## Project Proposal

**Project Information**

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| --- | --- |
| **Project:** | Summer Quarter CS Class Expansion |
| **Project Time-frame:** | 2023/9/8 to 2024/9/8 |
| **Summary:** | There are less computer science classes available in the summer term than any other. We aim to provide more options/sections for CS courses in the summer by hiring more professors or adjunct professors. |
| **Related Documents:** | <https://www.reddit.com/r/Drexel/comments/nnouto/so_does_drexel_just_purposely_not_provide_enough/>  <https://www.reddit.com/r/Drexel/comments/h00ggx/i_heard_its_difficult_to_register_for_classes_you/>  <https://www.reddit.com/r/Drexel/comments/35nabq/summer_course_options_suck/>  <https://www.reddit.com/r/Drexel/comments/hd5jac/why_the_hell_are_there_so_few_courses_available/>  <https://www.reddit.com/r/Drexel/comments/mbtc2a/classes_during_summer/> |

**Process impact: The related links are current and past students at Drexel who have reached out to others on a Drexel forum with concerns about summer class availability going back at most 8 years. We want to change that tradition for future students, so that they have more flexibility during their summer terms.**

**Background and Motivation**

For 104 years, students at Drexel University have participated in Drexel’s famous co-op program. Being one of the few schools in the United States that features a robust co-operative education program for a variety of majors, Drexel attracts many students from around the country who want to gain hands-on work experience to build their resume’s with their education. Co-op is a big part of student life at Drexel, and an even bigger part of their course schedules.

IN order to make lasses and co-op work in timely fashion, Drexel’s academic years operate on trimesters. Instead of semesters, the year is broken down into 3 month quarters that follow the seasons. Upon coming into Drexel as a freshman as a part of the most popular 5 year 3 co-op program, students are placed into either a Fall/Winter or Spring/Summer co-op cycle, with the opposite seasons to their co-ops being classes. See the diagram below for a visual example:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X = Class  O = Co-op | Fall | Winter | Spring | Summer |
| Freshman | X | X | X | - |
| Soophomore | O | O | X | X |
| Pre-junior | O | O | X | X |
| Junior | O | O | X | X |
| Senior | X | X | X | - |

Fall/Winter co-op Cycle for 5yr, 3-co-op students

This particular schedule, popular with many students in general, is a pain point among specifically computer science majors at the College of Computing and Informatics (CCI). During their middle three co-op years, students must take the bulk of their classes during the Spring and Summer, as they are only allowed to take 4 free credits over co-op and are last to register. This would be fine, however CS majors must take the bulk of their CS classes in the Spring, as Summer availability for CS classes is much lower than other terms.

As mentioned in the r/Drexel posts on Reddit, Summer course availability has been historically bad. In 2023, each quarter had more than 30 available classes with all having at least two sections. Summer quarter had only 20 classes, with many only offering 1 section.

|  |  |
| --- | --- |
| Term | Number of CS Classes |
| Fall | 31 |
| Winter | 32 |
| Spring | 35 |
| Summer | 20 |

This low availability has several ramifications for students that would otherwise be remediated if they were in the opposite cycle. There are two major results of this problem:

1. Students are forced to stack their CS classes in one term, leading to abnormally high workloads. High workloads for students can lead to many things such as burnout, which can have several negative effects such as decreased engagement in classes, poor performance and low motivation as well as depression and anxiety.
2. CS majors are required to take 2 tracks of related course work in order to graduate. This is great because it allows the student to specialize in a particular area like graphics, software engineering, or cybersecurity for example. However if these track courses are not available in the Summer term, students may not be able to specialize in the area they want to, which defeats the purpose of the tracks.

A major reason why there is low availability is because of the lack of professors ready to teach in the summer quarter.

The following pages provide supporting information:

* <https://hechingerreport.org/burnout-symptoms-increasing-among-college-students/>
* <https://link.springer.com/article/10.1007/s43076-021-00137-4>
* <https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-023-04783-z>

**Goals:**

The goal of this project is to remediate those two major concerns. To do this, we will hire 5 new processors or adjuncts to bridge the 10-course gap between the summer and fall quarters, which would provide more professors to teach the classes not previously offered.

Salary information is available at the link below, and salaries for professors can range anywhere between $28,790 and $380,120 based on years of experience and at what level of academics taught. There would be no need to hire 5 Ph.D. level professors for a maximum pay-grade, so younger, less experienced professors around the middle of the pay-grade scale in the L-M range should suffice.

Drexel does not need to hire 5 full-time professors either, they could hire a mix of full-time professors and adjuncts given that the need is only for a 3 month term. Adjunct professor compensation is not listed online by Drexel.

Salary information: <https://drexel.edu/hr/career/ducomp/salstructure/>

**Scope:**

This project will only pertain to computer science classes to start. There are other majors at other colleges within Drexel that also need more summer course availability, however keeping to something small to start would be more beneficial.

**Deliverables:**

After the professors have been hired and missing courses created, students in the Fall/Winter co-op cycle will have more flexibility in their schedules, allowing them to spread out their major-specific classes across two terms instead of one. This will alleviate their workloads, thus leading to less stress and burnout for students.

**Risks/Rewards:**

The risk to this project is that there is not enough demand for hiring these professors and starting new courses in the Summer. This could lead to unnecessary spending and wasting of professors time, however to retort this risk the project could be extended by 2-3 years in order to experiment with the balance of demand to nail the correct amount of professors and classes needed to be balanced with the rest of the year.

The reward of this project is happier, less stressed, and more productive CS students at Drexel, which can also make the program more attractive to prospectice students in the future.