

# **UNDERGRADUATE RESEARCH AND THE THESIS MODEL AT YESHIVA UNIVERSITY**

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By way of introduction, Yeshiva University was founded in 1897 as an Orthodox Jewish rabbinical seminary for men. Its undergraduate college, Yeshiva College, the first such institution founded for the study of the liberal arts and sciences under Jewish auspices, was established in 1928, its undergraduate equivalent for women, Stern College, in 1954. Over the years, Yeshiva University has come to comprise not only its undergraduate divisions, but graduate and professional schools in law, social work, Jewish studies, medicine, education, and business located both in the Bronx and Manhattan. And then there is the Yeshiva University Museum, which is housed at the Center for Jewish History. At the campus where I work in the Washington Heights section of Upper Manhattan, there are approximately 1200 students, 850 of whom are Yeshiva College undergraduates.

The Jay and Jeanie Schottenstein Honors Program at Yeshiva College was established in 1999. The Admissions Office admits generally 55-60 students per year and all arrive on campus with an Honors scholarship, the amount of which varies depending on the qualifications of each student. The requirements for graduation from the Honors Program are as follows: four years of on-campus residence, 108 on-campus credits, the completion of at least eight specifically designated Honors courses (which means two per year in order to maintain a Honors scholarship), the maintenance of a minimum 3.5 GPA and the completion of a Honors thesis. For those who complete all of these requirements, their diplomas make specific mention of the fact that they have graduated not only from Yeshiva College, but from the Honors Program as well.

The Honors Program is not a separate honors college, i.e. Honors courses are open to all students in Yeshiva College with the permission of both a course instructor and the directors of the Honors Program. Over the past three years, the number of non-Honors students registering for Honors courses has risen from approximately 300 to 700 and that represents, in part, increasing demand. We are very pleased both by the number and range of Honors courses which we offer each year and the fact that so many non-Honors students register for them.

The thesis process usually begins with a meeting with third-year students early in the fall semester. However, it is not uncommon to contact students even before that occasion when we feel that a proactive effort is in order early, so to speak, in the game. We try to "sell," as it were, the idea of the Honors thesis as both a distinctly satisfying capstone of their academic obligations at Yeshiva College as well an achievement which will further increase their opportunities in the worlds of graduate school and career choices. Now and then, we have students who never considered writing a thesis (and thus not completing the Program) until we contacted them and then decide to do so precisely because we reached out, scheduled an individual meeting and convinced them of the personal and career/professional advantages of writing one. Some take the bait, others do not. The goal at this point in the process is to find

out in which subject area a student is especially interested, how that interest might be the basis of a thesis, and who among the faculty might serve as official mentor.

Try as we might, not all students decide to write a thesis. Some students take the scholarship offered them, but stay only three years, do not write a thesis, get their diploma and go on to further schooling or the working world. Others do the same, but stay the full four years and still choose not to write the thesis and move on. At this point in the history of the Honors Program, those who actually finish number perhaps 25-30 annually. In 2013, there were 30 Honors theses completed; in 2014, 28; and this year, we expect 23. The annual numbers vary and we are always very happy when they increase, but there is no guarantee no matter how much "campaigning" we do!

By and large, the greatest number of theses are written either by pre-med majors in biology, chemistry and physics, or students in those fields who intend to go on to advanced graduate training, or M.D./Ph.D. programs. It is often the case that a thesis will grow out of two or three years' experience of working in a particular professor's laboratory and in that sense, the science majors have the advantage.

There are a fair number of theses submitted each year in PSY and Jewish studies, many fewer in economics, sociology, history and English. As opposed to BIO, MAT, CHE and PHY, there are fewer majors in the latter fields, the departments are smaller in terms of faculty, and thus fewer theses come from them. Year in and year out, there may be one and sometimes two theses which I would describe as "crossovers," e.g. a student who is a computer science major but writes a thesis in history, or a mathematics major who presents a piano recital which, along with a detailed written program, fulfills the goals of the thesis process. And very occasionally, we have students who write a novella, a collection of short stories or even a play and those too serve as legitimate thesis efforts. And rare though they are, we welcome and encourage theses in music and creative writing because such encourage an increased intellectual diversity and flexibility in our Program. In terms of percentages, about 60-65% of our Honors theses are in BIO, CHE, and PHY.

Whatever the academic field and whatever the topic, the highest goals of the thesis experience are that each student learns what it means to work one-on-one with a faculty mentor and further develops and refines the skills of research, writing, interpreting data, analyzing texts, synthesizing the fruits of one's work, the capacity to work independently, and finally, being able to explain a very specific and/or technical subject to a larger audience.

Regarding mentors, it is normally the case that they are drawn from the regular Yeshiva College faculty. However, it is not uncommon for students to work with mentors who are affiliated, for example, at the Albert Einstein College of Medicine, Mount Sinai Hospital's medical school, Columbia University, New York University and the Graduate Center of the City University of New York. In 2013-2014, one history major now at NYU Law School wrote a thesis on an aspect of American Indian history and his mentor was a Mellon Fellow up at Cornell University. It turned out to be a very successful collaboration and the thesis itself was very well done. If a Yeshiva College mentor cannot be found, we sometimes recommend external mentors. And there are cases where students have found a place in a lab at another institution on their own, as one did at Columbia medical school who will finish his thesis in BIO next January. He will then move on to an internship at M.D. Anderson in Houston.

In the fall of their fourth year, prospective thesis writers are expected to submit a formal proposal which includes both a summary of what they intend to do and a preliminary bibliography. The proposal should convincingly demonstrate the originality and potential depth of research on any thesis topic. Once a proposal has been approved by both the thesis mentor and an anonymous (for the student) reviewer who can comment on the intellectual soundness of the topic, the student may then register for what are called the Honors Seminars. The seminars total five credits, are taken Pass/Fail and in the fall semester focus on research and in the spring on writing. They meet every three or four weeks and are led by a member of the English Department, above all because whether the topic is in CHE or ENG, for example, the final product must be clear in terms of organization and grammar, etc. With Honors theses, there are no minimum or maximum page limits. How long a thesis is depends solely on the topic and what the student and his mentor decide, e.g. a thesis in MAT or CHE could be 25-30 pp. in length, in HIS, 35-40 pp. Beyond a template for the title page, there are generally no special formats which students must follow beyond submitting an electronic version in Pdf.

Though a fair number finish by the time of the May commencement, some thesis writers take the summer following the end of their fourth year to complete their thesis, or if they intend to be granted a January diploma, finish in the fall. However, all are expected to present a five-seven minute *précis* of their work at a celebratory and festive Honors Program dinner in May each year which coincides with commencement and related events. In addition to teaching research and writing skills, the Honors Seminars also help each thesis writer to prepare and polish their presentations and make sure that each summarizes the objectives and methodology of their work in non-technical language (which often stands in marked contrast to the actual title and text of their theses, especially in the sciences, which is to be expected) which may be understood by any layperson. In addition to thesis writers and their mentors, family members, other faculty, some administrators and even students in their first, second or third year in the Honors Program attend. Depending on their numbers, the presenters are divided into two or three groups, meet in separate rooms, and then everyone re-convenes for dessert and concluding remarks. Additionally, the dinner is the occasion for the award of prizes for the best theses from the previous year. This year, we awarded two prizes in the humanities and social sciences, and two in the sciences.

Once a thesis has been read and graded by both a mentor and a second reader, students are contacted regarding whether or not they give permission for their effort to be deposited in electronic form in Yeshiva University's Gottesman Library. Most give their permission and thus make their work available for public examination.