

Nuclear Engineering Enrollments and Degrees Survey, 2016 Data

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Survey Universe

The 2016 survey includes degrees granted between September 1, 2015 and August 31, 2016, and enrollments for fall 2016. Thirty-five nuclear academic programs were surveyed, and information was received from all programs for 2016. The enrollments and degrees data include students majoring in nuclear engineering or in an option program equivalent to a major. Some nuclear engineering programs have indicated that their data include health physics option enrollments and degrees which are also reported in the health physics enrollments and degrees survey.

Degree Data

Bachelor's Degrees. The number of B.S. degrees in 2016 awarded by nuclear engineering programs is 5 percent lower than in 2015, but only about 1 percent lower than the number awarded in 2014. (Table 1) The number of B.S. degrees in 2016 remains significantly above the numbers reported in the previous decade and is 79 percent higher than the number reported in 2006. Nuclear engineering majors accounted for 86 percent of all B.S. degrees. (Table 2)

Graduate Degrees. The number of master's degrees awarded by nuclear engineering programs in 2016 fell by 2 percent from 2015 but is 10 percent higher than the number awarded in 2014. (Table 1) The number of M.S. degrees in 2016 was greater than the numbers reported at the beginning of the decade and 66 percent greater than the number reported in 2006. The number of doctorate degrees increased in 2016 and resumed a trend of increases since 2010 after a one-year decrease in 2015. The number of PhDs awarded in nuclear engineering is the fourth highest reported since 1966 and the second highest since 1972. Nuclear engineering majors accounted for 93 percent of the M.S. degrees and 99 percent of the Ph.D. degrees. (Table 2)

TABLE 1 | Nuclear Engineering Degrees, 2007-2016

Year	B.S.	M.S.	Ph.D.
2016	621	355	161
2015	652	363	147
2014	627	322	169
2013	655	362	147
2012	610	333	119
2011	524	277	113
2010	443	303	113
2009	395	233	87
2008	454	260	127
2007	413	227	89
2006	346	214	70

Source: Oak Ridge Institute for Science and Education.

TABLE 2 | Nuclear Engineering Degrees by Curriculum, 2016

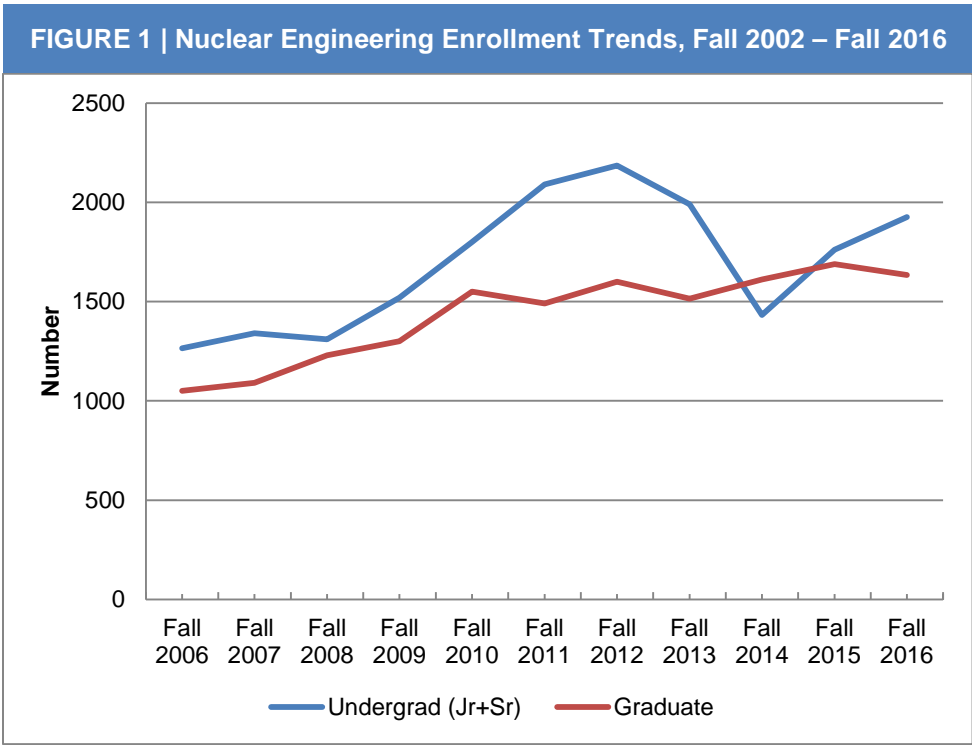
Curriculum	B.S.	M.S.	Ph.D.
Nuclear Engineering Major	535	330	160
Nuclear Engineering Option	86	25	1

Source: Oak Ridge Institute for Science and Education.

Enrollment Trends and Short-Term Outlook for Degree Trends

Undergraduate Students. In 2016, the enrollment of junior and senior nuclear engineering undergraduate students was over 1,900, an increase of 9 percent above the number reported in 2015 and approaching the levels reported from 2011 through 2013. (Figure 1) Undergraduate enrollment reported for 2016 is the fourth highest undergraduate enrollment reported since 1978. Undergraduate enrollment appears to have recovered after the decline experienced in 2014. The increase in undergraduate enrollments will likely result in modest increases in the number of bachelor’s degrees earned over the next year or two. The number of B.S. degrees should remain above 600 in 2017.

Graduate Students. Graduate enrollment in 2016 was over 1,600 students, similar to graduate enrollments reported in 2014 and 2015, and nearly 8 percent higher than graduate enrollments reported for 2013. (Figure 1) Graduate enrollments have rebounded substantially since 2001 but are still below the numbers reported from the mid-1970s. The continued strength in graduate enrollment indicates that both the number of M.S. degrees and number of Ph.D. degrees awarded in the near future are likely to remain near the levels of the last three years.



Source: Oak Ridge Institute for Science and Education.

Citizenship, Gender, and Race/Ethnicity of Degree Recipients

Note that citizenship, gender, and race/ethnicity data were not reported for all degree recipients. Percentages for the B.S., M.S., and Ph.D. degrees are based on the 525 B.S. degrees, 305 M.S. degrees, and 158 Ph.D. degrees for which data was reported. (Table 3)

Citizenship. Non-U.S. citizens accounted for 4 percent of B.S. degree recipients, 17 percent of the M.S. degree recipients, and 28 percent of the Ph.D. degree recipients.

Gender. Females comprised 18 percent of the B.S. degree recipients, 15 percent of the M.S. degree recipients, and 16 percent of the Ph.D. recipients.

Race/Ethnicity. Among B.S. degree recipients, 20 percent of the U.S. citizens were members of minority groups. Among M.S. and Ph.D. degree recipients, 13 percent and 16 percent of the U.S. citizens were members of minority groups, respectively.

TABLE 3 Citizenship, Gender, and Race/Ethnicity of Degree Recipients, 2016 ¹						
	B.S.		M.S.		Ph.D.	
	Female	Male	Female	Male	Female	Male
Non-U.S. Citizens	6	17	10	41	8	37
U.S. Citizens	86	416	35	219	17	96
African/Black American	5	16	1	4	0	1
American Indians	0	3	0	0	0	0
Asian/Pacific Island American	9	37	1	12	2	8
Hispanic American	6	24	2	14	1	6
White/Caucasian American	62	316	30	176	14	72
Other or Unknown	4	20	1	13	0	9
Totals	92	433	45	260	25	133

¹Citizenship, gender, and race/ethnicity data were not available for 96 B.S. degree recipients, 50 M.S. degree recipients, and 3 Ph.D. recipients.

Source: Oak Ridge Institute for Science and Education.

TABLE 4 | Nuclear Engineering Degrees, 2016, by Academic Institution

State	Name of Institution	Degrees (Sept. 1, 2015 – Aug. 31, 2016)		
		B.S.	M.S.	Ph.D.
CA	University of California, Berkeley	17	6	5
CO	Colorado School of Mines	0	6	2
FL	University of Florida	20	7	3
GA	Georgia Institute of Technology	24	13	12
ID	Idaho State University	16	14	3
IL	University of Illinois at Urbana-Champaign	35	17	6
IN	Purdue University	21	14	5
KS	Kansas State University	11	2	0
MA	Massachusetts Institute of Technology	10	15	13
MA	University of Massachusetts Lowell	6	4	0
MD	University of Maryland	0	4	1
ME	University of Maine	1	0	0
MI	University of Michigan	28	28	21
MO	Missouri University of Science and Technology	39	8	5
MO	University of Missouri	0	0	1
NC	North Carolina State University	23	10	11
NM	University of New Mexico	16	10	1
NV	University of Nevada, Las Vegas	0	1	1
NY	Rensselaer Polytechnic	33	7	3
NY	United States Military Academy at West Point	15	0	0
OH	Air Force Institute of Technology	0	11	2
OH	Ohio State University	21	10	6
OH	University of Cincinnati	0	0	1
OR	Oregon State University	38	6	3
PA	Penn State University	90	30	4
PA	University of Pittsburgh	34	25	0
SC	South Carolina State University	11	0	0
SC	University of South Carolina	0	6	1
TN	University of Tennessee	30	26	15
TX	Texas A&M University	26	22	17
TX	University of Texas	0	6	3
UT	University of Utah	4	10	1
VA	Virginia Commonwealth University	21	14	6
VA	Virginia Polytechnic Institute & State University	0	2	0
WI	University of Wisconsin-Madison	31	21	9
Totals		621	355	161

Source: Oak Ridge Institute for Science and Education.

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