College of Engineering

The college of engineering is committed to the goals outlined in the OSU Strategic Plan 3.0, namely: 1) providing a transformative educational experience for all learners, 2) demonstrating leadership in research, scholarship and creativity while enhancing preeminence in the three signature areas of distinction, and 3) strengthening impact and reach throughout Oregon and beyond. The college’s efforts to positively affect each of these goals are addressed below. In addition, the college is dedicated to the OSU key initiatives of enhancing diversity, stewardship of resources, and using technology as a strategic resource as described below. Finally, college performance metrics, as prepared by OSU Institutional Research, are presented in the attached tables.

1. **Goal: Provide a transformative educational experience for all learners.**

Describe impactful programs that:

- **Enhance the learning environment to raise and equalize student success**
  - Many students entering engineering programs are underprepared in mathematics (placing below MTH 251). The college initiated two new opportunities for students in 1) ENGR 199: Foundations for Engineering Success, designed to enhance student success by engaging them in activities that promote self- and discipline-awareness, understanding academic requirements and planning, and that apply to real-world problems, and 2) Orange LEAP, to focus students on the applications of mathematics in required engineering courses. We are evaluating these programs to determine their effectiveness.
  - All incoming underrepresented minority (URM) students in the fields of science, technology, engineering, and mathematics (STEM), including community college transfer students, were invited to a two-day pre-fall term Leadership Academy. The 85 participants attended workshops on research/internship opportunities, academic success, and effective communication with advisors.
  - A new initiative supporting second-year female students was inaugurated to expand awareness of undergraduate research opportunities. Students were invited to a series of professional development workshops.
  - Enrollment in the professional programs continues to increase in many programs. Most programs offer required pro-school courses multiple times each year, thus reducing class size and improving student experiences and faculty-student interaction.
  - The highly-ranked online post-baccalaureate computer science degree program continues to grow, providing opportunities for place-bound students. Over 200 degrees were awarded this year, and five additional instructors were hired.

- **Make high-impact learning a hallmark of undergraduate education (resulting in responsible citizenship and global competitiveness)**
  - Experiential learning is an important part of engineering education and exists in a variety of forms:
    - Open-ended capstone design projects form the culminating team experience for almost all students. Their work is presented each year
during the Engineering Expo, where in FY 16, more than 700 students displayed 200 projects.

- Internships remain an important component of many students’ educational portfolio. MECOP, Inc. placed more than 450 junior and senior students in six-month internships in FY 16 and many more internships are undertaken outside the MECOP structure.

- Industries and professional engineering societies such as SAE, ASCE, ASC, and ASME and others sponsor national and international competitions focused on design solutions to complex, open-ended problems. Our students frequently compete successfully. By way of example, Assistant Professor Hoyle advised a group to a 2nd place finish in OSU’s inaugural entry in the Shell EcoMarathon where students from around the world design, build, and drive the most energy-efficient car possible.

- The COE Leadership Academy provides students with leadership development in a co-curricular structure consisting of seminars/workshops delivered with participation of industry partners, mentoring interactions with professionals, and completion of a professional internship. Student membership doubled in FY 16 and more than 200 professionals participated in group events.

- Fourteen COE programs were successfully accredited by ABET, Inc. including the initial accreditation of the B.S. in Energy Systems Engineering (ESE) program at the OSU-Cascades campus.

• **Advance learning through course design, assessment and faculty development (in degree programs as well as the BACCORE)**
  - U.S. DOE’s Office of Nuclear Energy asked NSE to establish and deliver an Undergraduate Radiochemistry Summer School. NSE co-hosted the program with the OSU Department of Chemistry this summer.
  - The college partnered with the Academic Success Center to expand the undergraduate learning assistants (UG LA) training. The UG LA will be dispersed across the college to assist with a variety of courses, principally laboratories and recitations.
  - As part of the five-year NSF RED (Revolutionizing Engineering Departments) grant, faculty in CBEE piloted curricular redesign in selected core sophomore-level courses aimed at bringing realistic, consequential work into the studio experience for students.
  - CCE dramatically expanded and improved the formative and summative teaching evaluation process. The new process includes a more holistic examination of the course, including guided peer observation of the classroom, course materials evaluation, and student interviews.

• **Grow online education and explore new pedagogical models**
  - CCE offered online sections of ENGR 211 (Statics), with 108 students enrolled in the 2015-16 academic year.
  - The e-Campus MEng degree in Engineering Management doubled its enrollment in 2016. This program provides access to working professionals, including those
working full time in companies such as Boeing Portland, Xerox, Nike, Intel, USPS, Parker Hannifin, and Lam Research.

- Two required engineering courses (ENGR 391, Engineering Economics and Project Management; and ENGR 390, Engineering Economics) were revamped to standardize content and deliverables for both on-campus and online sections.

- **Enhance and ensure the success of international students**
  - Jeff Nason and Anita Hughes (CBEE Graduate Programs Coordinator) worked with INTO to develop a first-time Progression Seminar for CBEE INTO students.

- **Enhance our comprehensive Healthy Campus Initiative**

- **Expand strategies to recruit diverse and high-achieving students (Corvallis, Cascades, Ecampus)**
  - The college initiated a Student Success Initiative (SSI) scholarship program by offering 240 awards to high-achieving and (1) high need or (2) 1st generation students in spring 2016 for fall 2017 admission. The Dean’s scholarship program continues unchanged.
  - COE continued with recruiting diverse students through Seniors Exploring Engineering (SEE) for women, and LSAMP Preview (for URM students) which brought 150 underrepresented high school seniors along with their parents to campus for an all-day Saturday program.
  - In order to increase the successful transfer of a greater number of URM, rural, and female students, the COE offered regularly scheduled advising sessions at two feeder community colleges, Linn Benton Community College and Chemeketa Community College.

- **Advance student success in other ways.**
  - COE schools invested resources in a variety of staff and instructor positions to improve student success. These include two Professional Practice instructors in CBEE; laboratory technicians in CBEE and MIME; graduate coordinators in NSE, MIME, and CBEE; and instructors in multiple schools.
  - The college increases student leadership opportunities this year by initiating an Engineering Student Council. The student-lead Council coordinates and supports student organizations and establishes a single point of reference in the college for resources pertaining to the creation of new student organizations and the operation of existing ones.
  - The new minor in Aerospace Engineering was approved and will prepare students for careers or graduate programs in astronautics and aviation. Recent MIME graduates with are working in the aerospace industry at companies and agencies such as SpaceX, Boeing, Blue Origin, UP Aerospace, Lockheed-Martin, Raytheon, ICE, Insitu, Northrop Grumman, China Lake Navy Research Facility, Virgin Galactic, Orbital ATK and Airborne Systems.

2. **Goal:** Demonstrate leadership in research, scholarship and creativity while enhancing preeminence in the three signature areas of distinction.

   Describe impactful programs/efforts across foundational areas as well as signature areas to:
• Attract and retain high-quality faculty
  ▪ The college successfully recruited 11 faculty, including six females.
  ▪ The college initiated or expanded a number of faculty support programs, including new faculty development workshops, grant writing seminars, CAREER preparation workshops, and additional staff support in the COE Research office.
  ▪ MIME successfully completed five hires that will enhance our capability across manufacturing, materials, and human systems. These hires also increase the number of women faculty by two and the number of URM faculty by two.
  ▪ In conjunction with the office of the Associate Dean for Research, Associate Professor Grimm helped develop a sequence of workshops and materials to guide new engineering faculty on how to write CAREER grants.

• Expand and cultivate transdisciplinary research (on campus or through partnerships)
  ▪ A new NSF, $4.5 million grant will allow Greg Herman (PI) and others at OSU and UW to take nanotechnology research to a new level by focusing on collaboration with the Northwest’s high-tech industry.
  ▪ Robotics faculty from MIME and EECS joined together to build the Institute for Robotics, Autonomy, and Intelligent Systems (IRAIS) whose mission is to study the theory, design, development and operation of robots and intelligent systems, and to create seamless interaction between humans and robots in both physical and virtual environments.
  ▪ The Center for Collaborative Conservation Fellowship supports the partnership between the COE humanitarian engineering program, Associate Professor Hannah Gosnell (geography), and other faculty and community members from Kenya and the U.S. West for a transdisciplinary project on pastoralism.

• Increase the quality, capacity and impact of graduate programs
  ▪ CBEE received final approvals to launch a new interdisciplinary graduate program, offering Ph.D. and M.S./MENG degrees in Bioengineering.
  ▪ CCE offered a new graduate course aimed at preparing engineering students for careers in academia, with a focus on course design and evidence-based instructional practices.
  ▪ The recent ranking of the OSU Robotics program as 4th in the nation likely influenced the 81 percent increase in graduate applications in 2016 compared to 2015.
  ▪ In collaboration with the College of Science, EECS launched an online graduate program in data analytics.

• Expand and increase high-profile programs in the arts and humanities.
  ▪ NSE collaborated with the College of Liberal Arts School of Public Policy to develop curriculum in nuclear nonproliferation.
  ▪ The Evans Family Fellowship program has made 14 awards to students involved in highly interdisciplinary research or field activities related to education, policy,
anthropology, and more. Field research locations for these students include Guatemala, Kenya, Nepal, Ecuador, Ethiopia, Tanzania, and Uganda.

- **Advance leadership in research, scholarship and creativity in other ways.**
  - COE faculty were awarded six CAREER grants and two ONR Young Investigator awards.
  - The undergraduate humanitarian engineering minor was formally approved with several new courses such as “Engineering for Global Health Solutions,” “Household Energy in Guatemala,” and “Multidisciplinary Approaches to Case Studies.”

3. **Goal: Strengthen impact and reach throughout Oregon and beyond.**

Provide a brief summary of key initiatives that:

- **Position OSU’s outreach and engagement programs as learning laboratories that promote high-impact learning and effectively utilize university research**
  - CCE received a $3.8 million award from the National Science Foundation to increase the resilience of the nation’s coastal communities by providing the natural hazards engineering community access to research infrastructure, as well as educational and community outreach activities.
  - COE partnered with Maple Microdevelopment, private entrepreneurs, and the International Development Innovation Network to support the launch of a soap-making social enterprise in Soroti, Uganda to promote prevention, treatment, and rehabilitation of obstetric fistula.

- **Grow rural and urban regional centers to advance social progress**
  - CCE Assistant Professor Meghna Babbar-Sebens offers a web-based tool, WRESTORE, which she developed for community stakeholders to visualize their watershed and design land use and runoff management options for their particular landscapes.
  - CCE Associate Professor David Hill contributed to a project lead by OSU faculty member Kendra Sharp to develop a free, open-source software that can determine a stream or river’s potential as an energy source. With the software, users anywhere in the world can assess the potential of a stream for small-scale hydropower, an option which is of special importance in the developing world.

- **Drive economic development**
  - NuScale Power (a COE spinoff) received a $226M matching grant from the US DOE to support the design certification process. NuScale now has 180 patents in force or pending in 19 countries and employs nearly 600 employees, with 300 in Oregon.
  - In response to a shortage of medical radionuclides, Radiation Center Staff and NSE faculty and students designed a proprietary target that could be used to produce these important diagnostic radionuclides in research reactors and launched Northwest Medical Isotopes, LLC.
  - Researchers led by Adam Higgins, an associate professor of bioengineering, have discovered a new approach to “vitrification,” or ice-free cryopreservation,
Annual Academic Reports for 2015-16

could enable much wider use of extreme cold to preserve tissues and organs for later use. The new procedure increased healthy cell survival following vitrification from 10 percent to more than 80 percent. (PLOSOne)

Agility Robotics was founded in 2016 as a direct spinoff of work done in the Dynamic Robotics Laboratory where Associate Professor Jonathan Hurst is the PI.

Increase study abroad and strategic international research partnerships

- Through a fellowship and lecture series, Brian Wood is collaborating with Oxford and Cambridge Universities and Imperial and University Colleges to develop and apply tissue homogenization in biology and medicine.
- COE faculty in MIME and CCE are part of an $18M USAID-funded Partner Center of Advanced Studies in Energy with two universities in Pakistan. Led by Arizona State University (ASU), the project will develop programs to promote applied research and a trained workforce capable of addressing Pakistan’s energy needs.

Engage alumni and other external partners to advance our goals

- The Leadership Academy is structured to catalyze meaningful involvement between students and alumni/industry partners. In 2015-16 over 200 different partners engaged with students through participation in program-related activities.
- Dick and Gretchen Evans gave an additional gift to support travel by MIME faculty and engineering graduate students to attend the Global Summit of Women 2016 in Warsaw, Poland. At this event, Dick used his platform as a panel moderator to give a presentation on OSU’s humanitarian engineering program to about 800 women leaders from 75 countries.

Advance impact and reach in other ways.

- PRISM group (PI Chris Daly) continues as the official source of weather and climate data for the US crop insurance program, which insures $130 billion in crop value in the US each year. Downloads of PRISM gridded data from the public portal have skyrocketed, now averaging about seven to eight million per month.
- Drs. David Blunck and Kyle Niemeyer secured $1.3M from the Strategic Environmental Research and Development Program (SERDP) to study smoldering combustion as part of a larger program with the USDA Forest Service. The project will strengthen the engineering presence in the Oregon FIRE center.
- Associate Professor John Parmigiani, MIME, helped secure $1.2M in industry matched research funding through Oregon Metals Initiative (OMI). Participating companies include; Boeing, Blount, Daimler Trucks, Intel, Hatch Product Development, Leatherman Tools, PCC, and ATI.
- COE is part of an 11-member consortium working on a $22M Cyber Resilient Energy Delivery project. The project studies the security of the nation’s electric system.
- A $10M NSF Grant was awarded to a multi-university team to cultivate a large national and international research network exploring new research directions in computational sustainability. Specific topics include enhancing biodiversity and conservation, balancing socio-economic needs and advancing renewable energy.
OSU has partnered with Portland State University and industry partners, Central Lincoln Public Utility District, Portland General Electric and Pacific Power to develop graduate level, professional development, and industrial short courses for incumbent and emerging talent in the electrical power systems area.

4. In addition to these goals, the Strategic Plan also establishes a commitment to three essential features for OSU.

   • Enhancing diversity
     • Increasing diversity of faculty, staff and students
       ▪ The college undertook a number of actions to increase diversity and to improve awareness of diversity-related issues.
         • Anne Gillies delivered Implicit Bias training at faculty retreats/meetings to reach all faculty in the college.
         • The college revised our faculty search processes so that searches must be chaired by trained search advocates, and an additional search advocate from outside the college must be part of each search committee.
         • COE organized and partnered with Juntos to host the inaugural El Vecindario Creativo event of the re-imagined da Vinci Days to celebrate the region’s Latino community.
       ▪ Most of the COE leadership have completed the OSU ADVANCE training.
       ▪ The NSF-funded RED project team developed and delivered a first faculty/staff summer workshop aimed at empowering faculty/staff to identify and include activities and work focused on advancing diversity/inclusion/equity/student success into their position descriptions.
       ▪ MIME faculty, along with those at five other universities, led the NSF-funded Transforming Engineering Culture to Advance Inclusion and Diversity (TECAID) project, which is aimed at programmatic activities that may boost a more diversified student body in mechanical engineering.
     • Developing comprehensive work-life balance programs
   • Stewardship of resources
     • Enhancing resources through private philanthropy
       ▪ Private resources were used for several renovation projects in existing buildings, including Graf and Covell Halls and the Oak Creek Building.
       ▪ Private gifts provided 50 percent of the funding for the soon to be completed Johnson Hall to house CBEE and COE Student Services.
       ▪ An anonymous $1M gift allowed two Engineering Dean’s Professors to be recognized for their achievements. Inaugural recipients were Drs. Glencora Borradaile (EECS) and Jonathan Hurst (MIME).
     • Develop an integrated infrastructure recapitalization plan
       ▪ The college has a multi-year renovation/rehabilitation plan to allow the utilization of existing facilities, including Merryfield, Graf, Batcheller and Covell Halls.
• The college is moving all graduate student office space to a 40 sq. ft. footprint to better use existing space.
  o Promote sustainable built and natural environments
  o Balance economic and environmental improvements in the region
• Technology as a strategic asset
  o Share relevant information to make effective decisions
    ▪ The college is implementing SalesForce in an effort to track communication and enhance engagement with alumni and industry partners.
  o Invest in information technology to enable educational innovation
    ▪ CBEE Professor Milo Koretsky was the recipient of the 2016 CACHE Award given by the Chemical Engineering Division of the ASEE annually for significant contributions in the development of computer aids for chemical engineering education.
  o Enhance the quality of service in administrative processes
    ▪ The college is a significant participant in the university effort to implement Digital Measures for all faculty which allows streamlined reporting for annual performance reviews and P&T dossier preparation.

5. The OSU Office of Institutional Research provided the college-level metrics included below. Generally, the trends in these metrics are positive. Both faculty FTE and enrollment at the undergraduate and graduate levels have grown. Faculty FTE lags enrollment growth (roughly 15 versus 20 percent).

First-year retention and graduation rates have held steady or improved slightly since FY14. The junior transfer four-year graduation rates for the college have improved significantly over the last three years going from 50 to 58 percent. The numbers of U.S. minority and international students increased over the last three years from roughly 16.5 to 21.5 percent and 15 to 20 percent, respectively. The number of high-achieving Oregon students in the college is approaching 50 percent.

The number of awarded college degrees increased about 20 percent over the 2013-14 fiscal year, reaching 1385. Baccalaureate and Masters degrees each rose about 23 percent, with more than 1000 baccalaureate and 290 Masters degrees. The number of doctoral degrees declined significantly since 2013-14. We expect this commonly variable number to increase next year as some of the recent hires solidify their research programs.

The number of new research contracts awarded in FY16 is significantly higher than reported in FY14 (73 percent), however the total dollar amount of awards is down roughly 16 percent. The FY14 awards total was relatively higher due to, in part, some large equipment/infrastructure awards to NSE.
## Annual Academic Reports for 2015-16

- **Oregon State University**
- **College of Engineering**
- **Annual Academic Program Review 2015-16**

### Faculty FTE

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### Fall Enrollment by Major

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<td>3064</td>
<td>3142</td>
<td>3221</td>
<td>3449</td>
<td>3764</td>
<td>4217</td>
<td>4463</td>
<td>5114</td>
<td>5836</td>
<td>6565</td>
<td>7120</td>
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<tr>
<td>Graduate</td>
<td>601</td>
<td>626</td>
<td>551</td>
<td>525</td>
<td>569</td>
<td>583</td>
<td>657</td>
<td>733</td>
<td>842</td>
<td>900</td>
<td>975</td>
<td>1084</td>
<td>1230</td>
<td>1304</td>
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<tr>
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<tr>
<td><strong>TOTAL Enrollment</strong></td>
<td><strong>3762</strong></td>
<td><strong>3781</strong></td>
<td><strong>3618</strong></td>
<td><strong>3589</strong></td>
<td><strong>3711</strong></td>
<td><strong>3804</strong></td>
<td><strong>4106</strong></td>
<td><strong>4497</strong></td>
<td><strong>5059</strong></td>
<td><strong>5363</strong></td>
<td><strong>6089</strong></td>
<td><strong>6930</strong></td>
<td><strong>7795</strong></td>
<td><strong>8424</strong></td>
<td><strong>21.6%</strong></td>
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</table>
### Goal 1. Provide a Transformative Educational Experience for all Learners.

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</thead>
<tbody>
<tr>
<td>1.3 First Year Retention Rate (College/University)</td>
<td>67.5/83.7</td>
<td>68.8/85.4</td>
<td>70.0/84.7</td>
<td>64.0/82.0</td>
<td>68.5/81.5</td>
<td>70.0/84.5</td>
<td>68.4/80.9</td>
<td>71.7/85.6</td>
<td>72.7/84.6</td>
<td>70.4/84.2</td>
<td>73.2/85.5</td>
<td>72.5/85.7</td>
<td>72.1/84.7</td>
<td>72.6/85.4</td>
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<tr>
<td>1.4 6-Year Graduation Rate (College/University)</td>
<td>39.6/63.0</td>
<td>44.0/62.2</td>
<td>45.0/62.7</td>
<td>44.7/66.9</td>
<td>41.5/65.1</td>
<td>45.2/66.0</td>
<td>41.5/66.5</td>
<td>45.6/63.8</td>
<td>44.2/63.3</td>
<td>43.5/63.4</td>
<td>43.6/62.3</td>
<td>45.1/62.5</td>
<td>44.4/65.6</td>
<td>45.8/66.1</td>
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<tr>
<td>1.5 Junior Transfer 4-Year Graduation Rate (College/University)</td>
<td>68.4/70.5</td>
<td>68.8/77.8</td>
<td>58.4/65.3</td>
<td>46.6/59.1</td>
<td>64.9/70.2</td>
<td>65.1/61.7</td>
<td>63.6/68.8</td>
<td>63.6/55.8</td>
<td>61.5/53.8</td>
<td>62.5/67.0</td>
<td>59.4/65.6</td>
<td>59.0/58.2</td>
<td>53.5/62.8</td>
<td>58.2/65.7</td>
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<tr>
<td>1.6 % US Minority Students</td>
<td>13.8%</td>
<td>13.4%</td>
<td>13.0%</td>
<td>13.6%</td>
<td>14.2%</td>
<td>13.3%</td>
<td>14.2%</td>
<td>14.8%</td>
<td>15.2%</td>
<td>16.6%</td>
<td>17.6%</td>
<td>17.9%</td>
<td>19.9%</td>
<td>21.4%</td>
</tr>
<tr>
<td>1.7 % International Students</td>
<td>14.0%</td>
<td>11.0%</td>
<td>9.0%</td>
<td>8.0%</td>
<td>8.0%</td>
<td>9.0%</td>
<td>9.0%</td>
<td>10.0%</td>
<td>13.0%</td>
<td>15.0%</td>
<td>18.0%</td>
<td>20.0%</td>
<td>20.0%</td>
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<tr>
<td>1.8 % High Achieving Oregon High School Graduates</td>
<td>-</td>
<td>35.0%</td>
<td>36.7%</td>
<td>42.3%</td>
<td>39.0%</td>
<td>37.5%</td>
<td>41.5%</td>
<td>42.3%</td>
<td>43.0%</td>
<td>44.9%</td>
<td>43.1%</td>
<td>46.9%</td>
<td>53.1%</td>
<td>48.7%</td>
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</table>

### Goal 3. Strengthen Oregon State’s Impact and Reach throughout the state and beyond.

| 3.2 Invention Disclosures | 23 | 17 | 23 | 22 | 24 | 0 | 23 | 18 | 41 | 29 | 33 | 23 | 26 | 24 |
## Annual Academic Reports for 2015-16

**Oregon State University**  
**College of Engineering**

### Annual Academic Program Review 2015-16

#### Resources (Fiscal Year)

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<tr>
<td>O&amp;S Earnings [S]</td>
<td>21,092,259</td>
<td>26,902,873</td>
<td>28,406,597</td>
<td>27,015,244</td>
<td>26,159,176</td>
<td>31,102,929</td>
<td>28,472,182</td>
<td>43,252,666</td>
<td>37,190,807</td>
<td>45,646,274</td>
<td>54,867,800</td>
<td>62,660,596</td>
<td>58,032,311</td>
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<tr>
<td>Awards from Grants and Contracts [S]</td>
<td>231</td>
<td>226</td>
<td>197</td>
<td>230</td>
<td>270</td>
<td>317</td>
<td>317</td>
<td>275</td>
<td>215</td>
<td>204</td>
<td>206</td>
<td>308</td>
<td>356</td>
<td>72.6%</td>
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### Strategic Planning Metrics 2015-16

|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Goal 2: Demonstrate Leadership in Research, Scholarship and Creativity while enhancing preeminence in the three signature areas of distinction
| 2.1 Total R&D Expenditures | see APP data above |
| Goal 3: Strengthen Oregon State's Impact and Reach throughout the state and beyond. |
| 3.5 Annual Private Giving | see APP data above |

* From 2000-01 to 2007-08, the number of grant/contract awards is based on the accounting transactions from the College's award index, rather than the actual number of awards received by the college.*
### Annual Academic Reports for 2015-16

#### Oregon State University

**College of Engineering**

Annual Academic Program Review 2015-16

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<tr>
<td>Bachelor</td>
<td>520</td>
<td>559</td>
<td>531</td>
<td>597</td>
<td>588</td>
<td>505</td>
<td>539</td>
<td>576</td>
<td>583</td>
<td>664</td>
<td>690</td>
<td>851</td>
<td>928</td>
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<tr>
<td>Master</td>
<td>142</td>
<td>181</td>
<td>188</td>
<td>135</td>
<td>112</td>
<td>127</td>
<td>140</td>
<td>169</td>
<td>177</td>
<td>208</td>
<td>188</td>
<td>235</td>
<td>233</td>
<td>290</td>
<td>23.4%</td>
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<tr>
<td>Doctorate</td>
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<td>30</td>
<td>25</td>
<td>32</td>
<td>35</td>
<td>27</td>
<td>36</td>
<td>43</td>
<td>40</td>
<td>47</td>
<td>62</td>
<td>71</td>
<td>61</td>
<td>45</td>
<td>-36.6%</td>
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<td>0</td>
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<td>Total Degrees</td>
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<td>772</td>
<td>744</td>
<td>764</td>
<td>735</td>
<td>660</td>
<td>715</td>
<td>788</td>
<td>800</td>
<td>919</td>
<td>940</td>
<td>1157</td>
<td>1222</td>
<td>1385</td>
<td>19.7%</td>
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#### Strategic Planning Metrics 2015-16

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<tr>
<td>1.1 Degrees Awarded Total see APR data above</td>
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