Custom-Designed is a Community of Problem-Solvers

“We are not students of some subject matter, but students of problems. And problems may cut across the borders of any subject matter or discipline.”

~ Karl Popper, 1963
The Custom Designed Major offers students…

- An early intensive research experience through automatic acceptance into the STAR program.
- Individualized curriculum and access to coursework across the university.
- Cooperative education, both 5/3 and 4/1 options
- A cohort of likeminded innovators
- The support and faculty mentorship to complete an original, interdisciplinary senior project.
- Tailored, intensive academic advising at a ratio of 25 students to 1 advisor.
Examples of Custom-Designed Majors, Past and Present

- Compassionate Game Design
- Risk and Disaster Management
- Organizational Sciences
- Neuroscience
- Paleontology and Digital Reconstruction
- Cryptography and Steganography
- Communication in Global Medicine
- Environmental Marketing
- Biomimicry
- Sustainable Product Development
Environmental Marketing

Now more than ever, scientists and non-profit organizations struggle to secure support to forward their causes. This is often because scientists don’t communicate their work in an accessible way. I started Drexel as an environmental science student and worked on various research projects where I interacted with professors and students that struggled to communicate their work. Having come from a marketing background, I realized that if I could create a guide to better frame public communications that scientists could bridge their gap with the public.

Academic Foundations

Accuracy
The primary goal in all scientific communication is to maintain the accuracy of the work. My studies in environmental science and biology provide a background in staying true to the facts that I use to maintain trust when working with researchers.

Positioning
In order for the research or non-profit efforts to properly connect with its audience, there needs to be a solid understanding of the world it is being projected out into. Classes in communications, political science, and history provide this scope of knowledge.

Marketing
Once the facts and the audience are defined, the next stage is properly communicating the content outward. Training in marketing techniques, design, and copy writing are essential to make content both appealing and understandable to wide audiences.

Distrust in Science: By the Numbers

37% of Americans can be considered scientifically literate according to a 2014 Pew Report

28% of respondents to a national survey had “a lot” of trust in science as a whole, a 25% drop in the last 10 years according to Gues et al., 2019

35% of non-profit organizations are responsible for large portions of work done around the world to minimize environmental impacts and support at risk ecosystems and organisms.

Researchers

While researchers may have less need to maintain materials like a social media page or website, they are often lacking in their abilities to write things in a way that is accessible to the public. Researchers would benefit from guides in reviewing their writing style and in producing trimmed down content that still communicates the facts in order to hold the attention of the public and funders.

Non-Profits

Non-Profit organizations are responsible for large portions of work done around the world to minimize environmental impacts and support at risk ecosystems and organisms. It is extremely common for these organizations to lack the staff or necessary funds to support the development of websites or social media and often need this collateral to prove their credibility to supporters.

Future Directives

The eventual goal for my major would be to combine my different areas of study and channel them through my company, Telemitra, to provide marketing services to researchers, labs, and environmental non-profit organizations. I hope to arm them with the credibility and visibility they need to acquire support in their work to make the world a better place. In the shorter term, I plan to design a reusable guide that can help these groups to jump-start their marketing on their
Lily Lauben, '20 – Socially-Conscious Gaming

Steps to CSDN Status

- What is your story, what is your problem?
- Can you argue your case?
- Who supports your vision?
- Which courses give you the tools to solve your problem?
- Continuous modification of your vision and the courses you need.
- Networking with like-minded individuals.
- Constant open-mindedness and curiosity.
- Lack of fear in pursuing unknown territory.
- Confidence in yourself and your vision.

My Story

Objective: To design a curriculum that integrates biomedical engineering, biology, and psychology with nursing influences in order to deliver on my ambition to become a socially relevant neurosurgeon.

Biology
- Backbone to basic understanding of the human body.

Psychology
- Backbone to basic understanding of humans.

Biomedical Engineering
- Technology used to aid medical professionals.

Nursing
- Base level of patient care and interaction.

Future Directions

- Completion of all pre-med course requirements.
- Internship/fellowship/co-op in relevant field.
- Increased exposure to the medical field.
- Networking with professionals more closely linked to neurotechnology.
- Application to medical school.
- Matriculation into medical school.
- Future in the medical field as a neurosurgeon.

Acknowledgements

Would not have been possible without the continuous advice and encouragement from Kevin Egan and Anna Nye.
COMMUNICATION IN GLOBAL MEDICINE:
DEVELOPING A GLOBAL PERSPECTIVE ON MEDICINE

Rheanna Vimawala, CSDN Class of 2017 • Center for Interdisciplinary Inquiry | Drexel University

The study of communication within & between global cultures with the aim of creating collaborative, culturally-sensitive solutions to world health issues.

INSPIRATION

DEC 2014: Global Medical Brigade to Ghana, Africa
I was inspired to explore disciplines that revolve around global public health and international collaboration after seeing disparities first-hand.
I want to understand international medicine as the integrative, collaborative field that it is.

LEARNING GOALS

Scratch more than just surface of cultural understanding and communication
Gain a nuanced understanding of global health issues
Prepare for leadership and service in an increasingly interdependent world

INTERNATIONAL AREA STUDIES

Links language study with other academic disciplines including:
- history
- sociology
- anthropology
- philosophy
Aims in development of responsible citizens who are aware of larger world issues and local concerns

Related Studies/Co-curriculars
GERMAN 101 (I) – 312 (VI)
COM 345 – Intercultural Communication
SUMMER 2011: AATG Exchange Program – Kiel, Germany

GLOBAL HEALTH

Improving the lives of vulnerable populations depends on the tenets of our international engagement.
Teaches the tools of public health research and action, and their application to population health issues in the U.S. and around the world

Related Studies/Co-curriculars
APRIL 2015: President & leader of 7-day Global Medical Brigade to El Chichicastenango, Guatemala

BIOLOGICAL SCIENCES

The structure & functions of living organisms at the individual cell to the full organism, and collectively to the community level.
An emphasis placed on human biology: the basic principles that help us understand normal human physiology and the molecular basis of human disease.

Related Studies/Co-curriculars

FUTURE GOALS

I hope to attend medical school & become an internationally practicing physician.
I plan to work in public health helping train, educate, learn from & work with leaders, scientists, and clinicians around the globe.

Prospective Endeavors
- Global Health Corps
- Critical Language Scholarship
- Doctors Without Borders

Acknowledgements

CSDN Academic Advisors – Kevin Egan & Ana Nye

My family & friends who inspired me to pursue my unconventional passions

CONNECT WITH ME!
LinkedIn

Bedside Buddy Nursing Volunteer @ the Children’s Hospital of Philadelphia
Student Researcher at Drexel Dermatology Clinic
Clinical/Clerical Assistant @ Princeton Brain and Spine Surgical Practice
LEARNING OBJECTIVES
- Explore health care from all sides in order to be equipped to solve large scale public health problems as a practitioner or public health official.
- Become well versed in the lexicons of all of my disciplines in order to successfully converse with experts in each field
- Give myself the freedom to explore related coursework that falls outside of my disciplines in order to further enrich myself with new perspectives.
- Find my niche within the health care system.
- Advocate for myself and my interests.
- Prepare myself for postgrad:
  - Complete Pre-Med course requirements.
  - Gain co-curricular experience in each of my disciplines in order to find my niche of overlap.

PROFESSIONAL GOALS
I want to help others and the avenue I have chosen to accomplish that is through health. While I do not have a precise job title in mind, my custom design major opens the door to many varying occupations, each falling within my interests.

Possible Future Career Paths:
- Medical School
  - ER Doctor.
  - Medical Examiner.
- Masters in Public Health
  - Conduct research on or engage in solving large scale health crises.

In these above possibilities and those unknown to me now, I hope to bring my well rounded interdisciplinary skills in order to be a successful problem solver in whatever line of work I end up in.

“Each man judges well the things he knows, and of these he is a good judge. And so the man who has been educated in a subject is a good judge of that subject, and the man who has received an all-round education is a good judge in general!” - Aristotle

HUMANISTIC HEALTH

BIO
CRIM
PBHL
PSYCH
BIO

STRATEGIES
- BIOLOGY
  - Ground my studies in the hard sciences.
  - Learn technical lab research skills.
- PSYCHOLOGY
  - Delve into the effects of health on the individual by studying the mind and behavior of people.
  - Gain empathy into what other people are going through by becoming better educated on various psychological and mental health conditions.
- CRIMINOLOGY
  - Focus on the effects of nature AND nurture on people and how the combination of the two can lead to criminality.
  - Examine the overlap of health disparity areas with high crime rates.
- PUBLIC HEALTH
  - Learn how to approach a problem from the population level in order to be better equipped to help individuals of that population.
  - The discipline that ties all my other areas together.
- THEATRE (my minor)
  - Better my communication skills while collaborating on projects with end results larger than my individual contribution - develop teamwork skills.
  - Deepen my empathy as I step into a character in a performance.

CO-CURRICULAR
- STAR Scholars
  - Worked as a research assistant on the Police Nurse Community Health Partnership with Dr. Kane from the criminology department.
  - Learned the already existing relationship between criminology and public health in the communities they examine.

- King’s College London Study Abroad
  - Studying Global Public Health and London’s Theatre.
  - Global Public Health directly relates to my coursework and being in a new country surrounded by classmates from all around the world will offer me an entirely new perspective on solving global health problems.

- Future Co-Curriculars:
  - Hospital volunteering.
  - Fellowship Opportunities: Fulbright and Peace Corps.

PENNONI
HONORS COLLEGE
Center for Interdisciplinary Inquiry
Co-op and Career Opportunities

- Microsoft
- Facebook
- Lockheed Martin
- The Philadelphia Water Department
- Comcast
- Urban Outfitters
- The World Bank
- Outside Magazine
- Drexel’s Functional Fabrics Lab
- Rolling Stone Magazine
- The Pennsylvania Department of Transportation
“The biggest strength of my major has been that it demonstrates my ability to set a goal and achieve it…Most importantly, it’s taught me how to recognize a problem, how to build a solution with few or no guidelines, and how to seek out mentorship and guidance to enhance that process.”

Nicole Vecere, Class of 2016
User Experience Design
Currently employed at Microsoft, Seattle

“The Custom-Designed Major program has bolstered my ability to tear down the barriers between the classroom and the rest of the world; to contribute positively to my community and engage others; to commit to lifelong learning and thinking outside of the box; to fully integrate science, industry, and art.”

Michael Schulte, Class of 2015
Corporate Policy and Environmental Risk Management
Currently Employed at the World Bank, Washington DC
The Custom-Designed Major: Application Process
The Application Process

• In addition to the Drexel Common Application, candidates must submit supplemental materials that make up an application portfolio.

• Candidates work on multiple drafts of this portfolio with program advisors, receiving and working through detailed feedback until the materials are ready to be submitted for departmental review.
Application Portfolio

- **A Vision Statement (personal essay)** that outlines the student’s goals and explains how the disciplines they hope to pull from come together to form a cohesive and purpose-driven curriculum. Applicants must also defend their proposed path of study by discussing why their goals could not be met within a more traditional path or combination thereof.

- A proposed **Plan of Study** that details, term by term, a plausible curriculum for achieving that student’s aims by drawing upon two or more existing Drexel programs.

- **Two Letters of Support** from an individual who can speak to the student’s desire and ability to embark on an unconventional, individualized course of study; one letter must from a teacher/faculty member.
Thank you, and please contact us with any questions!

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