

SENIOR THESIS RESEARCH AT BRANDEIS UNIVERSITY, 2017-2020

March 21, 2021

The newly created <u>Undergraduate Research and Creative Collaborations</u> (URCC) office within the School of Arts & Sciences at Brandeis is tasked with measuring and promoting original research and creative production as a critical component of the undergraduate curriculum. One way students get involved in research is by writing a senior thesis. This project typically involves original research and dedicated mentorship with a faculty member over the course of a full academic year.

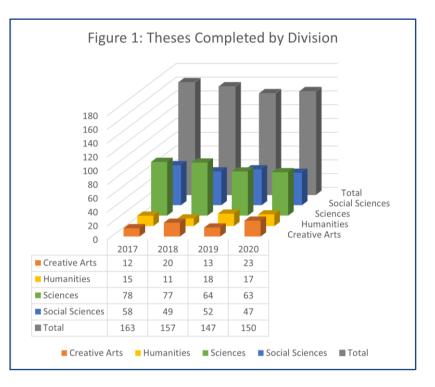
To get a sense of how many students are completing a senior thesis and in which academic fields, we compiled records of senior thesis completion by division and major over the past four academic years (from AY 2016-2017 to AY 2019-2020; for the purposes of simplicity on the following graphs, academic years are referred to by the calendar years in which they concluded).

Keep in mind that the senior thesis is only one avenue through which a department's undergraduates

may get hands-on research experience. Many of the departments listed in this report that have low levels of thesis completion (especially those in the physical sciences) provide other kinds of research experiences that the URCC has documented, from laboratory work to direct collaborations with faculty. Our office is dedicated to partnering with any divisions or departments that seek to expand opportunities for undergraduates to participate in diverse, meaningful encounters with original inquiry.

Variation by Academic Division

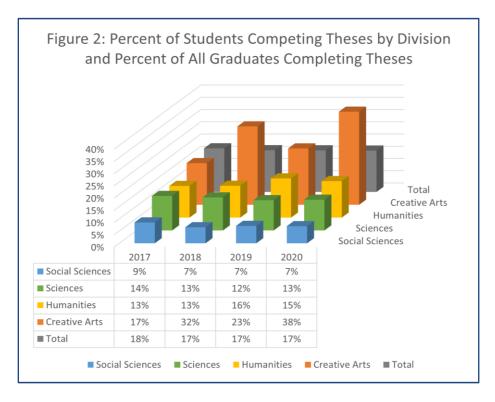
Figure 1 shows the total number of senior theses completed in each academic year.¹ These numbers, which



¹ This number is only an estimate, as Brandeis does not centrally record the number of theses written. We relied on figures of student enrollments in 99-numbered courses (which are typically used for senior thesis research only) from the university registrar to estimate the number of students who completed a thesis in any given academic year. (One exception is that FA 96a and FA 96b were included due to the customized way in which Fine Arts handles thesis projects for two separate majors within the same departmental designation.) We calculated the total number of enrollments in each subject listing and divided the number by two (rounding up to the nearest

are also available in tabular form under each graph, are divided by academic division (creative arts, humanities, sciences, and social sciences).² There is a small decrease in the total numbers of theses completed since 2017 across most divisions.

Figure 2 displays the same data as a fraction of all degrees awarded by division in each academic year.³ While the largest number of students who major in the sciences complete senior theses, the largest percent of those within a single division who complete a thesis are in the creative arts. Between 17% and 18% of all students complete a thesis annually.⁴



integer), as students are typically required to complete two semesters of thesis research, one in the fall and one in the spring.

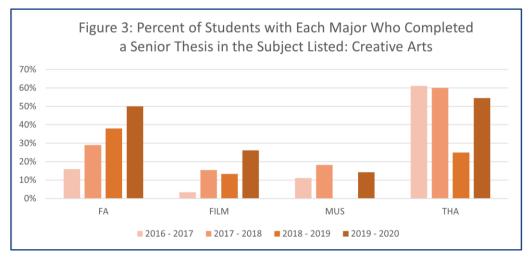
² Data were not available for the number of theses completed for the independent interdisciplinary major, which is counted as separate from the four main divisions, although students completing this program (between nine and eighteen each year from 2017-2020) must complete either a thesis or a research course as a capstone project.

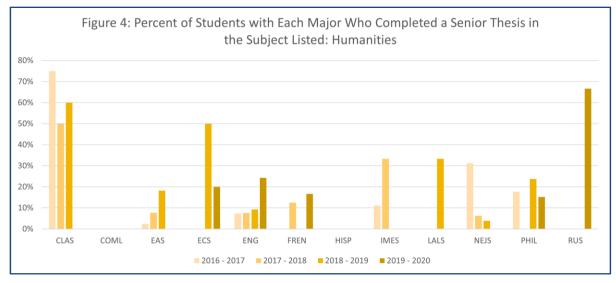
³ These figures were collected from the university registrar's records, which are also publicly available on the Brandeis factbook. Note that the spatial order in which divisions are listed is changed from Figure 1 to improve visibility of all divisions; however, the colors for each division are consistent between the graphs. Also note that departments and programs are included with the division under which they were organized as of Fall 2020, even if they previously were included in another division (e.g., psychology is included in the Division of Science, even though in some of the years listed it was associated with the Division of Social Sciences).

⁴ This calculation (which is represented as the "total" bars in Figure 2) was found with a different method than the division-by-division data in the same figure. To find this overall percent of students who completed theses, we divided the estimated number of senior theses written each year by the total number of *degree recipients* for each academic year. The percentages for each division are based on dividing the number of senior theses per major by the total number of *majors*. Since many Brandeis undergraduates have multiple majors, the total number of majors exceeds the number of students.

Variation by Academic Major

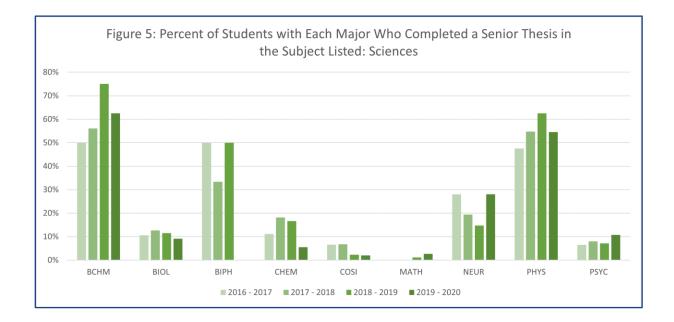
There can be significant variation within divisions, just as there is between them. For this reason, we have broken down these measures of senior thesis completion by major within each division. Figures 3 through 6 show the percent of students in each department and program who completed a thesis. Departments and programs not included did not have any students complete theses during these years.⁵ In each chart, we report the change in percentage of students completing a thesis from AY 2016-2017 to AY 2019-2020, with shades of the columns indicating year, from lighter to darker moving chronologically.⁶

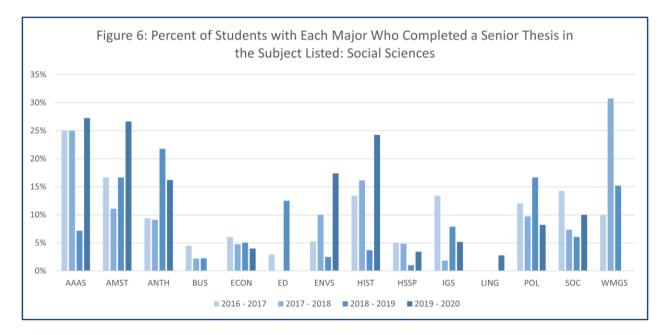




⁵ The Creativity, the Arts and Social Transformation, History of Ideas, South Asian Studies, Genetic Counseling, Asian American and Pacific Islander Studies, Religious Studies, Journalism, Legal Studies, Peace, Conflict and Coexistence Studies, Medieval and Renaissance Studies, the Hornstein Program, and the University Writing Program are formally designated interdepartmental programs that did not offer an undergraduate major in AY 2017-2020 and are therefore excluded from these figures. Also excluded from the tables are subject designations for language study programs in Arabic, Chinese, Korean, and Japanese, which likewise do not offer independent majors, although they are housed within larger departments at Brandeis.

⁶ Full names of each major appear in the tables that follow these graphs.





These data indicate only the percentage of students with each major who completed a thesis *in that department*. Since many Brandeis students (more than 50% of each graduating class between 2017 and 2020) graduate with multiple majors, some thesis writers may be counted only under a single department, even if they relied on interdisciplinary resources to complete their projects (as is often the case in both the sciences and humanities). Moreover, it is important to note that these graphs represent the total *percentages* of majors who have completed a thesis. As in the division graphs in the previous section, these do not account for different numbers of total degrees awarded in each field.

To give a clearer sense of the total number of theses produced, the following tables include how many estimated theses were written in each major from 2017 to 2020.⁷ Tables 1 through 4 show the number of students who completed theses in each department and program and are the data on which the preceding figures are based.

Major/Department	2017 Theses	2018 Theses	2019 Theses	2020 Theses	Average # of Theses
					Annually
Fine Arts (FA)	4	7	5	10	6.5
Film, Television and	1	2	2	6	2.75
Interactive Media (FILM)					
Music (MUS)	1	2	0	1	1
Theatre Arts (THA)	6	9	6	6	6.75

Table 1: Number of Students Who Completed Theses in Creative Arts Division Majors, 2017-2020

Table 2: Number of Students V	/ho Completed Theses in Humaniti	es Division Majors, 2017-2020

Major/Department	2017 Theses	2018 Theses	2019 Theses	2020 Theses	Average # of Theses Annually
Classical Studies (CLAS)	3	2	3	0	2
Comparative Literature and Culture (COML)	0	1	0	0	0.25
East Asian Studies (EAS)	1	2	2	0	1.25
European Cultural Studies (ECS)	0	0	1	1	0.5
English (ENG)	3	3	4	9	4.75
French (FREN)	0	1	0	1	0.5
Hispanic Studies (HISP)	0	0	0	0	0
Islamic and Middle Eastern Studies (IMES)	1	1	0	0	0.5
Latin American and Latino Studies (LALS)	1	0	2	0	0.75
Near Eastern and Judaic Studies (NEJS)	3	1	1	0	1.25
Philosophy (PHIL)	3	0	5	4	3
Russian (RUS)	0	0	0	2	0.5

⁷ Low numbers of students help account for sudden, seemingly dramatic changes in the percentages of thesis completion each year, as some years only have a handful of students awarded a degree in the field.

Major/Department	2017 Theses	2018 Theses	2019 Theses	2020 Theses	Average # of Theses
	Theses	Theses	Theses	Theses	Annually
Biochemistry (BCHM)	14	14	14	15	14.25
Biology (BIOL)	16	19	16	14	16.25
Biological Physics (BIPH)	4	1	1	0	1.5
Chemistry (CHEM)	4	4	5	2	3.75
Computer Science (COSI)	6	7	2	2	4.25
Mathematics (MATH)	0	0	1	2	0.75
Neuroscience (NEUR)	16	11	8	12	11.75
Physics (PHYS)	10	12	10	6	9.5
Psychology (PSYC)	8	9	7	10	8.5

Table 3: Number of Students Who Completed Theses in Science Division Majors Each Year, 2017-2020

Table 4: Number of Students Who Completed Theses in Social Science Division Majors Each Year,2017-2020

Major/Department	2017	2018	2019	2020	Average # of
	Theses	Theses	Theses	Theses	Theses
					Annually
African and African	3	4	1	3	2.75
American Studies (AAAS)					
American Studies (AMST)	2	2	2	4	2.5
Anthropology (ANTH)	3	3	9	6	5.25
Business (BUS)	6	3	3	0	3
Economics (ECON)	10	9	10	6	8.75
Education (ED)	1	0	2	0	0.75
Environmental Studies	1	3	1	4	2.25
(ENVS)					
History (HIST)	6	5	1	8	5
Health: Science, Society	6	5	1	3	3.75
and Policy (HSSP)					
International and Global	8	1	5	3	4.25
Studies (IGS)					
Linguistics (LING)	0	0	0	1	0.25
Politics (POL)	7	7	11	6	7.75
Sociology (SOC)	4	3	2	3	3
Women's, Gender and	1	4	4	0	2.25
Sexuality Studies (WMGS)					