

Drexel Custom Designed Major Vision Statement and Plan-of-Study  
“Designing for the User”

Often than not, the design process is heavily overlooked, critiquing whether or not a product works based off of their appearance and aesthetics rather than the functionality and accessibility. Here is where the interaction between humans and computers become abstruse, and by that, I mean designers often don't understand the science behind what they produce. Sometimes, design decisions are based off of what someone might think is “awesome” and/or what they think the client will want to see, disregarding the consumers true needs. Within this decade, the Web overall has become more ubiquitous, and so has design as companies are beginning to focus more on user-centric avenues since prior to that designers were merely fixated on their personal bias and perspective before putting the needs of the clients, hence forgetting the importance of the user experience for them. For instance, instead of focusing on the experience the user might have with a product, the effort is shifted towards branding and aesthetics and overlooking how users who use the product would interact or feel about it. The conclusion was that the designers only designed for themselves and what they thought would work because they did not understand the users or simply how humans think, feel, and behave.

Nevertheless, I have witnessed tremendous transformation throughout the tech industry since this issue came to light. Nowadays, the technology industry has progressively become more complex as the technologies and methodologies advance. However, for me, the driving factor of how I want to build and innovate products such as web and mobile applications moving forward in the future is to give people the experience, they want who will use my products. Design is very vague, but personally for me, I want to emphasize my goals of design which is enriching the experience people have when using certain products. Like how they feel, think, react, or whether they could possibly emphasize or sympathize with a product. For example, design is more than simply art and graphics, it is about solving everyday problems through the lens of people, hence user-centric design. With that being said, in order to achieve my goal of improving the experiences people have with products and their designs, I hope to study human activity and develop meaningful informational and sociotechnical systems. Furthermore, by doing so I can more efficiently address issues within our communities on topics including education, mental health, environmental, gentrification, etc.

In order to improve design thinking, I must aim to solve the issue of the interaction between person and product. I want to learn more about how we interact with technological

systems, which will lead to me better improving those current and future systems out there. My purpose is to solve those problems with the user's experience in mind. Therefore, because design is such a diverse discipline that is constantly undergoing change, I anticipate adapting with it but in turn I must proceed with an interdisciplinary education that hones the necessary skills to do so. My intended primary majors include Interactive Digital Media, Human-Computer Interaction, Software Engineering, Entrepreneurship and Innovation, and Psychology.

As the growth of technology gradually evolves, I have realized that it's important for us to evolve with it, and the solution is to not only learn the ways of technology but the psychology of humans so that we can better understand how both operate and use that knowledge to create products that ultimately benefit them. Through stressing about the significance of mobile accessibility and efficiency, I believe that user experience will support the evolution of technology. Again, the user experience does not only affect the designers and developers, but also the business in general hence it is all interconnected one way or another. Therefore, being a Custom-Designed student would help by providing me a comprehensive education that covers all the basis I would need to become a User Experience Designer or User Experience Engineer.

Courses in Human-Computer Interaction, Interactive Digital Media, and Software Engineering will be the pinnacle point of where I can learn to merge my two passions: design and coding. Those courses will enhance not only my programming and engineering skills but also teach me how to think and interact in terms of design and media. I am able to learn more about computing while gaining knowledge on the art of design, interface, and architecture. For example, the classes offered in software engineering will provide me strong technical skills including front-end and back-end development from Python, Java, JavaScript, HTML/CSS, and C+. These majors provide relevant technical skills such as design, prototype, and creative processes through applying digital tools and applications that can further my development as an innovator. To link it with user experience, these concentrations teach me how important the interaction humans have with technology, whether positive or negative I must prioritize the needs of the user and how they think in order to create products either mobile or web.

Entrepreneurship and Innovation will push my ways of design thinking further as it'll teach me how to combine empathy and creativity towards my ideas. I will be able to solve difficult, multi-dimensional problems and create my own ideation processes and skills. Design thinking has become more popularized in all industries therefore it's important to keep up with the trend. Courses in Entrepreneurship and Innovation will train my mindset into being more

opportunistic and innovative hence guiding me in terms of being self-sufficient with my product innovations and interdisciplinary path. Again, my end goal is to innovate products that users can easily and efficiently interact with to solve their everyday tasks and problems, but in order to do so I must learn how to mentally guide myself through process of innovating ideas and pushing them further than just merely ideas. For instance, every designer can have an idea but the pushing force behind that idea is where the success lies hence, I need to learn leadership and entrepreneurial skills to differentiate myself from other designers. I want to be a well-rounded designer with a strong entrepreneurial mindset, not just someone who has technical knowledge and abilities.

Courses in Psychology will give me the foundational knowledge behind human-computer interaction. I want to learn why and how humans think and behave on a social, cognitive, and behavioral level. By understanding the psychology behind humans, I believe that I will be able to create designs more efficiently because I understand why humans interact with these systems the way they do. Such courses would teach me more about the personality of individuals as well as the cognitive, behavioral, and social context of humans then I can tie it with how those concepts and themes affect the way they interact with computers and systems. At the end of the day, it would be a human-centric point of view for the way I would like to design my products in the future whether that be mobile, web, or VR applications.

My Custom Design Major will provide me the opportunities to strongly understand the psychology between humans and systems/processes, methods to better improve those systems, and improvements towards my skills in programming, design, and leadership. Even though Interactive Digital Media teaches the concepts of design and interface, it is not enough to shape me as a well-rounded designer especially in today's industry. Being a designer is becoming more and more competitive as only understanding design is not special, but further understanding why we design and how we should design for the users is important and can produce more efficient and better products and experiences. With that being said, the merge of Psychology will give me that foundation of understanding and thinking how humans think, behave, etc. therefore putting their feelings, thoughts, and abilities first when designing. Furthermore, by integrating in Software Engineering and Human-Computer Interaction, I will be able to advance my skills as a full-stack programmer with front-end and back-end development knowledge to not only create these ideas. And lastly, Entrepreneurship and Innovation will push my skills as a leader, innovator, and entrepreneurial in terms of learning how to ideate,

methods of thinking to solve problems, and ways to establish myself in the business world with my own ideas and innovations.

My objective for pursuing these courses is to create a stronger understanding of the design process in order to emphasize creativity and improve changes to the current and future socio-technical systems in a constructive manner. I believe that learning techniques for key design practices including ideation, storytelling, user research methods, etc. in addition to my aspirations for being a full-stack (front-end and back-end) developer will further my unique personality as a designer. My Custom-Designed Major will not only shine light on the relationship between people and computing, but also demonstrate how certain individuals and societies are influenced by various socio-technical systems and how we can improve them to be a progressive impact and a possible solution to pressing social issues. By doing all of that including comprehending the social implications of potential innovations, I can therefore design without bias and for the true needs of others including social issues such as education, mental health, poverty, etc. My dream is to build innovations such as mobile and web applications that people can use on a daily basis that will relieve them of their challenges and adversities, which is surprising to hear that a simple mobile application can do that much for someone but it can come a long way in all honesty compared to whatever they have now.

In terms of my interdisciplinary path, I think of it as a functional cycle. It begins with Psychology (understanding how and why humans think and behave) then moves to Entrepreneurship and Innovation (ideating and processing a plan to push my ideas and solutions further) then Software Engineering, Interactive Digital Media, and Human-Computer Interaction (incorporating my technical skillsets such as programming and design together). This type of interdisciplinary approach is the only way I see myself being able to accomplish my vision of innovating for others, because not only will it permit me to cover more topics more in depth but it will push me to consider various perspectives from which a topic can be explored thus personally gaining more critical thinking skills for those varied perspectives that I can apply to being a stronger user experience designer and/or engineer. Nevertheless, I think the most beneficial factor I can take away from this interdisciplinary pathway is that none of the other majors under Drexel University can offer me what I want out of my desired career path. I can learn how to become more of a seasoned individual prepared for anything after college through learning various methods of tackling situations since not only am I studying how to be a better designer and coder with software engineering, HCI, and interactive digital media, but I am also

taking the time to learn more about how humans communicate and interact to better design mobile applications and websites that help them in their everyday lives with psychology.

## Plan of Study

Class Status: Freshman

Term: FALL 2017-2018

Name	Course ID	Pre-Requisites	Credits
Foundation of Business I	BUSN 101	N/A	4.0
Principle of Microeconomics	ECON 201	N/A	4.0
Composition and Rhetoric I	ENGL 101	N/A	3.0
Introduction to Honors Program	HNRS 200	N/A	1.0
Introduction to Analysis I	MATH 101	N/A	4.0
The Drexel Experience	UNIV B101	N/A	1.0
			TOTAL: 17

Class Status: Freshman

Term: WINTER 2017-2018

Name	Course ID	Pre-Requisites	Credits
Foundation of Business II	BUSN 102	BUSN 101	4.0
Intro to Civic Engagement	CIVC 101	N/A	1.0
Career Mgmt/Profess Dev	COOP 101	N/A	0
Computer Programming I	CS 171	N/A	3.0
Composition and Rhetoric II	ENGL 102	ENGL 101	3.0
Calculus I	MATH 121	N/A	4.0
			TOTAL: 15

Class Status: Freshman

Term: SPRING 2017-2018

Name	Course ID	Pre-Requisites	Credits
Cells and Genetics	BIO 122	N/A	4.5
Computer Programming II	CS 172	CS 171	3.0
Composition and Rhetoric III	ENGL 103	ENGL 102	3.0
Calculus I	MATH 121	N/A	4.0
			TOTAL: 15.5

Class Status: Freshman

Term: SUMMER 2017-2018

Name	Course ID	Pre-Requisites	Credits
NO CLASS			

Class Status: Sophomore

Term: FALL 2018-2019

Name	Course ID	Pre-Requisites	Credits
Fin Accounting Foundations	ACCT 115	N/A	4.0
Peer Mentoring and Leadership	BUSN 211	N/A	2.0
International Business	INTB 200	N/A	4.0
General Psychology I	PSY 101	N/A	3.0
Intro to Business Statistics	STAT 201	MATH 102 or MATH 121	4.0
			TOTAL: 17

Class Status: Sophomore

Term: WINTER 2018-2019

Name	Course ID	Pre-Requisites	Credits
Introduction to Human-Computer Interaction	INFO 110	N/A	3.0
Techniques of Speaking	COM 230	ENGL 102	3.0
Business Communication	COM 270	ENGL 103	3.0
History of Web Development	IDM 101	N/A	3.0
Class Guitar I	MUSC 191	N/A	2.0
Superheroes in America	HNRS 302	N/A	3.0
			TOTAL: 17

Class Status: Sophomore

Term: SPRING 2018-2019

Name	Course ID	Pre-Requisites	Credits
Co-op	COOP 201		
			TOTAL:

Class Status: Sophomore

Term: SUMMER 2018-2019

Name	Course ID	Pre-Requisites	Credits
Co-op	COOP 201		
			TOTAL:

Class Status: Pre-Junior

Term: FALL 2019-2020

Name	Course ID	Pre-Requisites	Credits
User Interface Design I	IDM 211	DIGM 100?	3.0
The Art and Science of New Products	HNRS 302	N/A	3.0
Approaches to Personality	PSY 140	PSY 101	3.0
Technical Communication	COM 310	ENGL 103	3.0
Introduction to Web Development	IDM 100	N/A	3.0
Ideation	ENTP 250	N/A	3.0
			TOTAL: 18

Class Status: Pre-Junior

Term: WINTER 2019-2020

Name	Course ID	Pre-Requisites	Credits
User Interface Design II	IDM 212	IDM 211	3.0
Human Factors Engineering	IDM T380	N/A	3.0
Knowledge by Design Seminar	CSDN 102	CSDN 101	
Methods of Interdisciplinary Inquiry	CSDN 220	N/A	3.0
Web Graphics I	WMGD 220	N/A	4.0
Human-Centered Design Process & Methods	INFO 310	CS 171 or INFO 110	3.0
			TOTAL: 17

Class Status: Pre-Junior

Term: SPRING 2019-2020

Name	Course ID	Pre-Requisites	Credits
Co-op	COOP 201		
			TOTAL:

Class Status: Pre-Junior

Term: SUMMER 2019-2020

Name	Course ID	Pre-Requisites	Credits
Co-op	COOP 201		
			TOTAL:

Class Status: Junior

Term: FALL 2020-2021

Name	Course ID	Pre-Requisites	Credits
Computing and Informatics Design I	CL 101	N/A	3.0
Sensation and Perception	PSY 213	PSY 101	3.0
Software Specification and Design I	SE 210	CS 172	3.0
Leading Start-Ups	ENTP 210	N/A	3.0
Web Design I	IDM 221	IDM 211	3.0
			TOTAL: 15

Class Status: Junior

Term: WINTER 2020-2021

Name	Course ID	Pre-Requisites	Credits
Computing and Informatics Design II	CL 102	CL 101	3.0
Social and Collaborative Computing	INFO 405	INFO 110 or INFO 310	3.0
Autism Spectrum Disorders	PSY 450	PSY 120 Min. Grade – C	3.0
Software Specification and Design II	SE 211	SE 210	3.0
Ready, Set, Fail	ENTP 205	ENTP 101	3.0
			TOTAL: 15

Class Status: Junior

Term: SPRING 2020-2021

Name	Course ID	Pre-Requisites	Credits
Computing and Informatics Design III	CL 103	CL 102	3.0
User Experience Design	IDM 215	IDM 213	3.0
Interaction Design	IDM 213	IDM 212	3.0
Introduction to Social Psychology	PSY 150	N/A	3.0
Introduction to Ubiquitous Computing	INFO 150	N/A	3.0
Entrepreneurship Practice and Mindset	ENTP 105	ENTP 101	3.0
			TOTAL: 18

Class Status: Junior

Term: SUMMER 2020-2021

Name	Course ID	Pre-Requisites	Credits
User Experience Design II	IDM 216	IDM 215	3.0
Building Entrepreneurial Teams	ENTP 215	ENTP 101	3.0
Social Aspects of Information Systems	INFO 215	N/A	3.0
Introduction to Software Engineering and Development	SE 181	CS 172	3.0
Content Management Systems	IDM 250	IDM 222	3.0
			TOTAL: 15

Class Status: Senior

Term: FALL 2021-2022

Name	Course ID	Pre-Requisites	Credits
Senior Capstone	CSDN 304	N/A	3.0
Entrepreneurship & New Technologies	ENTP 329	ENTP 101	3.0
Psychological Problems of Modern Youth	PSY 222	N/A	3.0
Web and Mobile App Development	CS 375	CS 265 [Min: C] and CS 172 [Min: C]	3.0
			TOTAL: 15

Class Status: Senior

Term: WINTER 2021-2022

Name	Course ID	Pre-Requisites	Credits
Senior Capstone	CSDN 305	N/A	3.0
Storytelling for User Experience Design	IDM 418	IDM 215	3.0
Early-Stage Venture Funding	ENTP 325	ENTP 101	3.0
Abnormal Psychology	PSY 240	N/A	3.0
Custom-Designed Major Seminar	CSDN 203	CSDN 102	1.0
			TOTAL: 13

Class Status: Senior

Term: SPRING 2021-2022

Name	Course ID	Pre-Requisites	Credits
Senior Capstone	CSDN 306	N/A	3.0
Human Factors and Cognitive Engineering	PSY 332	N/A	3.0
Innovation in Established Companies	ENTP 385	ENTP 101	3.0
Culture and Personality	PSY 244	PSY 101 or PSY 112	3.0
Integrative Research Methods	CSDN 220	N/A	3.0
			TOTAL: 15

