

Course Selection Study Report

How (NJIT) students decide to take courses every semester



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ABSTRACT

The course selection process is one of the most important parts of a student's academic life. Every semester, students are faced with decisions that can affect their entire school experience; whether it's about meeting graduation requirements, following their personal interests, or managing a packed schedule. For NJIT students, this process can sometimes feel overwhelming, especially with so many factors to consider.

This study was conducted to better understand how NJIT students navigate the course selection process. I wanted to understand what influences their decisions the most; is it peer advice, passion for the subject, or maybe how the schedule fits into their busy lives? By collecting feedback directly from fellow students, this research aims to highlight the real challenges and priorities we all face when it comes to picking classes. The goal is to bring attention to the process and identify ways to make it easier and more efficient for everyone.

INTRODUCTION

Let's face it, choosing courses can be complicated. On one hand, you want to take classes that align with your passions and future goals, but on the other hand, you have to consider academic requirements, work schedules, and even which professor will make the material interesting. Add in the pressure to keep up with friends or listen to advisor recommendations, and it's easy to see how overwhelming this process can be. I wanted to dig deeper into this experience and understand what matters to NJIT students when they make these decisions.

This study is important because it sheds light on a process that every student goes through but rarely talks about in depth. By asking students to rank factors like peer influence, personal interest, and instructor reputation, and then following up with a more detailed questionnaire, I was able to gather insights into the challenges and motivations behind their choices. Understanding these factors doesn't just help students like us, it can also help the school improve the support they offer, whether it's better advising services, clearer schedules, or tools to help us make decisions with less stress.

DATA COLLECTION

Recruitment Process

The participants for this study were NJIT students who volunteered to share their experiences with course selection. I reached out to students using a straightforward and friendly approach, making sure they understood how valuable their input would be. Participation was completely voluntary, and I assured everyone that their answers would remain anonymous. I wanted students to feel comfortable sharing their thoughts, knowing they wouldn't be judged or identified in any way.

To recruit participants, I used a two-step process. First, I shared a simple ranking questionnaire that asked students to prioritize seven key factors in the course selection process: peer influence, schedule compatibility, personal interest, advisor recommendations, academic requirements, instructor reputation, and online research. I also explained that the same ranking number couldn't be used more than once, which encouraged participants to think carefully about their choices. For the second step, I created a follow-up questionnaire that was sent out to both the original participants and anyone who wanted to join later. This questionnaire was a little more detailed, asking questions about how students begin the course selection process, how helpful they find advisor input, and what challenges they face along the way.

The response was better than I expected! It was clear that students wanted to share their experiences and be part of the conversation. This made me realize how much we all have in common when it comes to course selection, even if we approach it differently.

Card Sort Method

To better understand how NJIT students prioritize the factors that influence their course selection, I used a method called a Card Sort. In this case, it was done through the initial ranking questionnaire. The idea behind the Card Sort method is simple: participants are given a list of options and asked to sort or rank them in order of importance. For this study, students were presented with seven factors; peer influence, schedule compatibility, personal interest, advisor recommendations, academic requirements, instructor reputation, and online research; and were asked to rank them from 1 (most important) to 7 (least important).

This method worked well because it was quick, easy, and didn't require much effort on the students' part. I made sure to explain the instructions clearly, so no one felt confused about the task. By forcing participants to choose unique rankings for each factor, the Card Sort method helped identify which factors mattered the most to students overall. For example, some students might rank personal interest as their top priority, while others might put schedule compatibility first. The rankings gave me a clear picture of what students value most when choosing their courses.

What I liked about this method is that it helped simplify a complex process. Even though course selection involves a lot of different considerations, the Card Sort method broke it down into manageable pieces. The results from this ranking exercise provided a strong starting point for the follow-up questionnaire, where students could explain their choices in more detail.

Questionnaire Process

After completing the ranking exercise, I created a follow-up questionnaire to dive deeper into students' course selection habits and challenges. While the ranking survey gave me a big-picture view of what students prioritize, the questionnaire allowed me to understand why those priorities matter. I designed the questions to be clear and straightforward, focusing on topics like how students begin the course selection process, how often they talk to advisors, and how their personal schedules affect their decisions.

The follow-up questionnaire included a mix of open-ended questions and multiple-choice options. For example, I asked, "How do you typically begin the process of choosing classes each semester?" and "How important is personal interest in determining your final choices?" These questions gave students the opportunity to share their thoughts in their own words, which added a personal and human touch to the data. I also included questions about the biggest challenges students face during course selection, such as limited class availability, scheduling conflicts, or lack of helpful advice.

Collecting responses was a smooth process because students seemed eager to share their experiences. Many of the answers were relatable, and it was clear that students appreciated having a chance to voice their opinions. The combination of the ranking exercise and the follow-up questionnaire gave me both quantitative data (the rankings) and qualitative data (the detailed answers), which helped create a well-rounded understanding of the course selection process. Overall, the questionnaire process was a success, and the responses were incredibly valuable for this study.

ANALYSIS

Analysis Process and Method

To analyze the data collected from the questionnaires and ranking exercises, I followed a structured approach to ensure that the findings were clear and meaningful. First, I organized all the responses into a centralized database. This step made it easier to separate quantitative data, like rankings, from qualitative data, such as detailed responses to open-ended questions. By categorizing the data, I was able to choose the right methods for analyzing each type.

For the qualitative data, I used a combination of open and axial coding. Open coding was my starting point. I carefully read through the responses and broke them down into smaller, meaningful segments. I then assigned initial tags or codes to these segments based on recurring ideas. For example, phrases like "graduation planning" and "advisor perceptions" became

separate codes. After I completed this initial breakdown, I moved on to axial coding. This step involved grouping related codes into broader categories or themes, such as "academic requirements" or "scheduling constraints." This two-step coding process made it easier to identify patterns and trends while keeping the analysis detailed and organized.

Throughout the analysis, I relied heavily on analytic memos to document my thoughts and observations. These memos captured my initial reactions to the data, as well as any emerging patterns or questions I noticed. For example, I used a memo to track how often students mentioned "Rate My Professors" when discussing peer recommendations. These notes were incredibly useful because they helped me stay focused and ensure I didn't overlook important details. They also served as a reference point when refining my themes later on.

Finalizing the themes was an iterative process. I reviewed the codes and categories multiple times to make sure they accurately represented the data. If something seemed too broad or unclear, I went back to the original responses to reevaluate it. For instance, I initially considered "technical issues" as a separate theme, but after further review, I realized it fit better under the broader theme of "scheduling challenges." By repeating this process, I ensured the final themes were both comprehensive and grounded in the data.

Identifying Final Themes

The final themes emerged after carefully reviewing the data and recognizing consistent patterns across responses. Three major themes stood out: academic requirements, peer recommendations, and scheduling flexibility. These themes not only aligned with the study's research questions but also provided valuable insights into how students make decisions during course selection.

Academic requirements were clearly the most influential factor. Students frequently mentioned using tools like DegreeWorks and course catalogs to identify which courses they needed to graduate. Staying on track for graduation was a top priority for most participants. Personal interest, on the other hand, played a much smaller role. Students only considered their interests when they had multiple options that fulfilled the same requirement. This showed how efficiency often outweighs passion in the decision-making process.

Scheduling constraints were another significant theme. Many students adjusted their course choices based on their personal schedules, which often included work commitments, extracurricular activities, or family obligations. Specific preferences, like avoiding early morning classes or ensuring free days, were common. Underclassmen often expressed frustration with limited course availability, especially when high-demand classes were filled before their registration period. These challenges highlighted systemic issues that add to the complexity of course selection.

Peer influence and external tools were also heavily cited. Students relied on recommendations from friends and platforms like Rate My Professors to decide which professors and courses to choose. These tools were especially useful for evaluating factors like workload and teaching quality. Some students also mentioned aligning their schedules with friends as a social consideration, showing that peer networks can shape decisions in both academic and personal ways.

Using Analytic Memos and Notes

Analytic memos and notes played a crucial role throughout the analysis. They helped me keep track of my thoughts, document recurring trends, and clarify any ambiguous data points. For instance, I wrote a memo to explore why some students viewed academic advisors as unhelpful. These notes allowed me to connect individual responses to larger patterns and themes.

Using these memos also helped me answer the research questions more effectively. They ensured that my final themes were grounded in the data and aligned with the study's objectives. For example, memos about scheduling challenges and peer recommendations directly addressed how students navigate the course selection process. If a theme didn't seem to fit the research questions, I revisited the data to determine its relevance.

Did Themes Answer the Research Questions?

Yes, the themes successfully answered the research questions. For example, the "academic requirements" theme provided insight into how students begin the course selection process, with tools like DegreeWorks serving as a common starting point. The "scheduling constraints" theme explained how personal schedules impact decisions, while "peer influence" shed light on the social and external factors that guide choices.

However, the analysis also uncovered areas that could benefit from further exploration. While the study highlighted key influences on course selection, it raised additional questions about systemic barriers, such as registration timing and technical challenges. Addressing these issues could provide even deeper insights and help improve the course selection process for students.

UX Artifacts

PERSONAS



Amy Shroud

Age: 21
Education: NJIT
Occupation: Store Clerk
MAJOR: Graphic Design

"I am rarely on campus because usually right after class, I go home to prepare for work and when I am not working, I am doing homework or studying."

Amy is in her 3rd year at NJIT and is excited to begin a new semester. With her part-time job continuing to sponsor her lifestyle, she needs to be prepared to choose the right course. With many factors playing a role in her final decision, the main two are: work school schedule compatibility and instructor reputation. A strict and unforgiving professor would make her time in school a living hell. An ideal semester would consist of classes with good professors and a flexible schedule that accommodates her job and time to study.

Figure 1. Persona #1



Sharut Mituk

Age: 19
Education: NJIT
Occupation: Student
Major: Electrical Engineering

"I only consult with them to get the hold off my account, if not for that I will not meet with them. Their input isn't helpful, and sometimes misleading."

Sharut is a second year transfer student looking to complete his college career at NJIT. He recently went and discussed course recommendations from his academic advisor. After a stressful semester, he realizes that some of the courses he took were not required to increase his degree completion percentage and he felt betrayed. Now that registration for the next semester is about to be underway, he will be looking towards his peers and DegreeWorks to choose his courses.

Figure 2. Persona #2

EMPATHY MAP

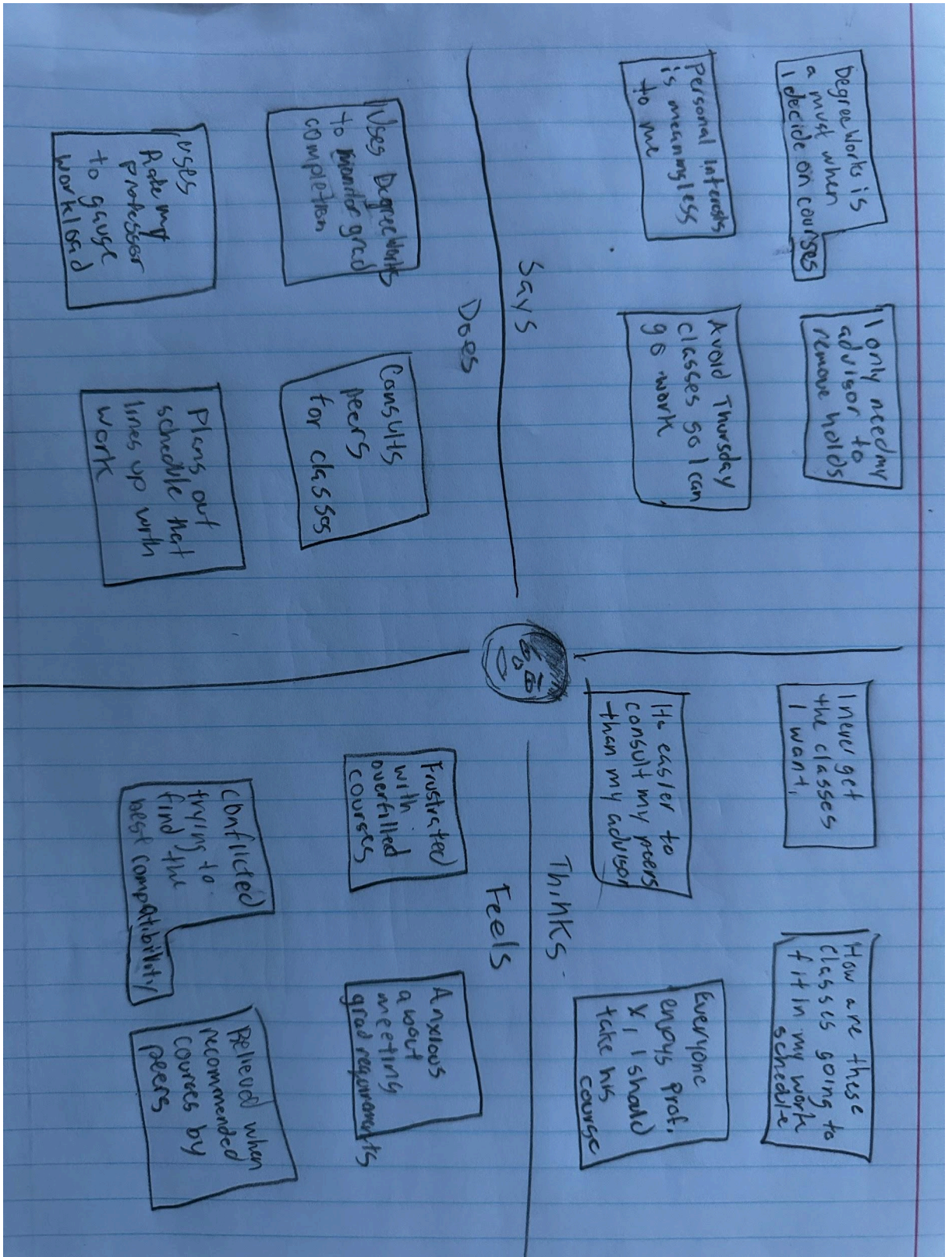


Figure 3. Empathy Map #1

CONCLUSION

This study explored how NJIT students choose their courses and uncovered some interesting patterns. The most important factor is meeting academic requirements. Students focus on fulfilling their major and minor needs to stay on track for graduation. Tools like DegreeWorks and course catalogs are super helpful for planning. Personal interest, however, doesn't play a big role unless multiple courses meet the same requirement.

Scheduling conflicts and system issues make the process even harder. Students often juggle work, extracurriculars, and class times, trying to avoid early mornings or late nights. Registration timing can also be frustrating, especially when popular classes fill up quickly. Peer recommendations and tools like Rate My Professors are major influences, helping students pick professors and manage their workload. On the other hand, academic advising is hit or miss; some students find it helpful, while others barely use it.

To present these findings in a clear way, I created two visuals. One is a heat map showing the most popular course selection methods, and the other is an infographic that breaks down the decision-making hierarchy. These visuals make the results easier to understand and share. Improving support systems, like academic advising and registration tools, could really help students feel more confident and less stressed about choosing their classes.

APPENDIX

Course Selection Methods (Responses)

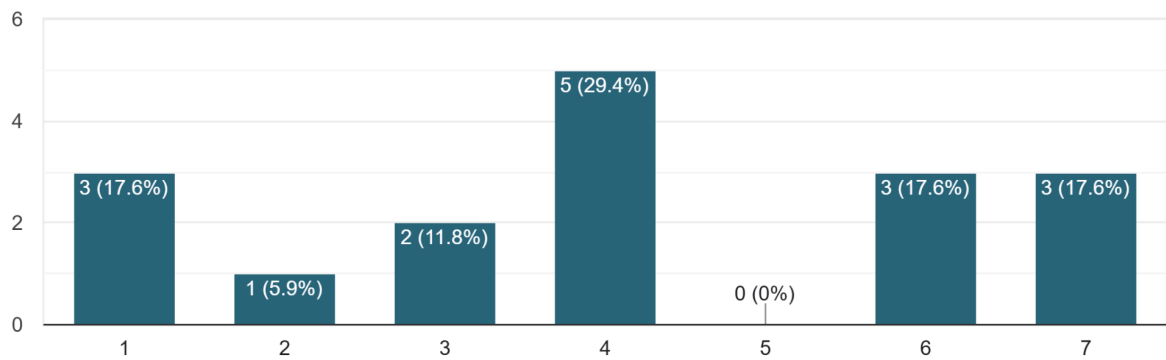
Peer Influence	Schedule Compatibility	Interest/Passion	Advisor Recommendation	Academic Requirements	Instructor Reputation	Online Research
6	4	2	7	1	3	5
4	3	5	2	6	7	1
4	2	7	3	1	5	6
4	1	2	3	5	7	6
1	4	7	3	7	6	5
2	1	3	3	3	2	6
1	5	3	2	5	4	2
4	7	6	5	7	5	5
4	1	2	3	5	6	7
7	1	5	6	2	3	4
3	1	5	6	3	2	7

Figure 4. Survey Data from the card sort

How participants ranked course selection methods:

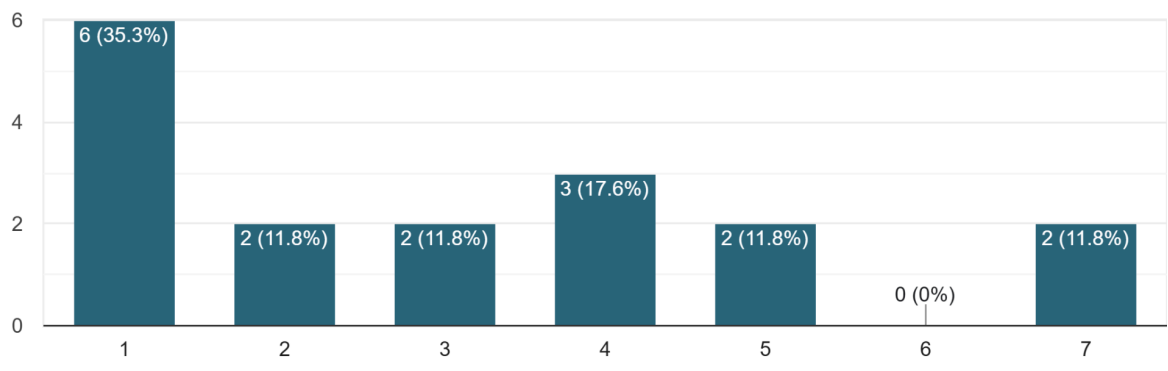
Peer Influence

17 responses



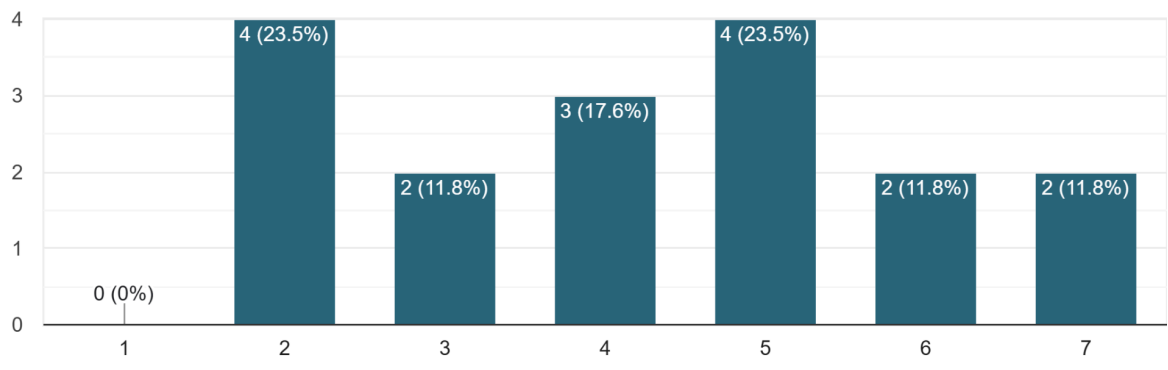
Schedule Compatibility

17 responses



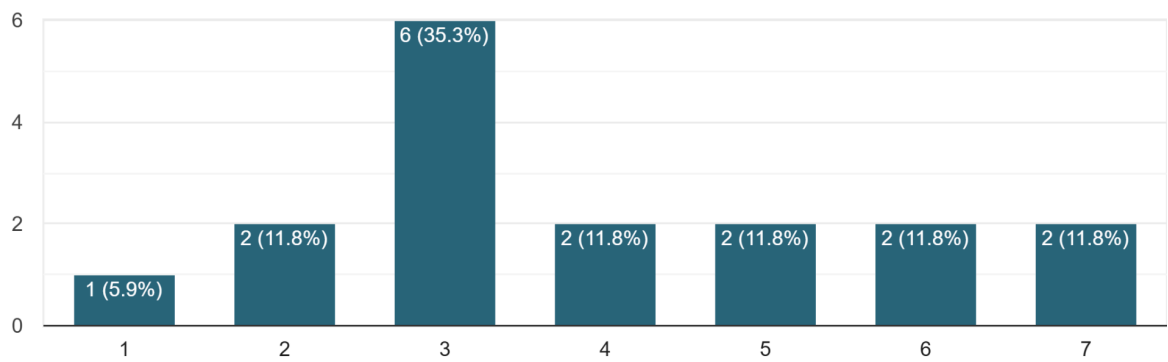
Interest/Passion

17 responses



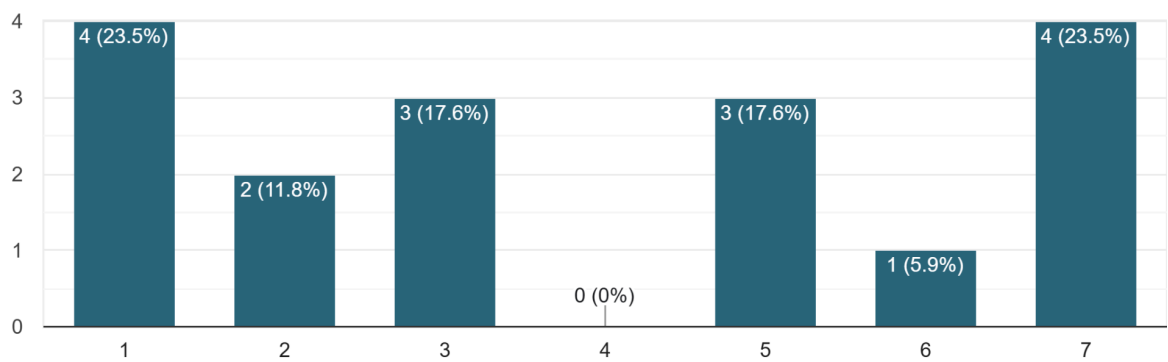
Advisor Recommendation

17 responses



Academic Requirements

17 responses



Instructor Reputation

17 responses

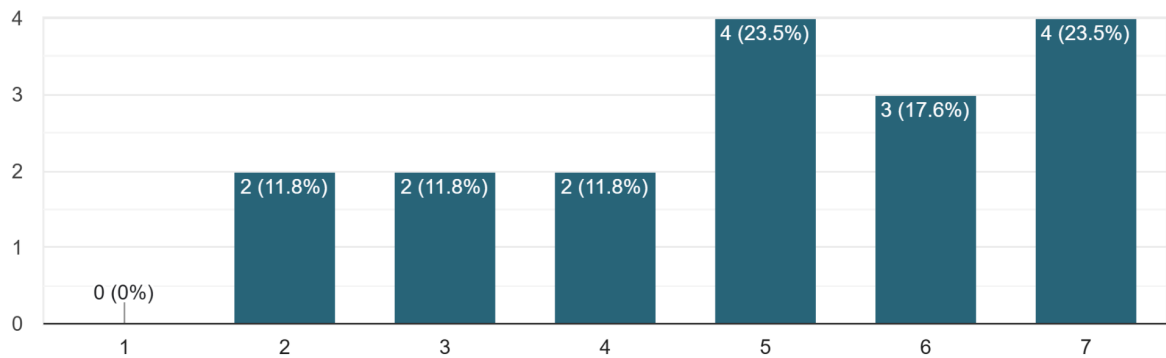


Figure 5-11. Card Sort data for each course method

Course Selection Questionnaire (Responses)

How do you typically begin the process of choosing classes each semester?	How often do you consult with academic advisors, and how helpful is their input?	How does your personal schedule (work/academic/etc.) affect your course selection?	What are the biggest challenges you face during course selection?	How important is personal interest in determining your final choices?
I start by reviewing my course curriculum to ensure I'm on track. Next, I prioritize the courses I need, with pre-requisite classes taking top priority. I use the NJIT Schedule Builder to align my classes with my work schedule. After that, I check the professors, but their ratings don't matter much—if I need a	I only consult with them to get the hold off my account, if not for that I will not meet with them. Their input isn't helpful, and sometimes misleading.	My personal schedule greatly affects my course selection. I don't take early classes because I know I won't be up. I don't take 6-9 classes on days I'm on duty. I don't take weekend classes since I'll probably be working too.	The website is always slow and sometimes crashes when NJIT opens registration.	Very important, I'm not an early bird so I like mid-day classes. I don't like 6-9 classes because it's impossible to stay up and engaged.

specific time slot, I'll take it.				
I use my NJIT major catalog	I don't consult, I just need them to approve of the classes	I really doesn't especially because I mainly have one sections available in my classes	Registration hold and all	Zero to none; just trying to complete my graduation checklist and requirements
I use my course catalog to look at the "expected" schedule I'm supposed to make for my standing, and try to make a schedule that closest resembles that.	I usually only talk to my academic advisor when there is a problem with something, and most of the time they are able to solve it for me. I would say that their input is very helpful, although it is underutilized in my case.	I try to make sure I don't have classes on fridays since I work that day, so any class that is only available on friday will be dodged to the best of my ability. I would say sometimes this has a major affect on my course selection.	I'm still a sophomore so I get to register fourth, losing to the higher grades and the priority selection from military students and the like. The biggest problem I face is that sometimes high demand courses fill up before I even get the chance to register for them, especially special topic classes and electives.	Personal interest really doesn't play too heavy a role in determining my final choices. Being an HCI major I actually have a lot more freedom than average in picking what my final schedule is going to look like, but I'd rather take classes that I know will benefit me in the future rather than classes that I have a personal interest in. I'm spending a lot of money to go to college and would rather make sure that it's a proper investment rather than it's a fun experience.
I look on degreee works to see what classes I have left.	One time	I create my personal schedule around my school schedule.	Time slots	None
I refer to my graduation plan excel sheet I have created then I see what's available	Never they suck the only good advisor is Amanda D	Not really school is first	Good professor and course availability	Kinda it's not a factor really

then I choose the best professor based on friends experience and rate my professors and my schedule being nice				
I go on my degree works and base my selections off what is left to graduate and any recommendations my advisor puts the rare times she does.	Not at all	I have a job that is lenient but also hardheaded with their scheduling when their panties are in a bunch so I try to choose a schedule that can tolerate the set time I have in place for work and completing assignments.	Getting the course I want with the right time and professor. People swarm the portal on their determined days of registration and fill classes up before I get the chance.	It is very important cause that lets me know what kind of semester I will be having.
I look at rate my professor and asked my peers, also looking at their schedule to see if it works with mine.	I do not consult at all, I usually just tell them the classes I plan on taking to get my hold off.	It affects it a lot. I am rarely on campus because usually right after class, I go home to prepare for work and when I am not working, I am doing homework or studying.	The biggest challenge is the classes getting filled before I can get it on my schedule then having to go look for an alternative. It kind of sets me back in a way.	I rarely going into making my final choices with my personal interest, I just base it off what degree works says is left to complete my college career.
Make a pre schedule then start the schedule to fill in your classes so that you can know what is to be expected.	I always talk to my academic advisors, because they help me a lot with my academics and personal things as well.	It affects it sometimes because , When I want to work i also have classes in between !	Not getting the classes selected or being on the waitlist	It is important because it's according to what you wanna do and it's according to what you think you should do!

Typically, I check degree works to see which classes are required for my degree, I gave never taken a class that was not required or showed up on degree works, and then I schedule an appointment with an advisor before I register to ensure that these are classes required for my degree.	I meet with my advisor once a semester when registering for classes to ensure that the courses I have chosen are required for my degree, their input is valuable, as they recommend to take classes in the summer at community colleges should the courses at njit be considered too hard, and make sure that each student is on track to graduate.	I would say that my course selection affects my personal schedules, as I work everything around my school schedule in an effort to get school done.	The biggest challenges I face during course selection is trying to find required courses and sections which do not create a schedule conflict.	I would say that personal interest is not very important in determining my schedule, except when their are multiple classes which could fill a degree requirement, and in this case, I would choose the course which sounds more interesting, or is reportedly easier
I check degree works and my major layout	I consult once a semester and I usually take their input into consideration	A lot I'm highly involved	Schedule conflicts	Not that important I had 2 uninterested final choices

Figure 12. Questionnaire data