**Graduate School of Biomedical Sciences**

The GSBS evaluates success with respect to student achievement through a variety of measures including pass rate of candidacy and doctoral defenses, length of time to complete the program of study, certification examinations as applicable, publication of dissertation research, and postdoctoral and job placement. Doctoral program effectiveness data, which support the GSBS mission and mission and vision of The University of Texas MD Anderson Cancer Center (MD Anderson) and The University of Texas Health Science Center (UTHealth), are reported annually to the Texas Higher Education Coordinating Board (THECB) [**4**]. All these evaluations support the GSBS mission: The mission of The University of Texas Graduate School of Biomedical Sciences is “to maintain an innovative and diverse environment that provides an unprecedented breadth of opportunities for outstanding graduate students to train with leading biomedical scientists at MD Anderson and UTHealth. The combined strengths of these institutions provide students with access to basic and translational scientific programs that are at the cutting edge of the fight to treat all major diseases.” The curriculum is designed to provide students with a rigorous exposure to critical thinking strategies, area specific scientific skills, and career development initiatives. The curriculum, together with an emphasis on research training and scientific productivity, is designed to position our students for an outstanding and successful career in the biomedical sciences.

*Course Completion* - The Academic Standards Committee, the Office of the Associate Dean for Academic Affairs, Program Coordinators, faculty advisors, and advisory/supervisory committees all regularly monitor the progress of individual students enrolled in didactic courses. In addition, the Curriculum Committee reviews all major courses at least every three years. By these indications, the great majority (typically 96 percent or more) of registered students complete didactic courses. Grades of withdraw pass (WP), withdraw fail (WF), incomplete (I) and F are counted towards courses not completed. GSBS is meeting its target course completion rate of 90 percent. The target was set at 90 percent for all course delivery methods because data shows that the school has a high course completion rate. Should any course completion rate drop below a threshold of 85 percent, corrective action would be taken. See Table 8.1.31 below for course completion data by degree program.

**Table 8.1.31.** Course Completion by Degree Program

Academic Years: 2020-21 and 2021-22

Target: 90% of courses completed (Target met for all degree programs)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **PhD Program** | | | | | |
| **Academic Year** | **Courses Completed** | | **Courses Not Completed** | | **Total Number of Courses Attempted** |
| **#** | **%** | **#** | **%** |
| 2020-21 | 904 | 99.6 | 4 | 0.04 | 908 |
| 2021-22 | 882 | 99.8 | 2 | 0.02 | 884 |
| **Total** | **1786** | **99.7** | **6** | **0.03** | **1792** |
| **M.S. in Biomedical Sciences** | | | | | |
| **Academic Year** | **Courses Completed** | | **Courses Not Completed** | | **Total Number of Courses Attempted** |
| **#** | **%** | **#** | **%** |
| 2020-21 | 103 | 99.9 | 1 | 0.01 | 104 |
| 2021-22 | 97 | 99.9 | 1 | 0.01 | 98 |
| **Total** | **200** | **99.9** | **1** | **0.01** | **202** |
| **M.S. in Genetic Counseling** | | | | | |
| **Academic Year** | **Courses Completed** | | **Courses Not Completed** | | **Total Number of Courses Attempted** |
| **#** | **%** | **#** | **%** |
| 2020-21 | 187 | 100 | 0 | 0 | 187 |
| 2021-22 | 180 | 100 | 0 | 0 | 180 |
| **Total** | **367** | **100** | **0** | **0** | **367** |
| **M.S. in Medical Physics** | | | | | |
| **Academic Year** | **Courses Completed** | | **Courses Not Completed** | | **Total Number of Courses Attempted** |
| **#** | **%** | **#** | **%** |
| 2020-21 | 19 | 100 | 0 | 0 | 19 |
| 2021-22 | 15 | 100 | 0 | 0 | 15 |
| **Total** | **34** | **100** | **0** | **0** | **34** |

*Candidacy Exams* - The first­try candidacy examination pass rate for 257 Ph.D. candidacy exams taken over the past five years include 162 unconditional passes, 87 conditional passes, 8 re­examinations, and 0 failures (failures would have resulted in terminal Master of Science (M.S.) degrees). See Table 8.1.32 below. These results indicate that a large proportion of GSBS students who attempt the exam achieve Ph.D. Candidacy. GSBS is meeting its first­try candidacy examination pass rate of 80 percent. The target was set at 80 percent because our data shows we have a high first­try candidacy examination pass rate. Should any first­try candidacy examination pass rate drop below a threshold of 75 percent, corrective action would be taken.

**Table 8.1.32.** Initial Ph.D. Candidacy Examination Results1/1/2019 – 12/31/2022

Target: 80% of students receive an initial result of unconditional/conditional pass on Ph.D. candidacy exam (Target met)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Unconditional Pass** | | **Conditional Pass** | | **Re-Examine** | | **Fail** | | **Total** |
| 2019 | 36 | 66% | 17 | 31% | 1 | 2% | 0 | 0% | 54 |
| 2020 | 23 | 68% | 11 | 32% | 0 | 0% | 0 | 0% | 34 |
| 2021 | 54 | 80% | 8 | 20% | 5 | 0% | 0 | 0% | 67 |
| 2022 | 51 | 77% | 15 | 23% | 0 | 0% | 0 | 0% | 66 |
| **Total** | 164 | 74% | 51 | 23% | 6 | 3% | 0 | 0% | 221 |

*Time to Degree* - As another indicator of the successful progress of graduate students through their program of study, GSBS monitors the length of time to complete the doctoral degree, regardless of delivery method. The mean length of time for all students, 2007­2015, to receive the Ph.D. was 5 years, which was below the national norm for all graduates of programs in the biological sciences (5.5 – 7 years per the NIH Biomedical Research Workforce Working Group Report in 2012). Tables below (8.1.33, 34, 35 and 36) summarize length of time to completion for the Ph.D. Program in Biomedical Sciences, specialized M.S. Program in Genetic Counseling, specialized M.S. Program in Medical Physics and M.S. Program in Biomedical Sciences. GSBS is meeting its time to degree targets for all Programs. These targets were set because school data shows that most Ph.D. students complete their degree in less than 6 years, S.M.S. Genetic Counseling students in less than 2 years and S.M.S. Medical Physics and M.S. Biomedical Sciences in less than 3 years. Should any yearly time to degree average raise above a 6-year threshold (for Ph.D.), a 2-year threshold (for S.M.S. Genetic Counseling) or a 3-year threshold (for S.M.S. Medical Physics and M.S. Biomedical Sciences), the school would take corrective action.

*Graduation Rates by Gender -* The GSBS graduation rates for all Programs by gender can be found in Table 8.1.37, 38, 39 and 40. Female and male graduation target rates are set at 70%, with a threshold of below 70 percent set for corrective action. All GSBS Programs met these target rates except for the SMS Medical Physics Program in 2016 (female graduation rate of 50%) and the MS in Biomedical Sciences Program in 2010, 2013 and 2014 (male graduation rates of 50%, 67% and 67%, respectively). Due to these Programs’ small student numbers, one or two students leaving the program results in dropping below graduation rate thresholds. Efforts have been and will continue to be made to advise and provide support for all students entering all GSBS Programs to increase retention/graduation rates. Given the lack of a trend over time, GSBS will continue to monitor the graduation rates by race and ethnicity.

*Graduation Rates by Race and Ethnicity -* The GSBS graduation rates by race/ethnicity can be found in Table 8.1.41, 42, 43 and 44. All reported race and ethnicity graduation target rates are set at 70%, with a threshold of below 70 percent set for corrective action. The SMS Genetic Counseling Program met this target rate for all years reported. The PhD, SMS Medical Physics and MS Biomedical Science Programs did not meet this target rate for every race/ethnicity reported in select years. Due to the very small student numbers of some categories of race/ethnicity, one or two students leaving the school resulted in dropping below the graduation rate threshold. GSBS has recently hired (2019) a new Associate Dean for Diversity and Inclusion to oversee and develop resources for under-represented student populations as well as all of our students. Given the lack of a trend over time, GSBS will continue to monitor the graduation rates by race and ethnicity.

**Table 8.1.33.** Length of Time to Completion (In Years)

Ph.D. Student Cohort Outcomes

2012 - 2019

Data Analyzed as of March 2023

Target – Time to Degree of <6 years – Target Met

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | **Continuing in Program** | | **Graduated with Ph.D.** | | | | **Graduated with M.S.** | | | | **Left without Degree** | |
| **#** | **%** | **#** | **%** | **Median\*** | **Avg. \*** | **#** | **%** | **Median\*** | **Avg. \*** | **#** | **%** |
| 2012 | 66 | - | - | 59 | 89.4 | 5.2 | 5.3 | 1 | 1.5 | - | 2.7 | 6 | 9.1 |
| 2013 | 53 | - | - | 48 | 90.6 | 5.0 | 5.4 | 1 | 1.9 | - | 2.7 | 4 | 7.5 |
| 2014 | 52 | - | - | 44 | 85 | 5.3 | 5.1 | 4 | 7.7 | 2.5 | 2.6 | 4 | 7.7 |
| 2015 | 58 | 7 | 12 | 44 | 75.8 | 5.1 | 5.1 | 3 | 5.2 | 3.0 | 23.4 | 4 | 7 |
| 2016 | 61 | 7 | 11.5 | 46 | 75.4 | 5.2 | 5.1 | 1 | 1.6 | - | 2.3 | 7 | 11.5 |
| 2017 | 53 | 30 | 56.6 | 17 | 32.1 | 4.6 | 4.5 | 2 | 3.8 | - | 4.6 | 4 | 7.5 |
| 2018 | 70 | 60 | 85.7 | 7 | 10 | 3.8 | 3.8 | - | - | - | - | 3 | 4.3 |
| 2019 | 65 | 59 | 90.8 | 2 | 3.1 | 3.3 | 3.3 | 1 | 1.5 | - | 3.0 | 3 | 4.6 |

*\* Indicates Average or Median time to degree in years*

**Table 8.1.34.** Graduate Rate by Gender

Ph.D. Student Cohort Outcomes

2007 - 2012

Data Analyzed as of March 2023

Target – PhD graduation rate of 70% – Target Met

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | | **Graduated with PhD** | | **Graduated with M.S.** | | **Left without Degree** | |
| **Female** | **Male** | **Female** | **Male** | **Female** | **Male** | **Female** | **Male** |
| 2007 | 53 | 36 | 44 (83%) | 28 (78%) | 5 (9%) | 4 (11%) | 4 (8%) | 4 (11%) |
| 2008 | 37 | 39 | 27 (73%) | 35 (90%) | 4 (11%) | 1 (2%) | 6 (16%) | 3 (8%) |
| 2009 | 57 | 39 | 43 (75%) | 34 (87%) | 6 (11%) | 0 (0%) | 8 (14%) | 5 (13%) |
| 2010 | 56 | 48 | 48 (86%) | 39 (82%) | 2 (4%) | 2 (4%) | 6 (10%) | 7 (15%) |
| 2011 | 44 | 24 | 32 (73%) | 21 (88%) | 1 (2%) | 1 (4%) | 11 (25%) | 2 (8%) |
| 2012 | 27 | 29 | 32 (84%) | 28 (96%) | 1 (3%) | 0 (0%) | 5 (13%) | 1 (3%) |
| 2013 | 27 | 26 | 24 (89%) | 24 (83%) | 1 (3%) | 1 (4%) | 2 (7%) | 2 (7%) |
| 2014 | 29 | 23 | 25 (86%) | 19 (83%) | 2 (7%) | 1 (4%) | 2 (7%) | 3 (13%) |

**Table 8.1.35.** Graduate Rate by Race

Ph.D. Student Cohort Outcomes 2007 - 2012

Data Analyzed as of March 2023

Target – Graduate rate of 70% – Target Met for entering class of 2012 and 2013. Not met for entering class 2014.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Total Students Matriculated** | | | | | | | **Graduated with a PhD** | | | | | | |
| **Entry Year** | **American Indian** | **Asian** | **Black** | **Hispanic** | **International** | **White** | **Unknown** | **American Indian** | **Asian** | **Black** | **Hispanic** | **International** | **White** | **Unknown** |
| 2007 |  | 9 | 2 | 12 | 36 | 30 |  |  | 7 (78%) | 1 (50%) | 11 (92%) | 31 (86%) | 22 (73 %) |  |
| 2008 |  | 9 | 3 | 7 | 33 | 24 |  |  | 9 (100%) | 1 (33%) | 5(72%) | 29 (88%) | 18 (75%) |  |
| 2009 |  | 6 | 1 | 11 | 41 | 37 |  |  | 4 (67%) | 0 (0%) | 11 (100%) | 32 (78%) | 30(81%) |  |
| 2010 | 1 | 9 | 3 | 10 | 41 | 39 | 1 | 1 (100%) | 9 (100%) | 3 (100%) | 9 (90%) | 35 (86%) | 29 (74%) | 1 (100%) |
| 2011 |  | 4 | 1 | 8 | 31 | 20 | 4 |  | 2 (50%) | 1 (100%) | 7 (88%) | 28 (90%) | 12 (60%) | 3 (75%) |
| 2012 | 0 | 7 | 1 | 5 | 33 | 18 | 2 | 0 (0%) | 5 (71%) | 1 (100%) | 5 (100%) | 29 (88%) | 17 (94%) | 2 (100%) |
| 2013 | 1 | 4 | 3 | 6 | 5 | 29 | 5 | 1 (100%) | 4 (100%) | 3 (100%) | 5 (83%) | 4 (80%) | 26 (90%) | 5 (100%) |
| 2014 | 0 | 1 | 3 | 7 | 17 | 22 | 2 | 0 (0%) | 0 (0%) | 2 (67%) | 5 (71%) | 16 (94%) | 20 (91%) | 1 (50%) |
|  | | | | | | | | | | | | | | |
|  | **Total Students Matriculated** | | | | | | | **Graduated with an MS** | | | | | | |
| **Entry Year** | **American Indian** | **Asian** | **Black** | **Hispanic** | **International** | **White** | **Unknown** | **American Indian** | **Asian** | **Black** | **Hispanic** | **International** | **White** | **Unknown** |
| 2007 |  | 9 | 2 | 12 | 36 | 30 |  |  | 2 (22%) | 1 (50%) | 0 (0%) | 3 (8%) | 3 (10%) |  |
| 2008 |  | 9 | 3 | 7 | 33 | 24 |  |  | 0 (0%) | 2 (67%) | 1 (14%) | 0 (0%) | 2 (8%) |  |
| 2009 |  | 6 | 1 | 11 | 41 | 37 |  |  | 1 (17%) | 0 (0%) | 0 (0%) | 4 (10%) | 1 (3%) |  |
| 2010 | 1 | 9 | 3 | 10 | 41 | 39 | 1 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (2%) | 3 (8%) | 0 (0%) |
| 2011 |  | 4 | 1 | 8 | 31 | 20 | 4 |  | 0 (0%) | 0 (0%) | 0 (0%) | 1 (3%) | 0 (0%) | 1 (25%) |
| 2012 | 0 | 7 | 1 | 5 | 33 | 18 | 2 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (3%) | 0 (0%) | 0 (0%) |
| 2013 | 1 | 4 | 3 | 6 | 5 | 29 | 5 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 1 (20%) | 0 (0%) | 0 (0%) |
| 2014 | 0 | 1 | 3 | 7 | 17 | 22 | 2 | 0 (0%) | 1 (100%) | 0 (0%) | 1 (14%) | 0 (0%) | 1 (5%) | 0 (0%) |
|  | | | | | | | | | | | | | | |
|  | **Total Students Matriculated** | | | | | | | **Left without degree** | | | | | | |
| **Entry Year** | **American Indian** | **Asian** | **Black** | **Hispanic** | **International** | **White** | **Unknown** | **American Indian** | **Asian** | **Black** | **Hispanic** | **International** | **White** | **Unknown** |
| 2007 |  | 9 | 2 | 12 | 36 | 30 |  |  | 0 (0%) | 0 (0%) | 1 (8%) | 2 (6%) | 5 (17%) |  |
| 2008 |  | 9 | 3 | 7 | 33 | 24 |  |  | 0 (0%) | 0 (0%) | 1 (14%) | 4 (12%) | 4 (17%) |  |
| 2009 |  | 6 | 1 | 11 | 41 | 37 |  |  | 1 (17%) | 1 (100%) | 0 (0%) | 5 (12%) | 6 (16%) |  |
| 2010 | 1 | 9 | 3 | 10 | 41 | 39 | 1 | 0 (0%) | 0 (0%) | 0 (0%) | 1 (10%) | 5 (12%) | 7 (18%) | 0 (0%) |
| 2011 |  | 4 | 1 | 8 | 31 | 20 | 4 |  | 2 (50%) | 0 (0%) | 1 (12%) | 2 (6%) | 8 (40%) | 0 (0%) |
| 2012 | 0 | 7 | 1 | 5 | 33 | 18 | 2 | 0 (0%) | 2 (29%) | 0 (0%) | 0 (0%) | 3 (9%) | 1 (6%) | 0 (0%) |
| 2013 | 1 | 4 | 3 | 6 | 5 | 29 | 5 | 0 (0%) | 0 (0%) | 0 (0%) | 1 (16%) | 0 (0%) | 3 (10%) | 0 (0%) |
| 2014 | 0 | 1 | 3 | 7 | 17 | 22 | 2 | 0 (0%) | 0 (0%) | 1 (33%) | 1 (14%) | 1 (6%) | 1 (5%) | 1 (50%) |

**Table 8.1.36.** Length of Time to Completion

Specialized Master’s in Genetic Counseling

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – Time to Degree of <2 years – Target met

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | **Continuing in Program** | | **Graduated with M.S.** | | | | **Left without Degree** | |
| **#** | **percent** | **#** | **percent** | **Median\*** | **Average\*** | **#** | **percent** |
| 2017 | 10 | - | - | 10 | 100 | 1.7 | 1.7 | - | - |
| 2018 | 10 | - | - | 10 | 100 | 1.8 | 1.8 | - | - |
| 2019 | 10 | - | - | 10 | 100 | 1.7 | 1.7 | - | - |
| 2020 | 10 | - | - | 10 | 100 | 1.7 | 1.7 | - | - |

*\* Indicates Average or Median time to degree in years*

**Table 8.1.37.** Graduate Rate by Gender

Specialized Master’s in Genetic Counseling

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of August 2022

Target – SMS Genetic Counseling graduation rate of 70% – Target Met

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Entry Year | Total Students Matriculated | | Graduated with an MS | | Left without Degree | |
| Female | Male | Female | Male | Female | Male |
| 2017 | 10 | - | 10 (100%) | - | - | - |
| 2018 | 8 | 2 | 8 (100%) | 2 (100%) | - | - |
| 2019 | 9 | 1 | 9 (100%) | 1 (100%) | - | - |
| 2020 | 10 | - | 10 (100%) | - | - | - |

**Table 8.1.38.** Graduate Rate by Race

Specialized Master’s in Genetic Counseling

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – Graduate rate of 70% – Target Met

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | | | | | **Graduated with an MS** | | | | | **Left without Degree** | | | | |
| **Asian** | **Hispanic** | **White** | **International** | **Unknown** | **Asian** | **Hispanic** | **White** | **International** | **Unknown** | **Asian** | **Hispanic** | **White** | **International** | **Unknown** |
| 2017 |  | 2 | 7 | 1 |  |  | 2 (100%) | 7 (100%) | 1 (100%) |  |  |  |  |  |  |
| 2018 |  | 1 | 8 | 1 |  |  | 1 (100%) | 8 (100%) | 1 (100%) |  |  |  |  |  |  |
| 2019 | 1 |  | 7 |  | 2 | 1 (100%) |  | 7 (100%) |  | 2 (100%) |  |  |  |  |  |
| 2020 | 1 | 1 | 7 | 1 |  | 1 (100%) | 1 (100%) | 7 (100%) | 1 (100%) |  |  |  |  |  |  |

**Table 8.1.39.** Length of Time to Completion

Specialized Master’s in Medical Physics

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – Time to Degree of <3 years – Target met

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | **Continuing in Program** | | **Graduated with M.S.** | | | | **Left without Degree** | |
| **#** | **percent** | **#** | **percent** | **Median\*** | **Average\*** | **#** | **percent** |
| 2017 | 2 | - | - | 2 | 100 | - | 2.0 | - | - |
| 2018 | 1 | - | - | 1 | 100 | - | 3.2 | - | - |
| 2019 | 1 | - | - | 1 | 100 | - | 2.0 | - | - |
| 2020 | 1 | 1 | 100 | - | - | - | - | - | - |

*\* Indicates Average or Median time to degree in years*

**Table 8.1.40.** Graduate Rate by Gender

Specialized Master’s in Medical Physics

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – SMS Medical Physics graduation rate of 70% – Target Met

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Entry Year | Total Students Matriculated | | Continuing in Program | | Graduated with an MS | | Left without Degree | |
| Female | Male | Female | Male | Female | Male | Female | Male |
| 2017 | 1 | 1 | - | - | 1 (100%) | 1 (100%) | - | - |
| 2018 | - | 1 | - | - | - | 1 (100%) | - | - |
| 2019 | 1 | - | - | - | 1 (100%) | - | - | - |
| 2020 | - | 1 | - | 1 (100%) | - | - | - | - |

**Table 8.1.41.** Graduate Rate by Race

Specialized Master’s in Medical Physics

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – Graduate rate of 70% – Target Met

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | | **Graduated with an MS** | | **Continuing in Program** | | **Left without Degree** | |
| **White** | **International** | **White** | **International** | **White** | **International** | **White** | **International** |
| 2017 | 2 |  | 2 (100%) |  |  |  |  |  |
| 2018 |  | 1 |  | 1 (100%) |  |  |  |  |
| 2019 | 1 |  | 1 (100%) |  |  |  |  |  |
| 2020 | 1 |  |  |  | 1 (100%) |  |  |  |

**Table 8.1.42.** Length of Time to Completion

Master’s Degree in Biomedical Sciences

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – Time to Degree of <3 years – Target met

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | **Continuing in Program** | | **Graduated with M.S.** | | | | **Left without Degree** | |
| **#** | **percent** | **#** | **percent** | **Median\*** | **Average\*** | **#** | **percent** |
| 2017 | 21 | - | - | 20 | 95.0 | 2.5 | 2.5 | 1 | 5.0 |
| 2018 | 19 | - | - | 15 | 79.0 | 2.5 | 2.6 | 4 | 21.0 |
| 2019 | 23 | 2 | 8.7 | 18 | 78.0 | 2.2 | 2.3 | 3 | 13.0 |
| 2020 | 17 | 8 | 47.0 | 8 | 47.0 | 2.0 | 2.0 | 1 | 6.0 |

*\* Indicates Average or Median time to degree in years*

**Table 8.1.43.** Graduate Rate by Gender

Master’s Degree in Biomedical Sciences

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – MS Biomedical Sciences graduation rate of 70% – Target Not Met

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Entry Year | Total Students Matriculated | | Continuing in Program | | Graduated with an MS | | Left without Degree | |
| Female | Male | Female | Male | Female | Male | Female | Male |
| 2017 | 12 | 9 | - | - | 11 (92%) | 9 (100%) | 1 (8%) | - |
| 2018 | 10 | 9 | - | - | 9 (90%) | 6 (67%) | 1 (10%) | 3 (33%) |
| 2019 | 16 | 7 | - | 2 | 14 (87%) | 4 (57%) | 2 (12%) | 1 (14%) |
| 2020 | 10 | 7 | 4 (40%) | 4 (57%) | 5 (50%) | 3 (43%) | 1 (10%) | - |

**Table 8.1.44.** Graduate Rate by Race

Master’s Degree in Biomedical Sciences

Student Cohort Outcomes 2017 - 2020

Data Analyzed as of March 2023

Target – Graduate rate of 70% – Target Not Met

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | | | | | | **Graduated with an MS** | | | | | |
| **Asian** | **Black** | **Hispanic** | **White** | **International** | **Unknown** | **Asian** | **Black** | **Hispanic** | **White** | **International** | **Unknown** |
| 2017 | 7 | 1 | 2 | 4 | 7 |  | 6 (86%) | 1 (100%) | 2 (100%) | 4 (100%) | 7 (100%) |  |
| 2018 | 6 |  | 3 | 2 | 8 |  | 5 (83%) |  | 2 (67%) | 1 (50%) | 7 (88%) |  |
| 2019 | 6 | 3 | 1 | 4 | 9 |  | 6 (100%) | 2 (67%) |  | 3 (75%) | 7 (78%) |  |
| 2020 | 1 | 2 | 1 | 10 | 2 | 1 |  |  |  | 6 (60%) | 1 (50%) | 1 (100%) |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | | | | | | **Left without Degree** | | | | | |
| **Asian** | **Black** | **Hispanic** | **White** | **International** | **Unknown** | **Asian** | **Black** | **Hispanic** | **White** | **International** | **Unknown** |
| 2017 | 7 | 1 | 2 | 4 | 7 |  | 1 (14%) |  |  |  |  |  |
| 2018 | 6 |  | 3 | 2 | 8 |  | 1 (16%) |  | 1 (33%) | 1 (50%) | 1 (12%) |  |
| 2019 | 6 | 3 | 1 | 4 | 9 |  |  |  |  | 1 (25%) | 2 (22%) |  |
| 2020 | 1 | 2 | 1 | 10 | 2 | 1 |  |  |  | 1 (10%) |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Entry Year** | **Total Students Matriculated** | | | | | | **Continuing in Program** | | | | | |
| **Asian** | **Black** | **Hispanic** | **White** | **International** | **Unknown** | **Asian** | **Black** | **Hispanic** | **White** | **International** | **Unknown** |
| 2017 | 7 | 1 | 2 | 4 | 7 |  |  |  |  |  |  |  |
| 2018 | 6 |  | 3 | 2 | 8 |  |  |  |  |  |  |  |
| 2019 | 6 | 3 | 1 | 4 | 9 |  |  | 1 (33%) | 1 (100%) |  |  |  |
| 2020 | 1 | 2 | 1 | 10 | 2 | 1 | 1 (100%) | 2 (100%) | 1 (100%) | 3 (30%) | 1 (50%) |  |

*Certification Examination* - The vast majority of GSBS graduates receive the M.S. or Ph.D. degree in one of the traditional biomedical areas, and thus do not sit for any type of licensing examinations. Graduates of the M.S. Program in Genetic Counseling take a board exam to obtain certification from the American Board of Genetic Counseling. The overall pass rate of GSBS graduates is 100 percent which is higher than the national average of 82 percent. GSBS is meeting its board exam pass rate for genetic counseling of 85 percent. The target was set at 85 percent because our data shows we have a high board exam pass rate for genetic counseling. Should any board exam pass rate for genetic counseling drop below a threshold of 82 percent, corrective action would be taken.

**Table 8.1.45.** Graduates of the Specialized M.S. in Genetic Counseling

Performance on the American Board of Genetic Counseling Certification Exam (2019-2022)

Target – 85 percent Pass Rate – Target met for years 2019-2022

|  |  |
| --- | --- |
| **Year** | **Pass Rate** |
| 2019 | 90% |
| 2020 | 100% |
| 2021 | 85% |
| 2022 | 89% |

Since Medical Physicists do not have to be licensed in all states, pass rates on certification exams are not used as a metric of student achievement. Instead, the Graduate School tracks employment data for graduates who receive an M.S. in Medical Physics. The M.S. target rate for employment in Medical Physics is set at 100%, with a threshold of 80% set for corrective action.

**Table 8.1.46**. Graduates of the Specialized M.S. in Medical Physics

Employment within 1 year of Graduation

Target – 100 percent of graduates employed within 1 year of graduation within the field or continuing with graduated studies within the field – target met.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Occupation Type | **2019** | **2020** | **2021** | **2022** |
| Therapy Residency | 1 |  |  |  |
| Diagnostic Residency |  |  |  |  |
| Junior Medical Physicist & Faculty |  |  |  |  |
| Further Graduate Study | 1 |  | 1 |  |
| Job in Industry |  |  |  |  |
| **Number of Graduates** | 2 |  | 1 |  |

*Job Placement Rates* - As is typical of Level I research institutions, many GSBS Ph.D. graduates do postdoctoral research as the next step in their career, and with the rarest of exceptions, all doctoral graduates are able to find postdoctoral positions, many in prestigious institutions around the country and world. In the 2017 Alumni Survey [**5**] (224 alumni responding, graduating between years 2006-2017), it was found that 97.8% of alumni responding were employed. The 2017 alumni survey indicated overwhelmingly that GSBS graduates feel the school's programs prepared them well for their chosen careers. 83.9% of alumni responding indicated that their education at GSBS was either “very effective” or “effective” in preparing them for their first position after graduation.

It is mandatory that graduating students complete an exit survey that includes questions about how well they feel their coursework and research training have prepared them for their chosen careers. The overwhelming majority “agrees" or "agrees strongly" that GSBS course work and training has successfully prepared them for their chosen careers. GSBS also has an active Alumni Association that receives continual communications from the school and provides valuable feedback that is continually positive regarding course work quality, training received, and preparation for careers.

*Student Publications and Presentations and Awards* - Each year, the GSBS reports to the THECB, the average number of publications/presentations for all Ph.D. students in a calendar year. Overall, the average number of publications/presentations for all GSBS students was 1.4 in 2016, 1.8 in 2017 and 2.7 in 2018. This indicates students are highly successful at publishing their graduate research and meets the target established by the GSBS of at least one student publication. The 2017 Alumni Survey found that 89.6 percent of respondents have either authored or co-authored refereed original research articles. During their career, 30% of respondents received an award from their institution or employer, 13% received an award from a professional society and 6 percent received an award from a community organization. Nine percent have been issued patents on a science or technology-related discovery.