



# Introducing Minors to Yale College

Steven Oreintale, JE '21

## Table of Contents

Overview.....	3
Background.....	3
Fall 2018 YCC Survey.....	4
Focus Group Findings.....	5
Recommendations.....	6

## Overview

Yale College is an academic institution focused on undergraduate teaching and learning. Students enrolled in the college have the opportunity to have a traditionally liberal arts experience within the greater context of a research university. In this respect, students have the ability to choose from more than eighty majors, all with a liberal arts focus. By offering a wide array of subjects to study, students have the freedom to pursue various academic interests. While students can graduate with a single major or a double major, they are unable to graduate with a minor.

Recently, Yale College has started a certificate program in Language Studies and Statistics and Data Science. These certificates are quasi minors, and offer students a greater degree to which they can customize their Yale academic experience. Additionally, Yale has several Multidisciplinary Academic Programs (MAPS) in a number of fields, including education studies, energy studies, global health studies, and human rights studies. However, these programs are application-based, limiting the number of students that are able to participate in them. Expanding the academic opportunities of students through the addition of minors would allow students to experience a greater freedom in their learning.

## Background

Currently, Yale College does not offer an academic minor program for students. As previously stated, there are several fields in which students can obtain a distinction that is similar to a minor -- through the newly established certificate program (languages and statistics and data science) as well as through the Multidisciplinary Academic Programs. These programs require students to take at least four intermediate to advanced classes, depending on the program. There are already many students interested in pursuing these subjects more in depth.

Many of Yale's peer institutions offer some form of academic minor, whether they are minors, certificates, or secondary field. These peer institutions allow their students greater flexibility in their learning, as well as the possibility to develop a deeper understanding in another subject, whether related, unrelated, or interdisciplinary. At Stanford University, students are able to minor in seventy-six different subjects, including minors from established major departments, as well as in fields without an established major program. Each department or program has jurisdiction in setting up the requirements of the minor, as long as each minor requires at least six courses.

Princeton University allows students to obtain a certificate, which is similar to a minor. Students are able to work towards a single certificate in more than 55 fields. These fields are included in departments, but may also be in interdisciplinary fields. In order to meet the requirements for the certificate, students must complete the required courses, in addition to a senior thesis or another form of significant independent work. Harvard College offers students the opportunity to pursue a secondary field. These options are limited to established fields and departments that students can major in. Each department establishes its own guidelines that must be met.

## Fall 2018 YCC Survey

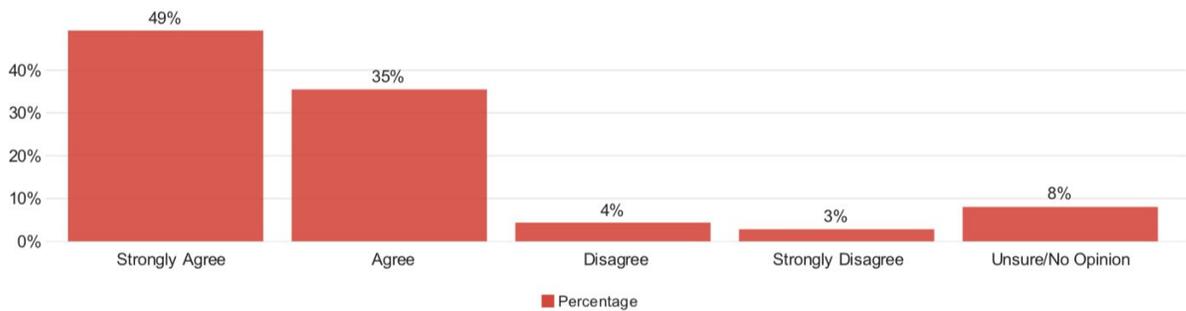
Past data from the YCC Survey provides significant insights into students' opinions on the implementation of minors in the academic program of Yale College. Figure 1 shows that almost 85% of respondents strongly agreed or agreed that they would be interested in having a minor if Yale were to offer them. This can be further broken down by the humanities, sciences, and social sciences.

It is evident that students who wish to pursue minors are looking to pursue minors in various different academic fields. All three of the separate categories have over 80% of students who would be interested in pursuing a minor in that field.

In Figure 2 Q22, we see that almost two thousand students listed that they wanted to pursue a minor because they wanted to study an area that was separate from their major. Further, in Q23, we see that many students are looking to pursue a minor that is dissimilar to their major. Thus, the data suggests that students are looking to obtain minors for the purposes of diving into different academic interests from their majors. With such great popularity among the student body, there is high probability that minors may allow students to pursue academic interests separate from their declared majors without having to commit to double majoring in another area of academic interest.

Figure 1:

Q20 - If minors were offered at Yale, I would want to have a minor.



Q20 - If minors were offered at Yale, I would want to have a minor.

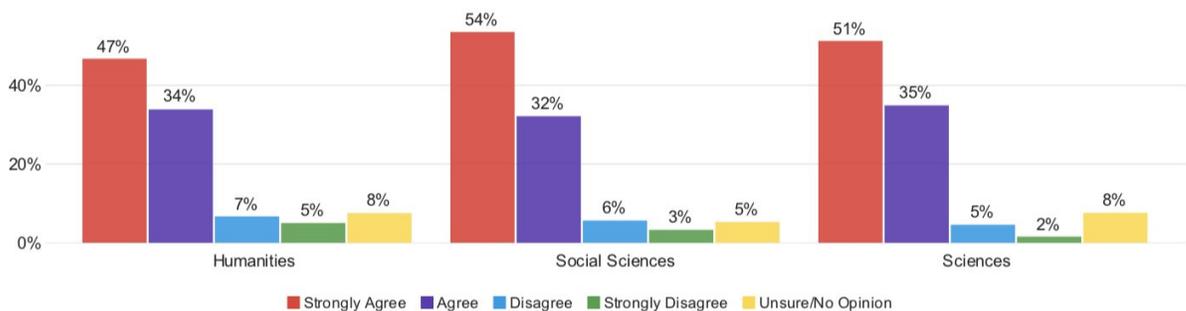
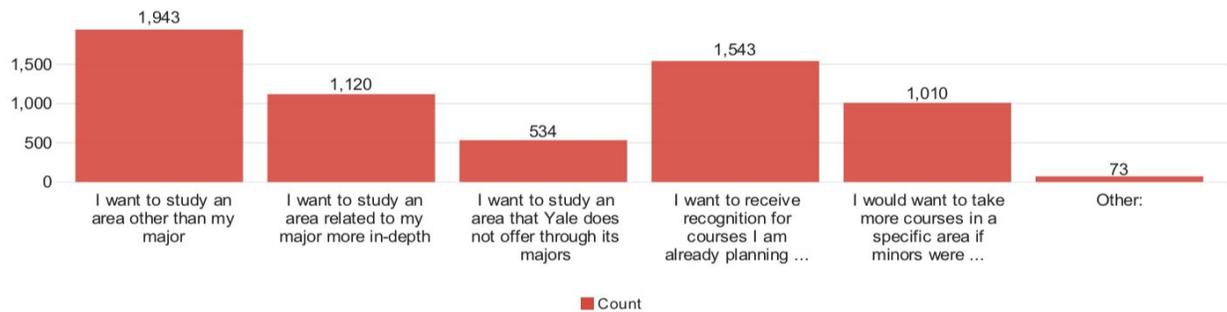
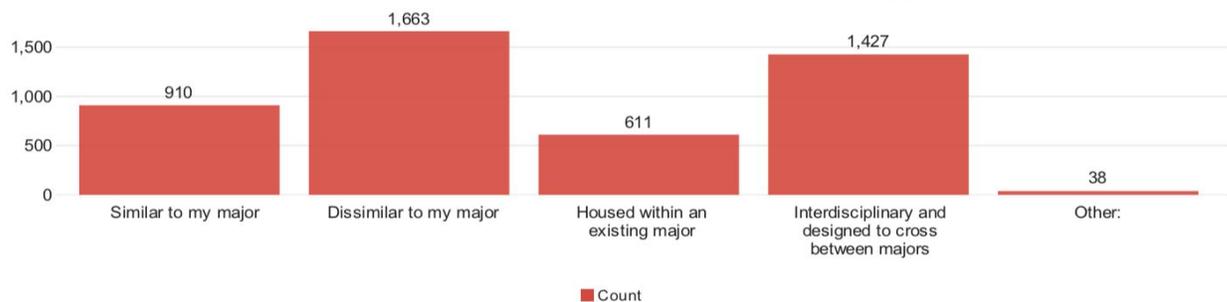


Figure 2:

Q22 - I would want a minor because: (Select all that apply) - Selected Choice



Q23 - If I had a minor, I would want a minor that is: (Select all that apply) - Selected Choice



## Focus Group Findings

There are many different reasons for why Yale College should offer minors in the academic program. After talking to students, the main reasons for why students may desire to have minors are listed below.

### Increased Academic Flexibility:

Many students at Yale have a wide range of interests that are outside of the scope of a single major. In order to dive into these multiple interests, many students feel compelled to complete a double major. A single major requires anywhere from twelve to over twenty credits, which constitutes a large portion of a student's academic experience in Yale College.

This time is generally divided into three parts: one-third of classes fulfill distributional requirements, one-third of classes fulfill major requirements, and one-third of classes are for electives. When a student completes a double major, they lose the ability to take these elective classes, as this last "one-third" is devoted to the second major. Most faculty concerns dealing with minors involve the notion that minors could potentially detract from the liberal arts experience, as there would be a decrease in the number of electives that students take. However, by offering minors, it is believed that less students would double major, and instead would complete a major and a minor. This would allow these students to have additional spaces in their schedule for elective classes that do not pertain to either of their two main academic interests and that are taken to pique the students' curiosities. As such, offering students the option to minor in a field

would offer them increased academic exploration and flexibility to fulfill their liberal arts educations and pursue elective classes.

### Student vs. Parent Interests:

Although Yale College encourages its students to pursue academic interests that are congruent to their personal interests, the reality is that many students also rely heavily on their parents' expectations. Although a student may be interested in Art History, the student may end up majoring in Economics or Molecular, Cellular, and Developmental Biology because their parents push them to enter the finance industry or the medical field, respectively.. These sentiments are common within the student population in Yale College, and could be better navigated if minors are offered.

Instead of giving up their own academic interests, students can choose to minor in areas that they are interested in -- even if they decide to pursue the interests and expectations put forth by their parents. Another possibility could be that student pursue majors in their own academic interests and pursue minors in the areas that they feel is expected of them to complete. All in all, minors allow students more flexibility to juggle their personal interests with their feelings of personal obligations.

Additionally, some students may feel pressured by their parents' expectations to pursue a double major. By offering minors, Yale College would allow students the ability to complete a major and a minor, increasing the number of elective courses that these students would be able to take.

This in turn, may increase academic demands in departments that have seen a declining number of students. Certain subjects have faced a diminishing number of students declaring a major in them, as there has been a rise in the number of students majoring in more technical fields, such as some sciences. By introducing minors, some departments may experience increased numbers of interested students.

## Recommendations

*Given the evidence and data that we have collected, we, the Yale College Council, strongly believe that Yale College should implement minors into its academic program.* There are several ways in which Yale College can do this. One key feature, similar to how Stanford University and Princeton University have minors, is to dictate college-wide regulations that all departments must follow when deciding the structure of their department's minor. For example, all minors at Stanford University must consist of at least six courses. This does not include a senior requirement, or capstone experience. Meanwhile, at Princeton University, certificate programs require five courses, along with a senior requirement. Examples of each minor structure, adapted to Yale College's academics, can be found below:

### Molecular, Cellular, and Developmental Biology Minor

(Without a senior requirement, similar to Stanford University)

**BIOL 101:** Biochemistry and Biophysics (0.5 credits)

**BIOL 102:** Principles of Cell Biology (0.5 credits)

**BIOL 103:** Genetics and Development (0.5 credits)

**BIOL 104:** Principles of Ecology and Evolutionary Biology (0.5 credits)

**Two MCDB cores courses** selected from: MCDB 200, 202, 205, 210, 290, or 300

**One elective** numbered MCDB 250 or above

**One elective** numbered MCDB 350 or above

### Computer Science Minor

(with a senior requirement, similar to Princeton University)

**CPSC 100:** Introduction to Computing and Programming / **CPSC 112:** Introduction to Programming (can be substituted for one elective)

**CPSC 201:** Introduction to Computer Science

**CPSC 202:** Mathematical Tools for Computer Science

**CPSC 223:** Data Structures and Programming Techniques

**One additional elective**

#### Senior Requirement

Once Yale College has developed overarching structural policies for minors, it can give each department flexibility in further developing its own minor. Thus, this gives the department the freedom to cater the academic requirements to what they believe are sufficient for students to develop a deeper understanding in the respective field. In this, we strongly recommend for departments to develop minor frameworks by the start of the upcoming school year, 2019 - 2020, to allow for current students to plan ahead for their course schedules and future academic plans. While we understand that it will not be possible for every department to accommodate the increased number of students who plan on majoring in the subject, we hope that many of the major departments will quickly create minors.

As such, we also recommend that the College first offer minors in existing departments. As minors become a part of the Yale College curriculum, we recommend that the College begin to offer minors in interdisciplinary subjects, as well as integrating the Multidisciplinary Academic Programs into the minor catalogue. Additionally, the certificate programs that Yale College currently offers can be incorporated into this catalogue.