, technology, and applied arts and sciences. To foster student and graduate success, the university provides a hands-on, project-based learning environment and emphasizes innovation, scholarship, and applied research. With a commitment to diversity and leadership development, Oregon Tech offers statewide educational opportunities and technical expertise to meet current and emerging needs of Oregonians, as well as other national and international constituents.

# Hosted STEM Hub: an access and preparation college pipeline



## Apollo Project

Oregon lead for Apollo  
Next Giant Leap  
Student Challenge

125 middle/high school  
participants competed  
in drone, robotics  
challenges

## Professional Development

580 K-12 educators,  
2680 hours of STEM  
prof. development.  
Teachers annually  
reach >29,000 K-12  
students.

## Community Connections

>400 classroom  
interactions for 20,000  
students; >700 Oregon  
professionals volunteer  
expertise with >1700  
Oregon educators.

**THANK YOU!**

