

Faculty Senate

May 4, 2022

ALL IN-PERSON ATTENDEES PLEASE SIGN-IN ON ONE OF THE SHEETS

ALL ZOOM ATTENDEES PLEASE SIGN-IN VIA THE CHAT

SENATORS: Name and Department

FACULTY GUESTS: Name and Department

NON-FACULTY GUESTS: Name and Affiliation

PRESS: Name and Affiliation

Gayogó:hó:nq' Land Acknowledgement

Cornell University is located on the traditional homelands of the Gayogó:hó:nq' (the Cayuga Nation). The Gayogó:hó:nq' are members of the Haudenosaunee Confederacy, an alliance of six sovereign Nations with a historic and contemporary presence on this land. The Confederacy precedes the establishment of Cornell University, New York state, and the United States of America. We acknowledge the painful history of Gayogó:hó:nq' dispossession and honor the ongoing connection of Gayogó:hó:nq' people, past and present, to these lands and waters.

This land acknowledgment has been reviewed and approved by the traditional Gayogó:hó:nq' leadership.

REMINDER – May 11th

2022 Faculty Election by 12pm (noon)

- Email from “OptaVote Voting Link” in email inbox
 - Associate Dean of Faculty
 - Faculty Trustee Candidates
 - University Faculty Committee
 - Nominations and Elections Committee
 - Senators-at-Large

Faculty Forum: Increasing the Transparency and Effectiveness of Faculty Senate Proceedings

- 3:30-4:30 via Zoom

HYBRID FORMAT

In-person and remote attendance

ZOOM CAPTIONING

Choose “**Live Transcription**” in the Zoom menu

TO SPEAK

2 minutes to pose a question or make a statement

Identify yourself: First name, Last name and Department

Zoom first (Muted until called)

Floor next (to allow Senators to come up to the microphone)

Back to Zoom

Back to Floor

CHAT

Want to attend to statements on the floor; **set to everyone**

Do not want to disadvantage in-person attendees; 2 minutes

Please limit chat to sharing resources with each other

Will be published ‘as is’ publicly on DoF website after meeting

RECORDING

Started at 3:30PM

Audio and chat will be posted on agenda webpage after meeting

Approval of Zoom Transcription Minutes

April 20, 2022

Unanimous consent requested

Raise hand (in-person or remote) for corrections only

Q & A with President Martha Pollack

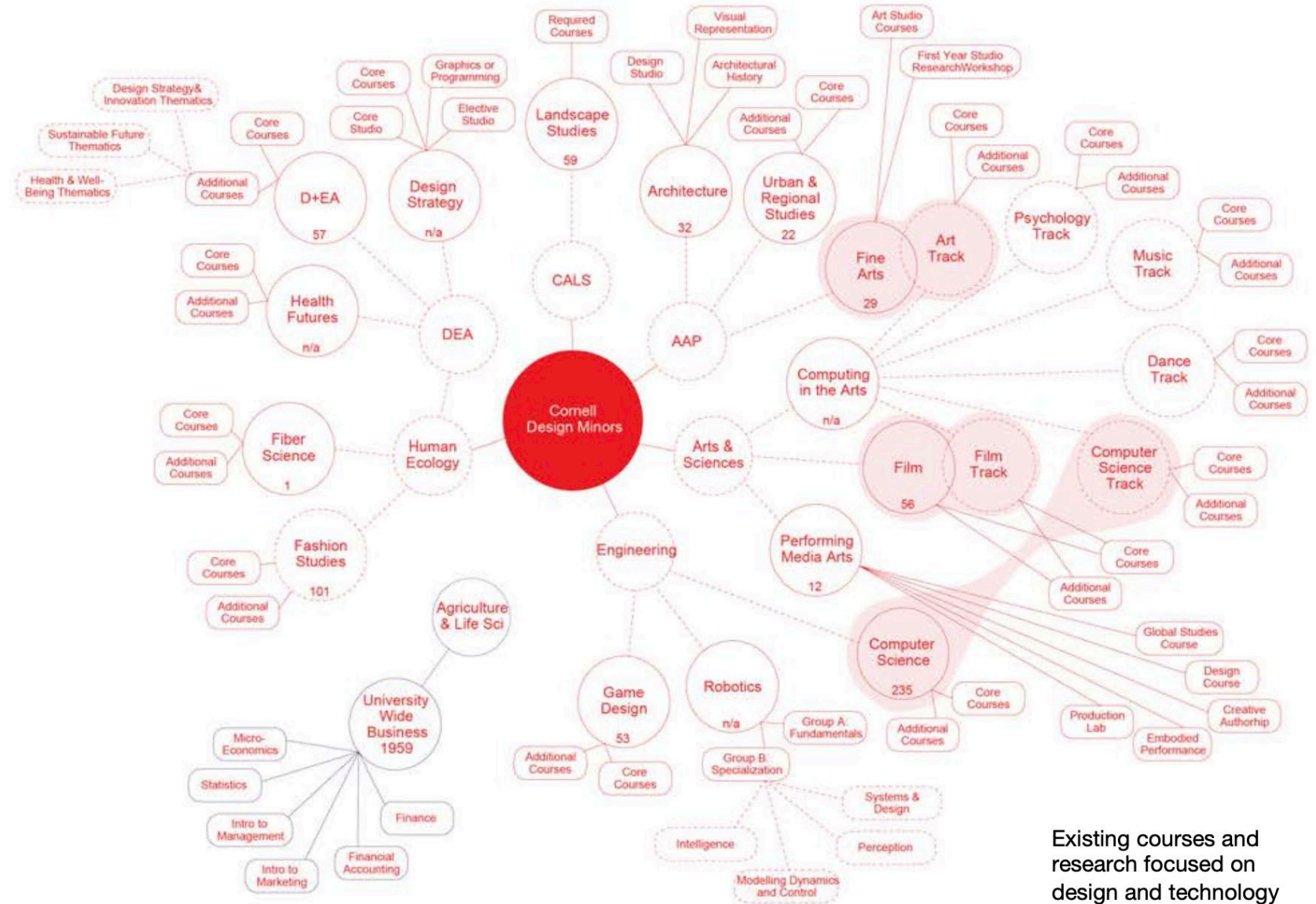
Computer Science

Design Technology Department in College of Architecture, Art, and Planning

Professor Jenny Sabin, Architecture and Professor Wendy Ju, Information Science

Design & Technology

Our Cornell Expertise



Design + Technology

Existing courses and research focused on design and technology topics at Cornell.

Faculty Task Force

INVOLVEMENT

Associate Prof. Jenny Sabin
Architecture (AAP) ** (co-chair)

Associate Prof. Wendy Ju
Information Science (Jacobs Technion-Cornell
Institute at Cornell Tech) *** (co-chair)

**Associate Prof. Huiju Park & Professor Keith
Green**
Human Centered Design (CHE)

Assistant Profs. Timur Dogan and Dan Torop
Architecture & Art (AAP)

Professor of Practice, Mukti Khaire
SC Johnson and Cornell Tech

Associate Profs. Rob Shepherd & Guy Hoffman
Mechanical and Aerospace Engineering
(Engineering)

**Professor Francois Guimbretiere & Associate
Prof. Malte Jung**
Information Science (CIS)

Professor Uli B. Wiesner
Materials Science & Engineering (Engineering)

Professor Itai Cohen
Physics (Arts & Sciences)

The Charge on Design Education & Design Research

at Cornell in areas related to Design+Technology

Excellence

Create a program of excellence in Design+Technology for Cornell that fosters synergies across multiple colleges.

Uniqueness

Create a unique interdisciplinary model for Design Education and Design Research

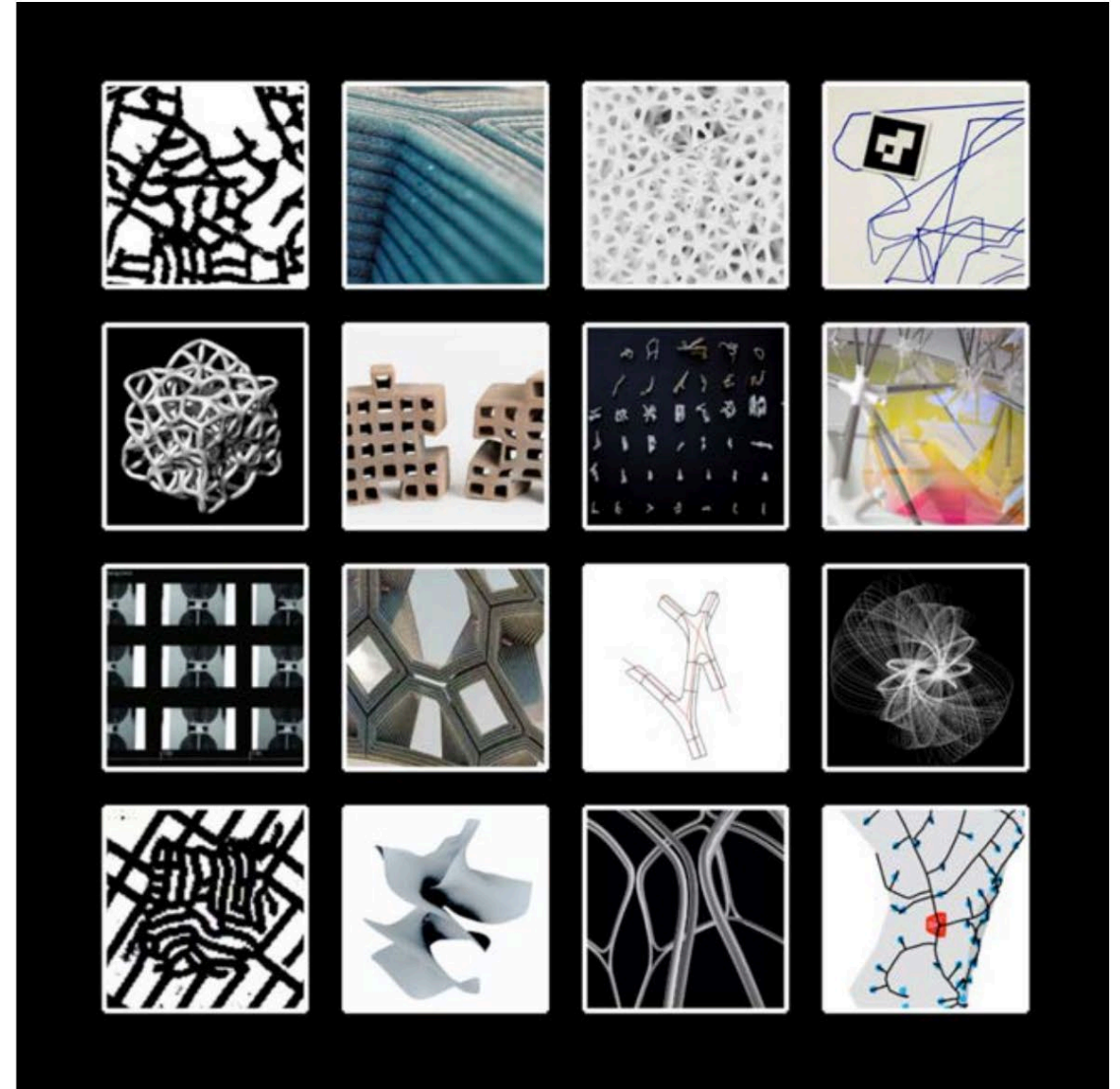
Opportunity

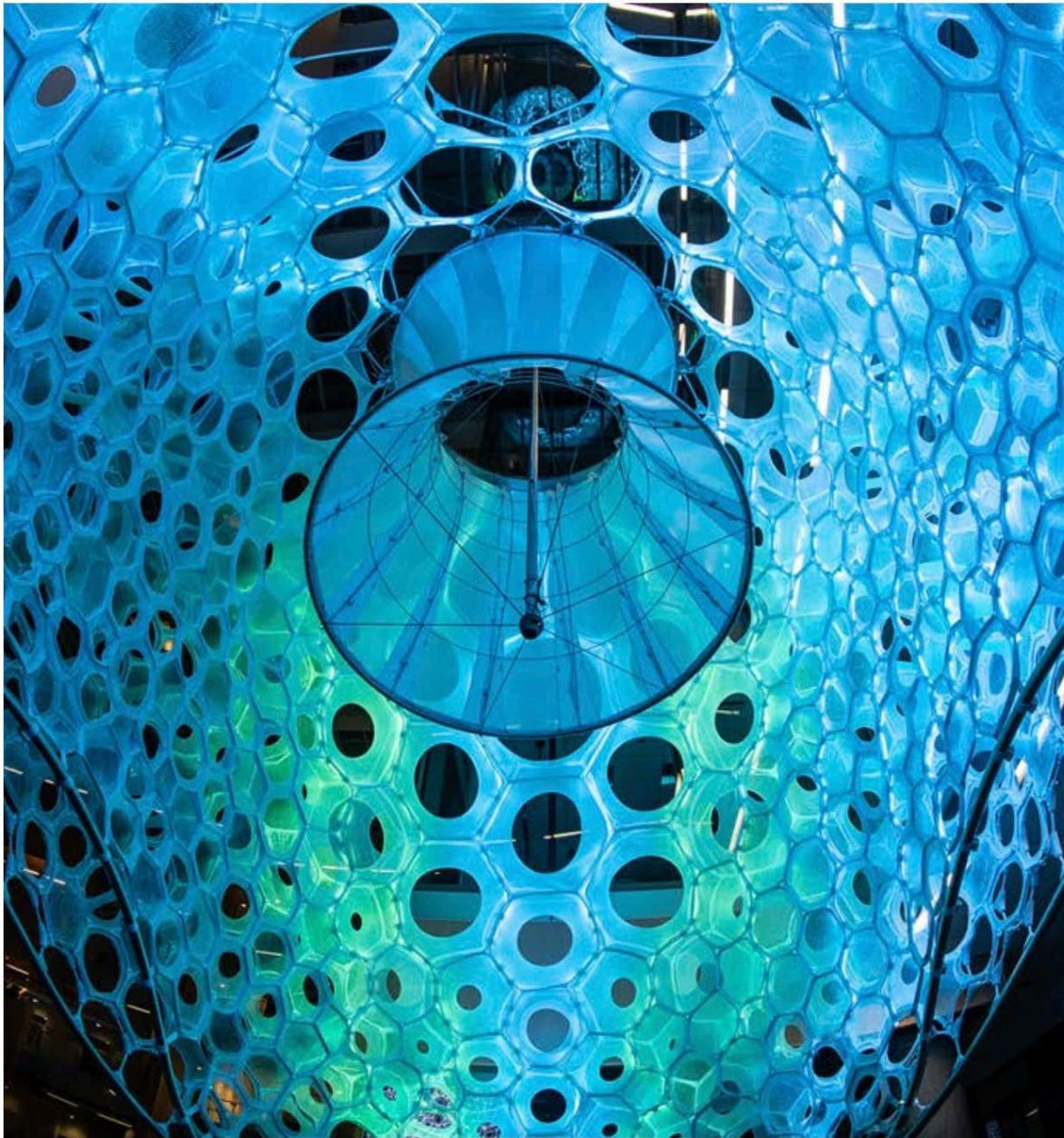
Identify opportunities for undergraduate and graduate design degrees and courses & develop possible structures and a road map to develop such an entity

We will be a leader in Design & Technology

The College is well poised to leverage its strengths in applied creativity to be a **leader in Design & Technology.**

This can be catalytic on multiple levels for **education, industrial impact, and research innovation.**





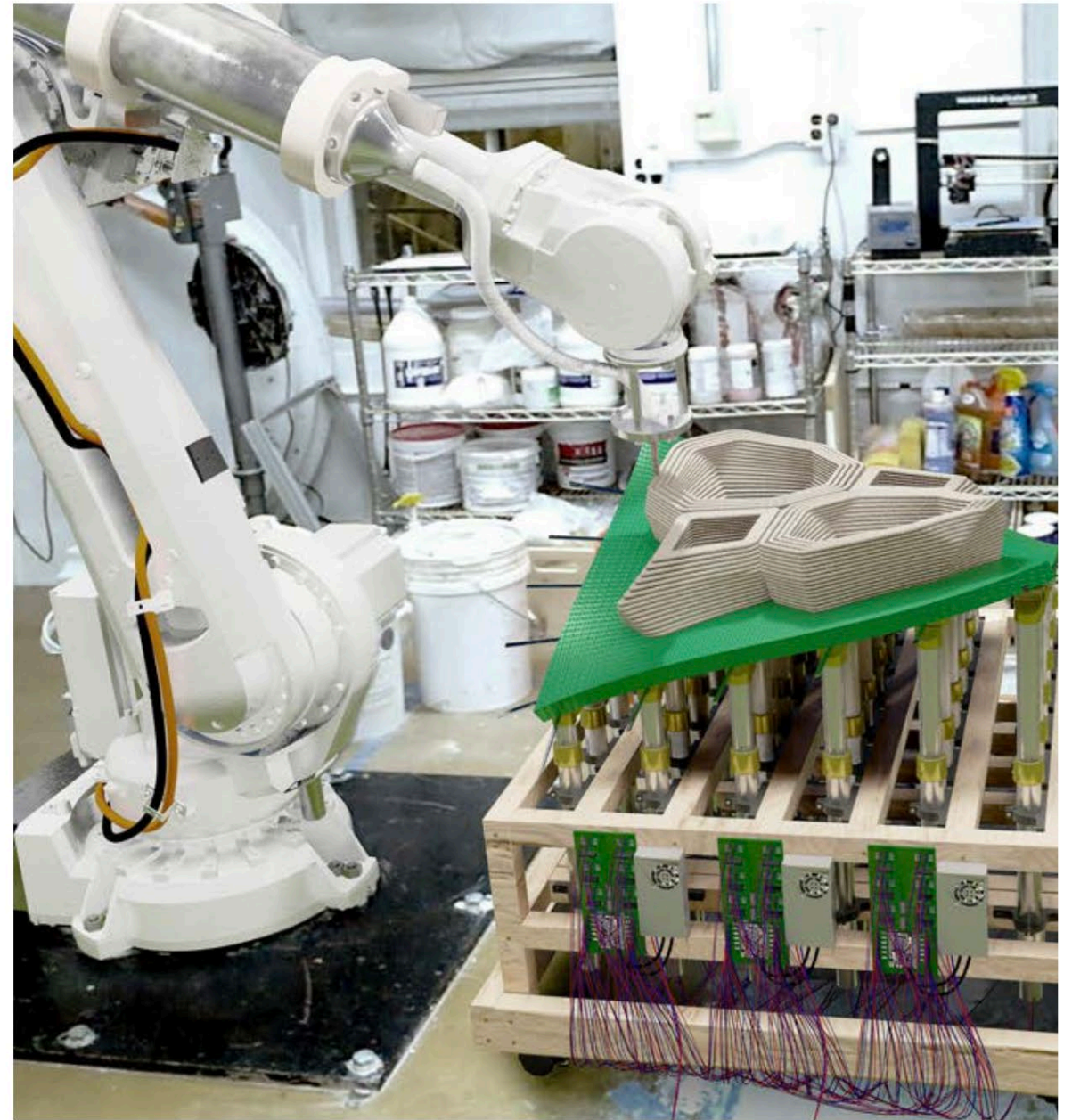
Inspiring New Collaborations



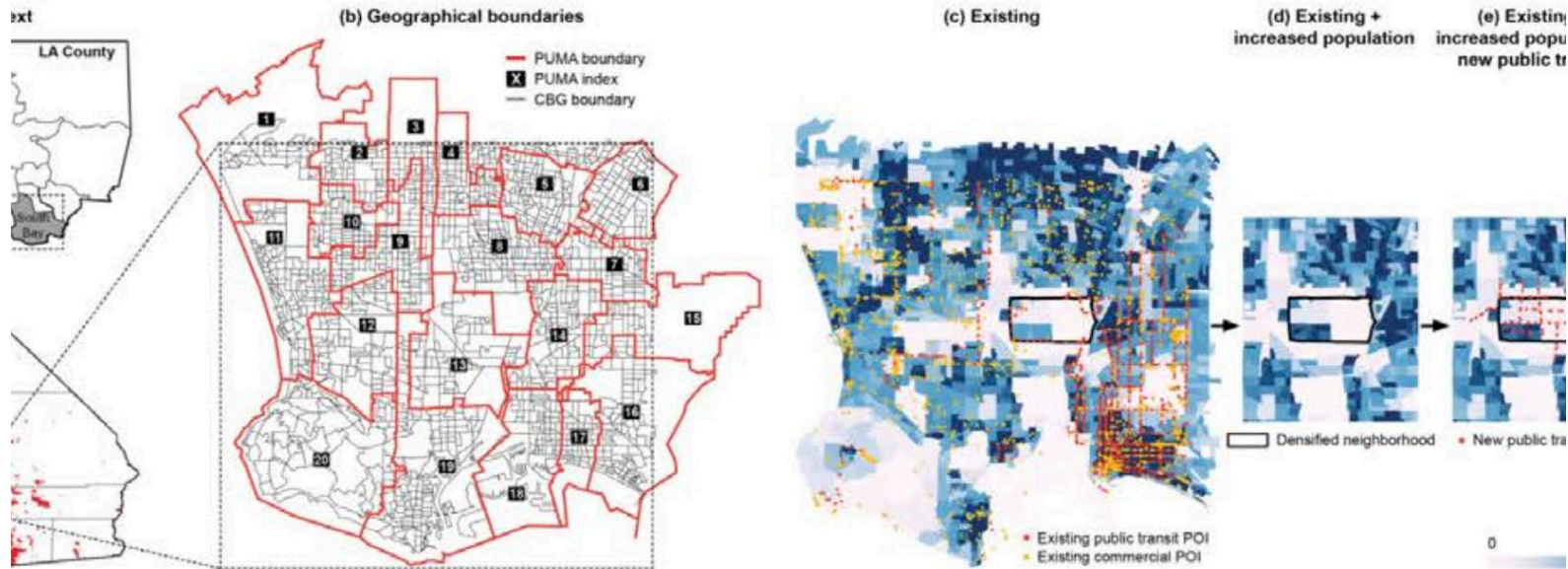
Harald Haraldsson, Director of the XR Collaboratory and MS MDC graduate Students working in the lab @Cornell Tech



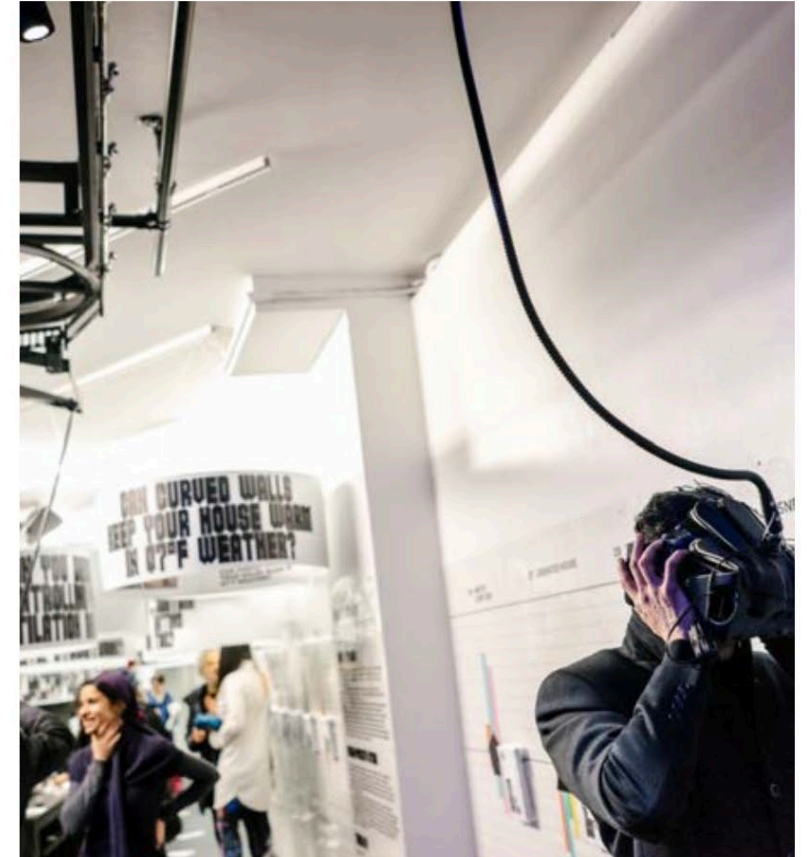
MS MDC student, Willam Qian



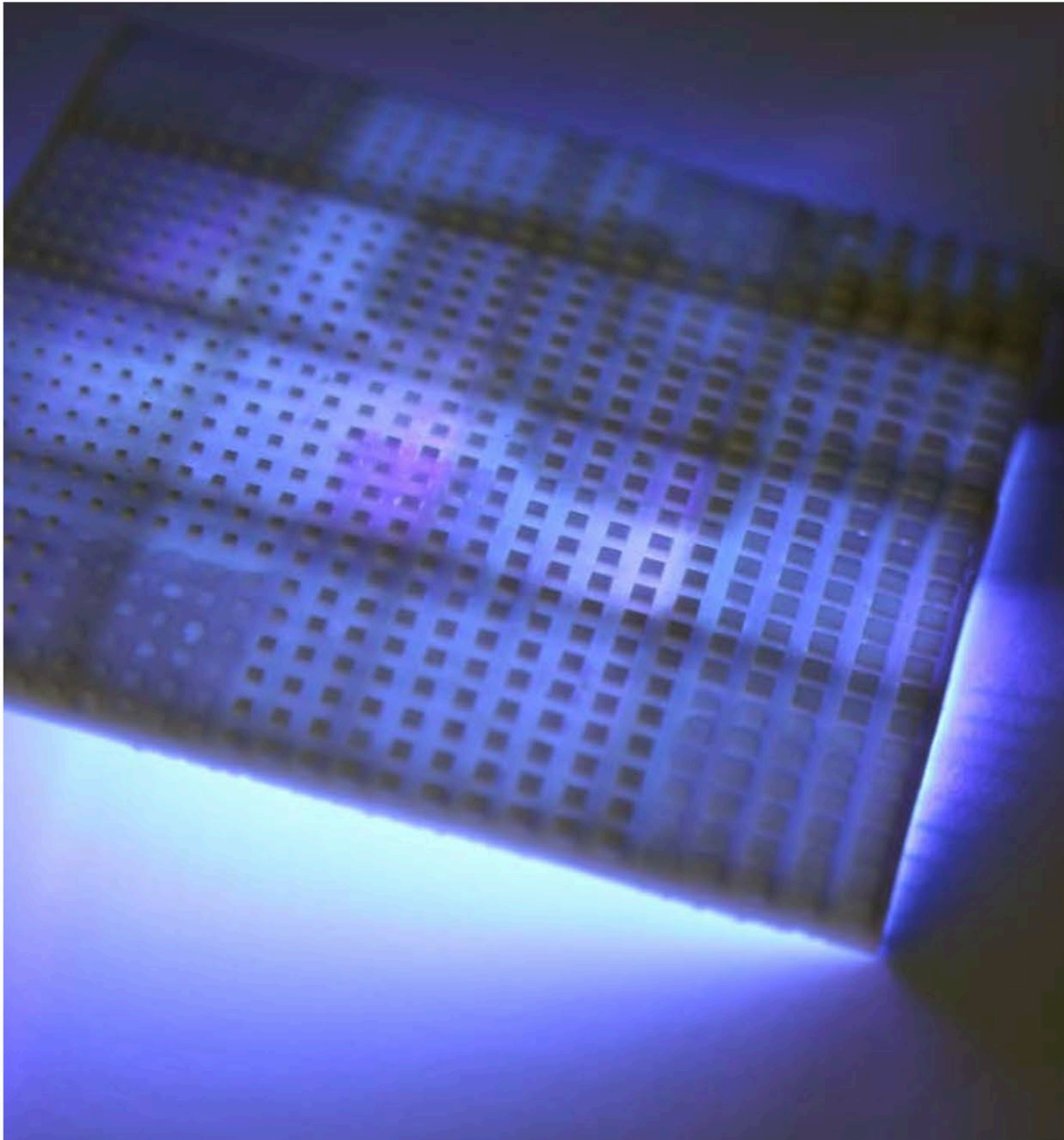
Cutting Edge Creative Research at Cornell AAP Now



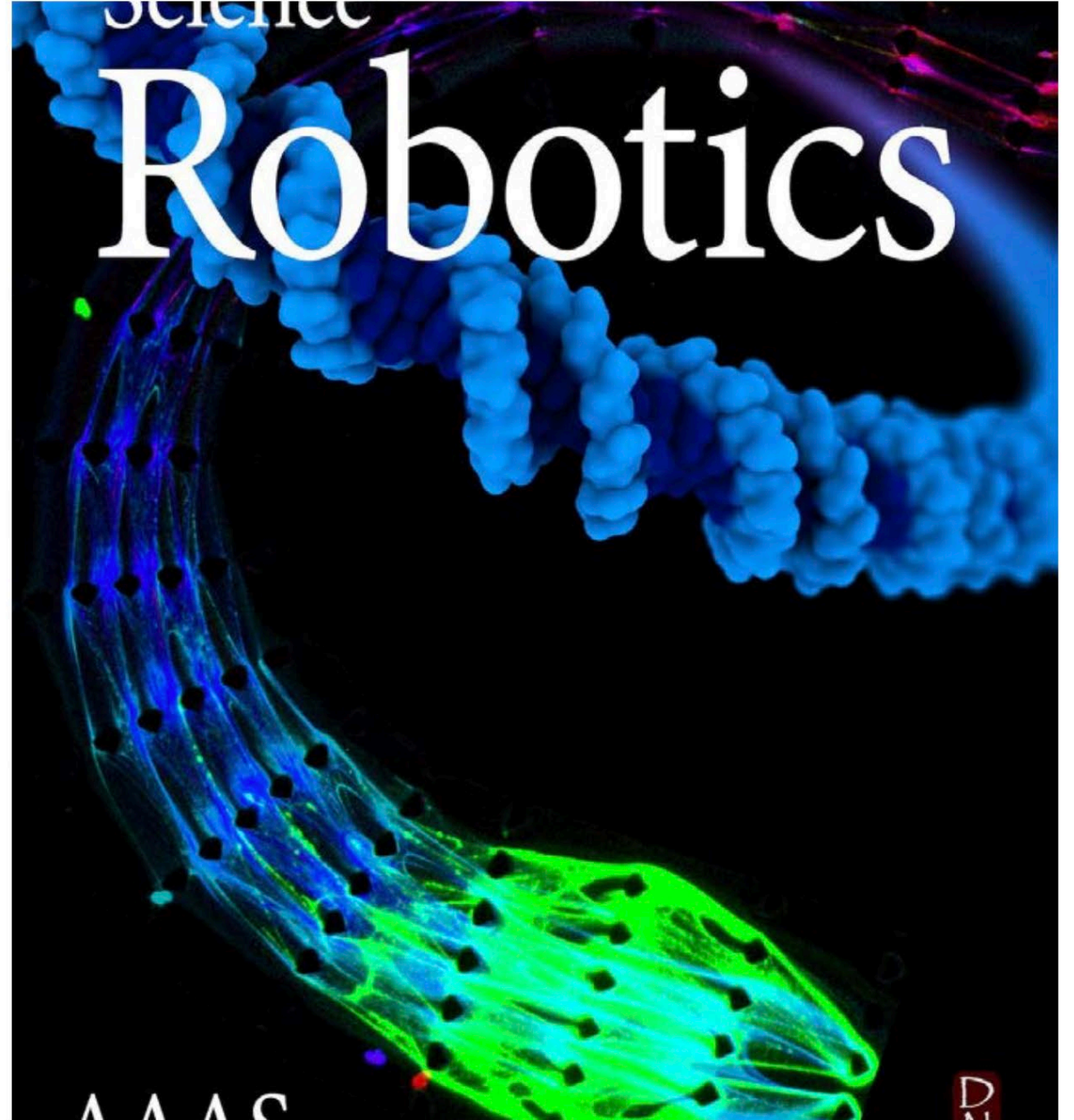
Simulating Travel Patterns, ES Lab, Prof. Timur Dogan



Farzin Farzin, *Some World Games* at Closed Worlds opening, Storefront for Art & Architecture



CORNELL AAP PolyBrick 3.0, a collaboration between Sabin Lab & Luo Labs (left)



Luo Labs, DNA material capable of metabolism, in addition to self-assembly and organization (right). MAY 2022

Pilot program w/ Cornell Tech



Integrating Teaching in Design+Technology across campus

DESIGN 6297 | ARCH 4589/6509 Fall 2021



Coding for Design




Online - Friday 9:00 am - 11:00am
Instructor: *Flavio G. Michalatos*

CORNELL AAP DEPARTMENT OF ARCHITECTURE

The course introduces students to fundamental concepts and techniques for the integration of coding within design workflows. The emphasis of the course is on the practical applications and design potential within such techniques while helping students understand the theoretical background and conceptual implications behind them. From a technical point, students will be introduced to computational geometry and computer graphics and will handle both discrete and continuous forms. The aim is to develop the foundational skills and knowledge in order to be able to represent, analyze, synthesize and act upon spatial structures at various scales and levels of abstraction. The course is structured as a series of lecture/workshops accompanied by practical tutorials that will help students develop their coding skills.

TECH 5900 Fall 2021



Multidisciplinary

Students build their skills on teams with representation from all seven master's programs (as well as AAP students).


Real challenges

Teams practice customer-driven development processes by creating prototypes of digitally-enabled solutions of real-world challenges.

Practitioner driven

Students engage directly with practitioners to learn first-hand about industry practices and receive direct feedback about their work.

Product Studio



In Person: Tuesdays and Thursdays from 2:45pm-7:30pm, Cornell Tech Campus
Instructors: *Karen Grotto and Josh Hartmann @Cornell Tech*
Advisor: *Jeremy E. Sabin @AAP, jcs57@cornell.edu*, Director of Studio: *Isabella Elberger, isabella.elberger@cornell.edu*
CORNELL AAP DEPARTMENT OF ARCHITECTURE & CORNELL TECH

Product Studio is a mandatory course for all master's students at Cornell Tech and is part of an exciting new pilot program between AAP and Cornell Tech. During the semester, you will work within a collaborative team with students from AAP and Tech to develop a new tech product or service in response to a challenge posed by a real company, institution, or non-profit. The teams are composed of students from AAP and across the Cornell Tech campus — engineers and computer scientists, architecture, planning, law, business and information systems students — to maximize cross-disciplinary peer learning. A Company Advisor from the company provides support to the student team. You'll experience first-hand how the product development process works in the real world and begin to build a network within the New York tech community. Previous challenges have come from organizations as diverse as Bloomberg, the NYC Mayor's Office, Adobe, Anap, MITRE, New York Times, Google, Microsoft and IBM Watson. Every fall, leading startups, companies, and organizations in NYC pose business challenges to Cornell Tech. You and your classmates will develop and present new products, services and strategies that respond to these challenges. The world is being transformed by builders — individuals who combine engineering, business, design and interpersonal skills to build new products, services and businesses. Product Studio will provide you with the key skills to be a world-class builder. The best way to learn to be a builder is by building new products, services and businesses. Therefore, product studio will be organized around the central activity of building a new product, service or business model that addresses a need that will be presented to you in terms of a "how might we" challenge.

This course is limited to upper level B.Arch, M.S. AAD, and M.S. MOC students. Once enrolled, you may not drop this course. Please note that approximately 10 hours of remote pre-work group research will be required during the month of August in preparation for the semester. Product Studio is followed by Startup and BigCo Studio in the Spring semester. We encourage AAP students to strongly consider the year-long studio sequence as you will get the most out of the collaborative experience and curriculum.

DESIGN 6151 | ARCH 4685/6605 Fall 2021



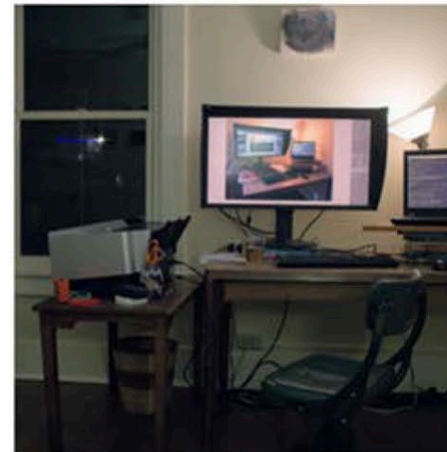
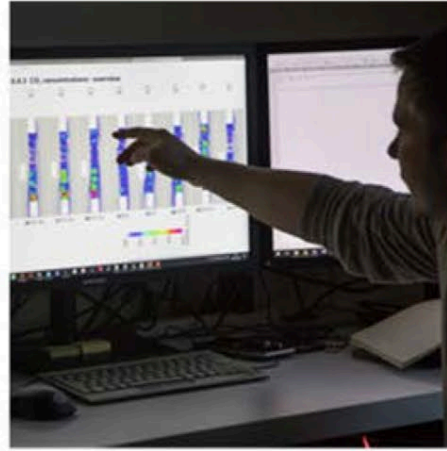
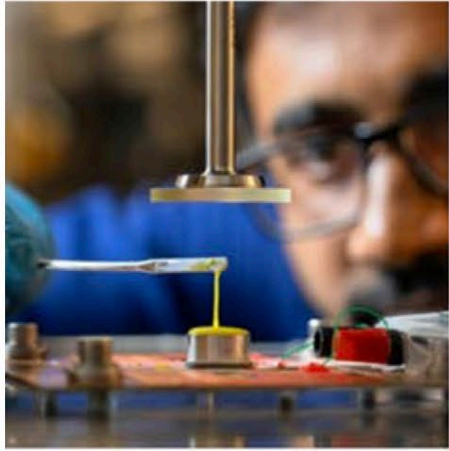
Design & Making across Disciplines

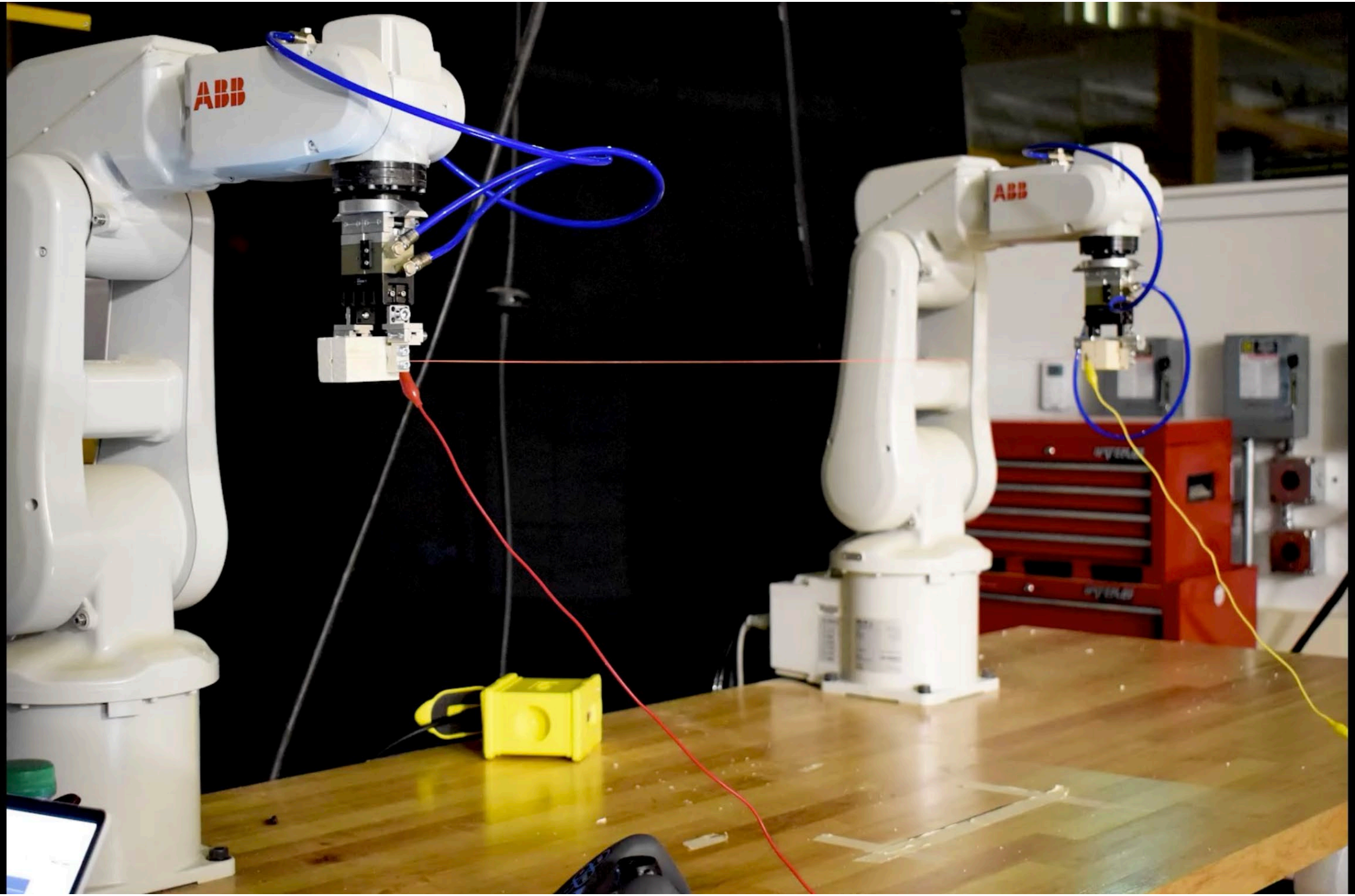


Hybrid: Thursdays 9:05-11:00am, Cornell Tech Campus
Instructor: *Jeremy E. Sabin (Architecture) / jsabin@cornell.edu*
Participating Instructors: *Jonathan Butler (Biomedical Engineering), Nate Cira (Biomedical Engineering), Windy Ju (Information Science), Marty Murlugh (Materials Science & Engineering), LR Weaver (Materials Science & Engineering)*
CORNELL AAP DEPARTMENT OF ARCHITECTURE & CORNELL TECH

Although there have been tremendous innovations in design, material science, bio- and information technologies, direct interactions and collaborations between scientists, architects, and engineers are rare. One approach is to couple architectural designers with engineers and scientists within a research-based laboratory studio to develop new ways of thinking, seeing, and working in each of our fields. This combined studio/seminar is an introduction to fundamental concepts and methods in design and emerging technologies across architecture, engineering, and science to prepare students with the necessary tools and knowledge for iterative, hybrid, and synthetic thinking in design & making across disciplines. Course work includes exposure to different theories, research, and practices of design and emerging technologies, making and digital fabrication (3D printing), computational and generative design, interaction design, new materials, sustainability, and bio-inspired design. Emphasis will be upon problem generation over immediate problem solving with specific focus in areas of materials and making, generative design, simulation, computational design, physical modeling, and digital fabrication within a hybrid laboratory setting. This combined studio and seminar aims to engage and develop hybrid thinking in design through generative processes and digital fabrication of material and form across disciplines. Students from diverse disciplinary backgrounds investigate the intersections of architecture and science and apply insights and theories from biology and mathematics to the design, fabrication, and production of material products, prototypes, and digital tools. Project work will focus on responsive and adaptive interfaces and materials across scales and disciplines with a focus on human interaction, adaptive architecture, energy storage, and information display. The first half of the semester will be co-taught by colleagues in architecture, information science, biomedical engineering, and materials science and engineering.

Collaboration across Design units at Cornell

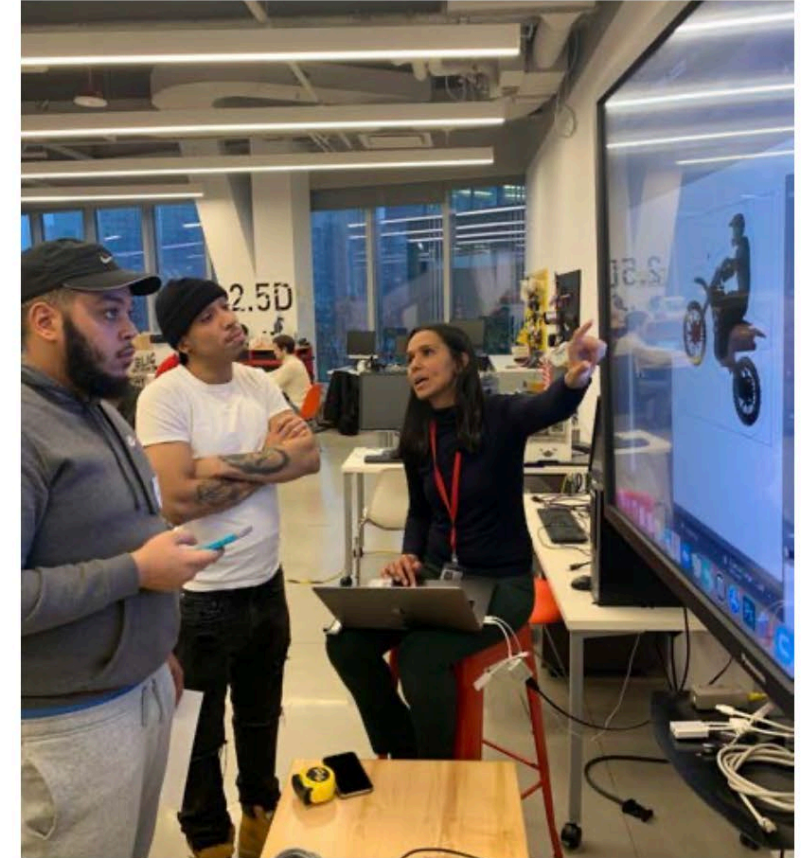




Building Community through Design & Technology



Prof. Jenny Sabin teaching a workshop in Long Island City at MoMA PS1



Workshop led by MakerLAB Director, Niti Parikh, at Cornell Tech with interested organizations around New York City

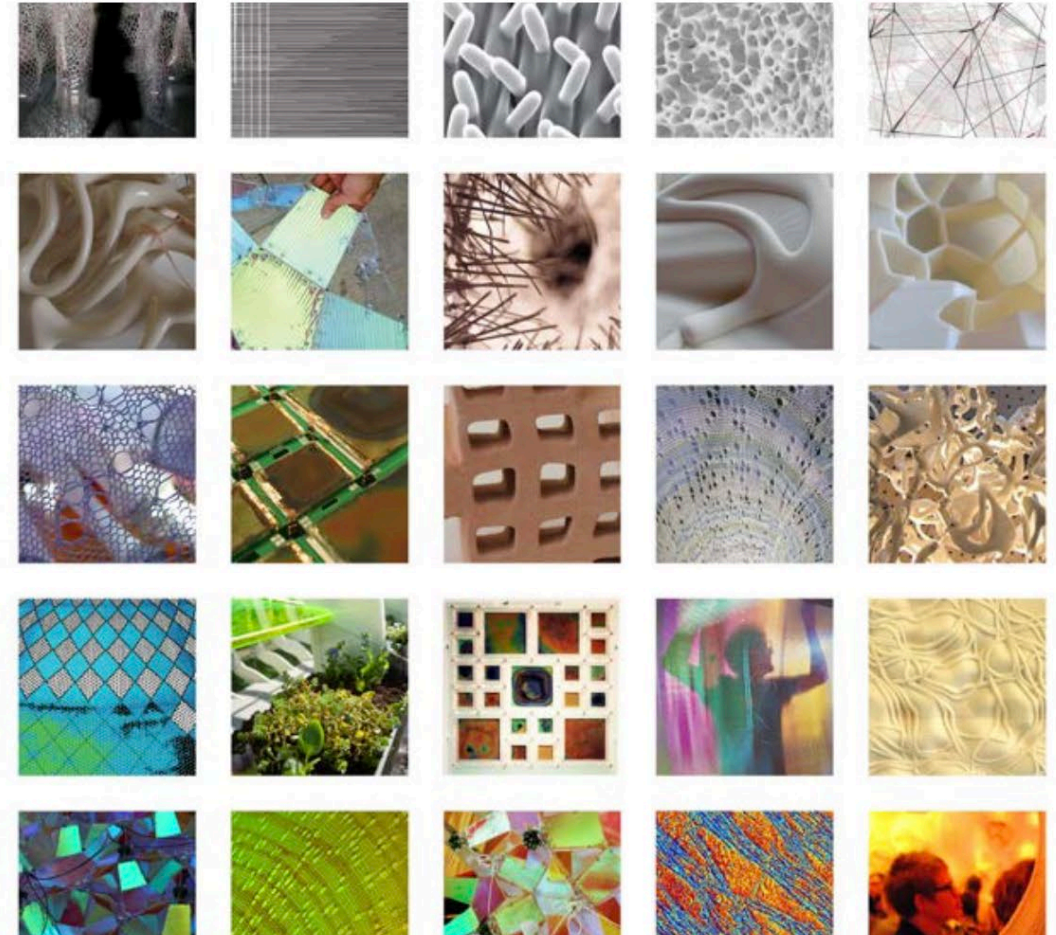
M.S. Design Technology (D+Tech)

2 Streams

- Thesis Centered Design Research Program
- Studio / Professional track @Cornell Tech

The Design Technology program is a two-year degree culminating in a master of science. Students pursue 1 of 2 tracks, a thesis-centered design research program (Ithaca-based) or a Studio / Professional track (Cornell-Tech based).

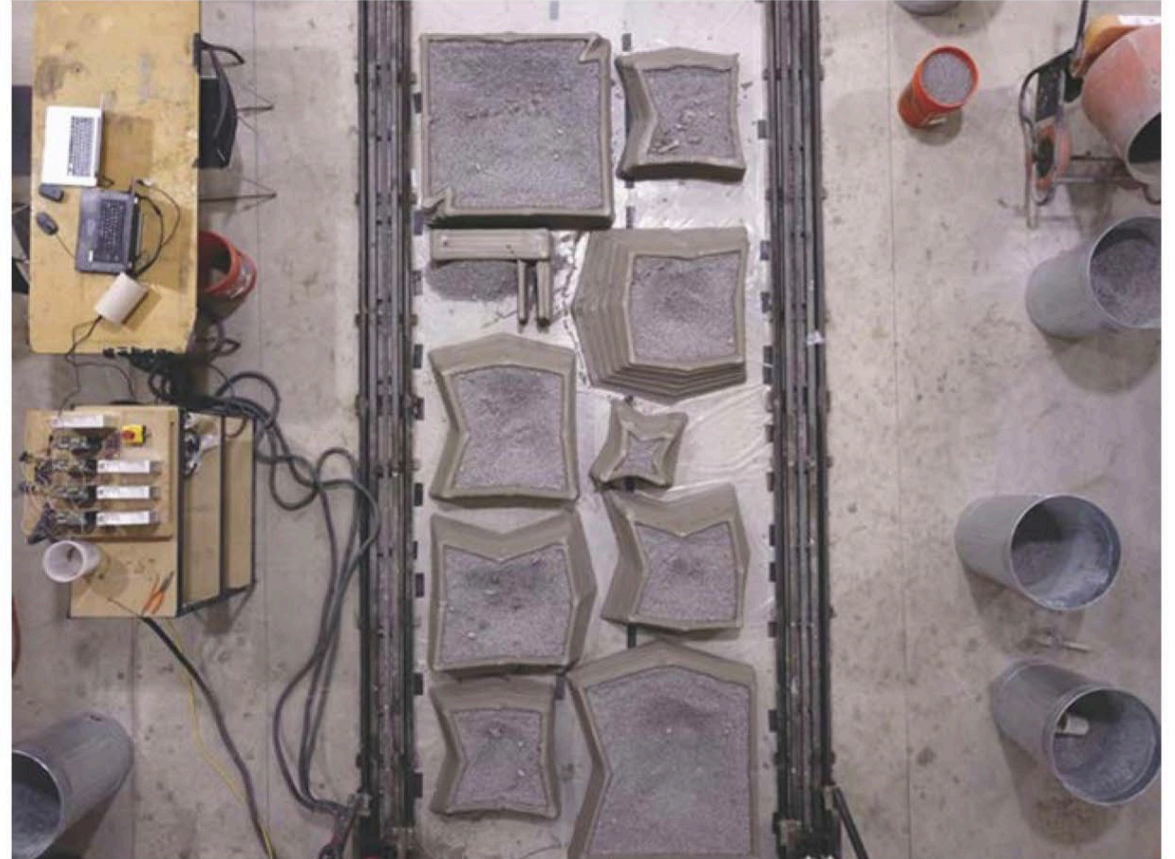
Thesis Subtopics:
Matter Design Computation
Sustainability
Ethics
Computation
Advanced Materials
Big Data
Biomimicry
Environmental Phenomena
Cognition
Ecology
Digital Fabrication
Robotics
AR/VR
Wearables
Nano-Design



Design+ Materials

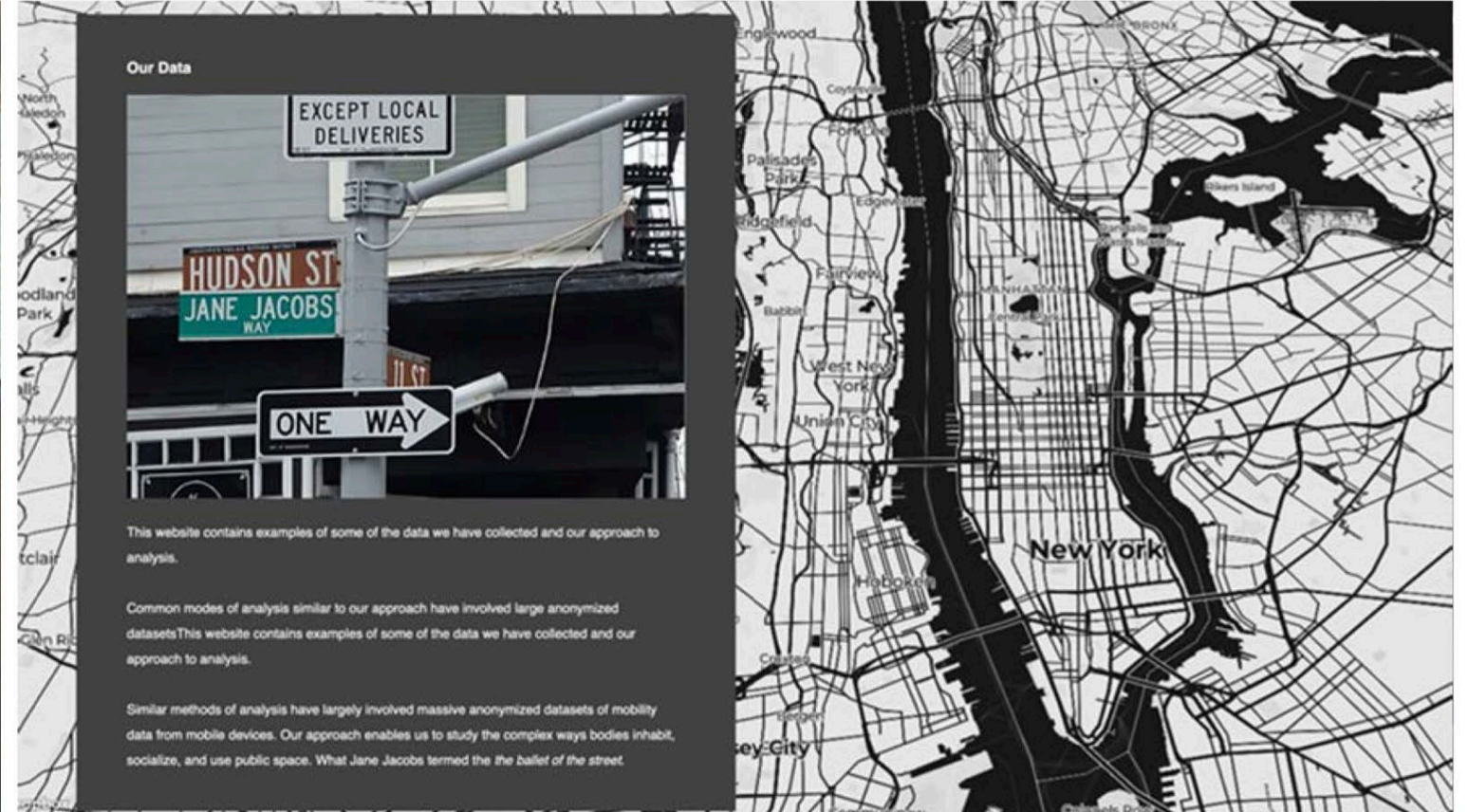


Research by Robotic Construction Lab (RCL) led by Prof. Sasa Zivkovic @Cornell AAP; robot cutting wood



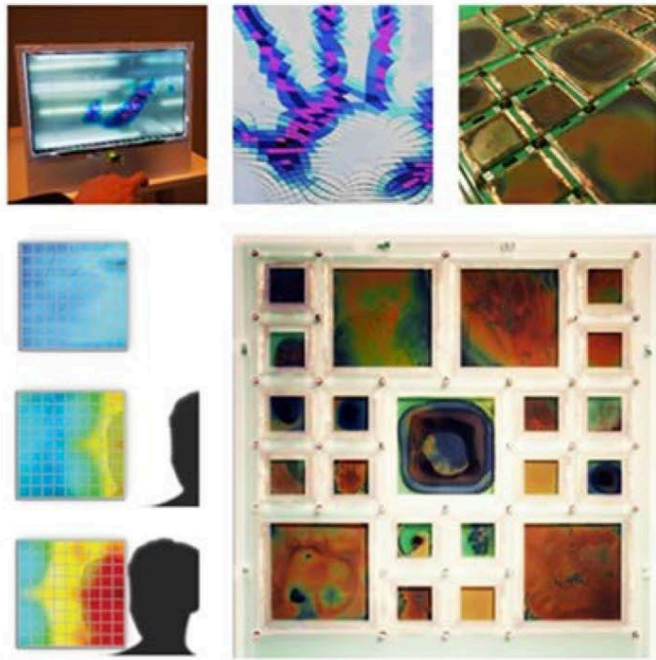
3D printed concrete

Design+ Interactions

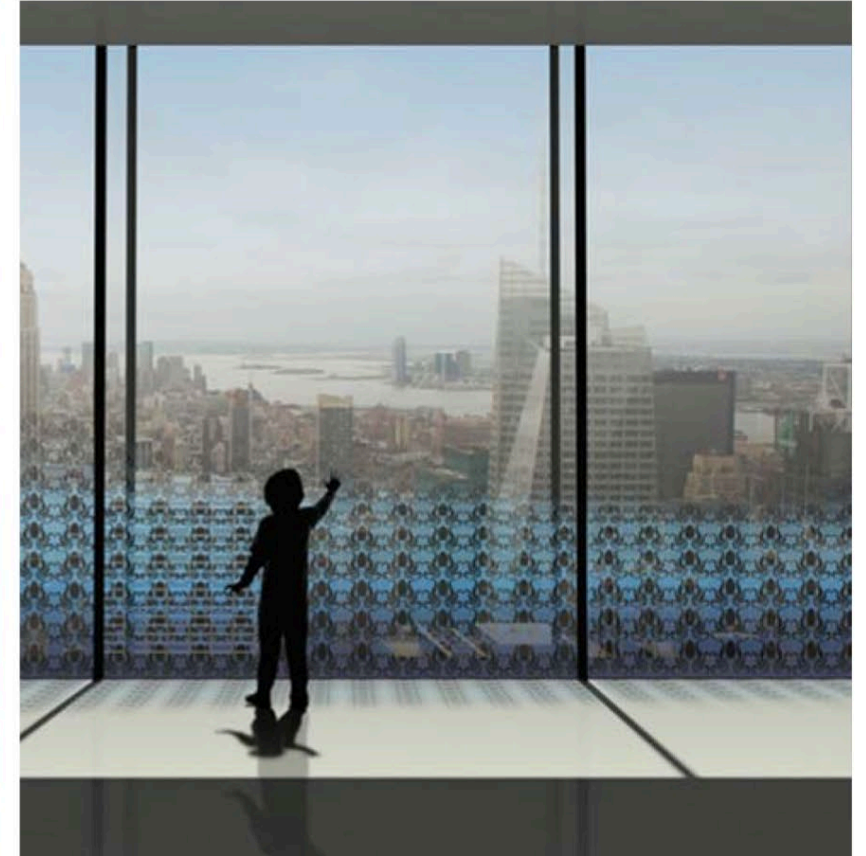
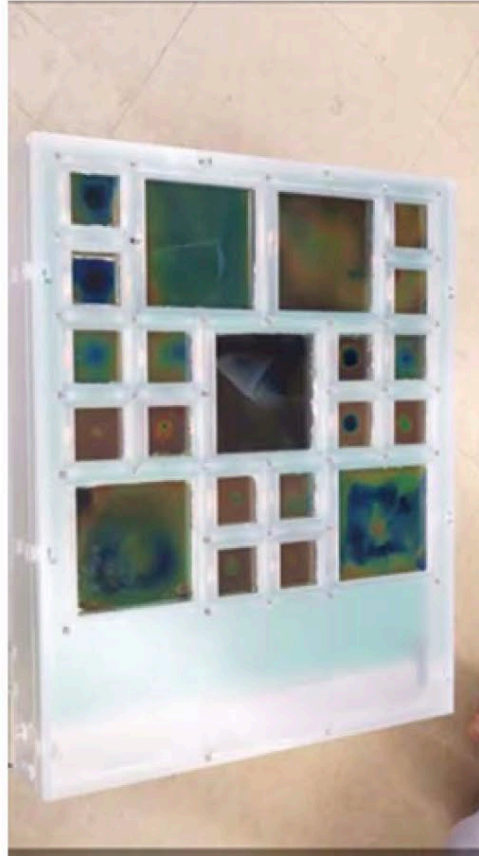


Research by Wendy Ju lab @Cornell Tech

Design+ Environments

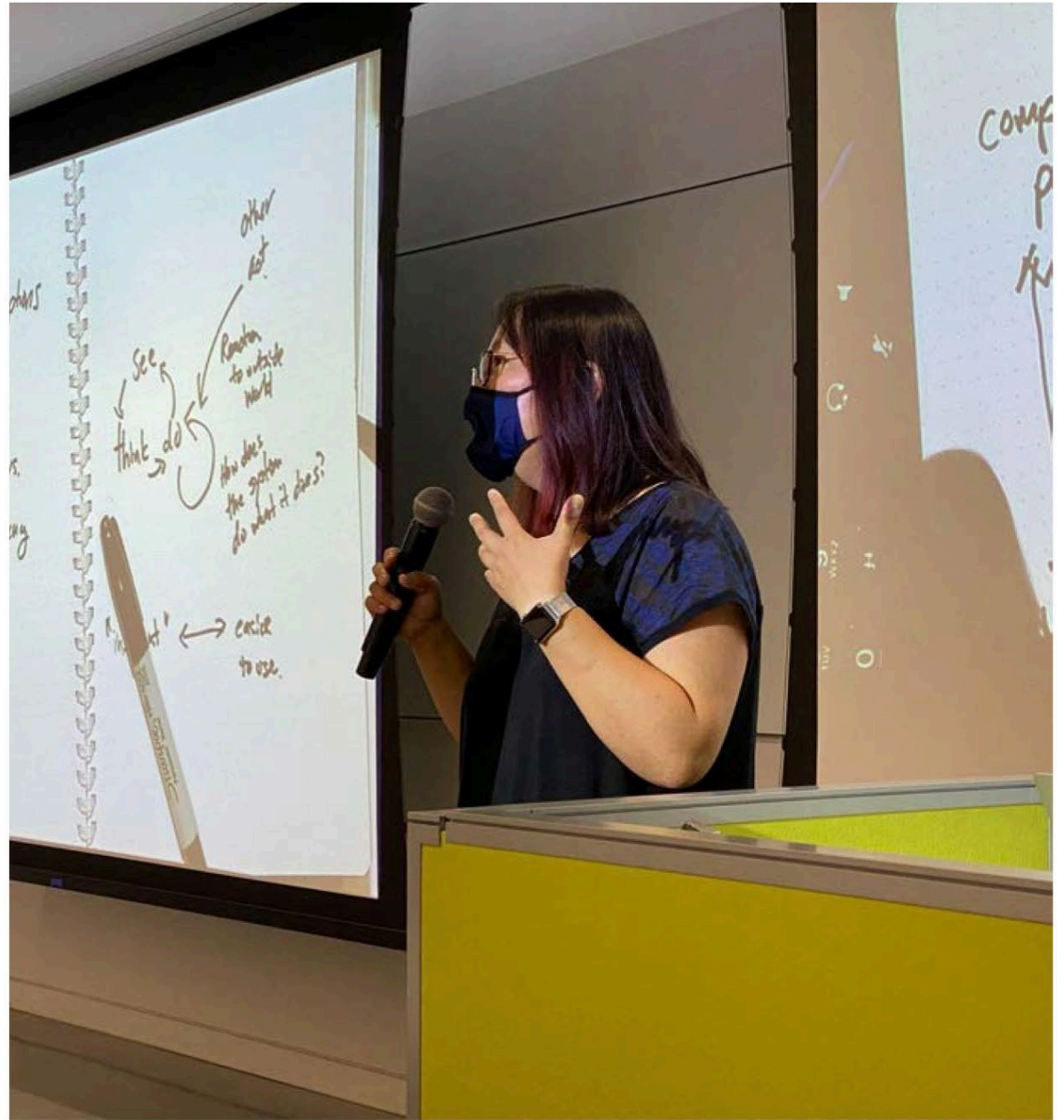


Architectural Team: Jenny E. Sabin, Andrew Lucia, Simin Wang, Giffen Ott; Cornell University
Materials Science Team: Shu Yang, Dengteng Ge, Yu Xia, Elaine Lee, Jie Li, Su Yeon Lee; University of Pennsylvania
Electrical and Systems Engineering Team: Jan Van der Spiegel, Nader Engheta, Milin Zhang, Hongjie Zhu, Xilin Liu; University of Pennsylvania
Cell Biology Team: Kaori Ihida-Stansbury, Keith Keenan, Thien Nguyen, Juliana Ames, Peter Lloyd Jones; University of Pennsylvania



Research by Sabin Lab @Cornell AAP; eSkin, National Science Foundation EFRI SEED 2010-2014

Adaptive building skin



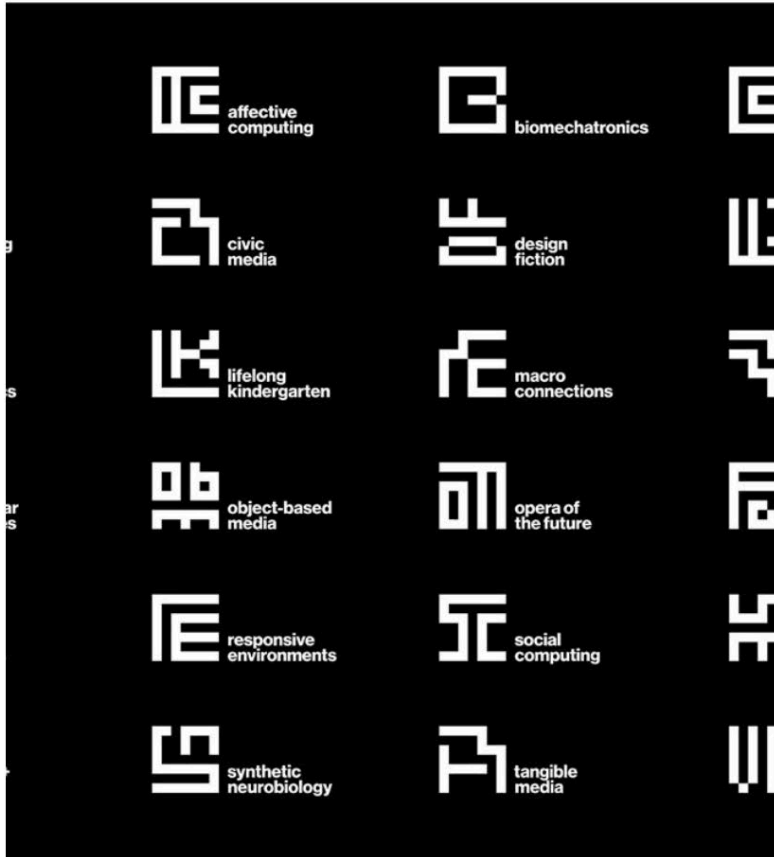
Technology Development is gaining Research Prominence

The US Innovation and Competition Act of 2021 authorizes over \$100 Billion for advanced technology research. It passed the US Senate in June with bi partisan support.

NSF Director Panchanathan proposes a seventh research directorate, Technology Innovation and Partnerships, organized around applied technology and entrepreneurship.

We believe that *DESIGN* is the critical element to synthesizing and applying basic research across disciplines to become technology

Our Peers



MIT Media Lab



HCII, Carnegie Mellon University



d.School, Stanford University

The new department will contribute to and enhance design innovation and design impact at Cornell and beyond.



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Thank you

Senate Discussion

**Real Estate Department in College of Architecture,
Art, and Planning and SC Johnson College of Business**

Professor Suzanne Charles, City and Regional Planning

A NEW SUPER DEPARTMENT OF REAL ESTATE AT CORNELL

4 May 2022

Presentation to the Faculty Senate

Faculty Planning Committee

Sophie Oldfield, Professor and Chair, College of Architecture, Art, and Planning

Suzanne Lanyi Charles, Associate Professor, College of Architecture, Art, and Planning

Alex Susskind, Dean for Academic Affairs, SC Johnson College of Business

Alexei Tchisty, Associate Professor, SC Johnson College of Business

A NEW SUPER DEPARTMENT OF REAL ESTATE AT CORNELL

Outline

- **Introduction**
- **History and legacy of real estate at Cornell**
 - 30-year history
 - Faculty and real estate advisory boards establish foundations of real estate education and research
- **Current organization and the need for a super department**
 - 2012 gift from Richard Baker established the Baker Program in Real Estate (BPRE).
 - BPRE is governed by a memorandum of understanding (MOU) between The Nolan School and the College of Architecture, Art, and Planning.
 - Self-studies/external reviews were undertaken in 2009, 2012, 2021.

UNIVERSITY

"One Cornell"

AAP

Art

Architecture

CRP

B.S. URS
M.R.P.
M.S. RS
HPP
Ph.D.

Nolan

B.S. HA
M.M.H.
M.S.H.A.
Ph.D.
UG RE Minor

Johnson

Dyson

BPRE

Baker Program In Real Estate
(M.P.S. R.E.)

A NEW SUPER DEPARTMENT OF REAL ESTATE AT CORNELL

Outline

- **The vision for real estate at Cornell**
 - The world faces unprecedented climate, social, and economic crises.
 - Real estate professionals have a responsibility to address urgent environmental, social, and governance concerns.
 - Real estate is necessarily a multi-disciplinary endeavor.
 - Real estate practice requires engagement with the disciplines of design, planning, finance, asset management, policy, law and others.

A NEW SUPER DEPARTMENT OF REAL ESTATE AT CORNELL

Outline

- **Proposed organization of super department of real estate**
 - An integrative and collaborative vision that weaves together finance, development, and the built environment, drawing from the intellectual diversity of the two colleges.
 - Three guiding principles:
 - Maintain competitive strength of existing programs
 - Fortify the governance structure to super-department structure
 - Amplify programs with dedicated academic leadership and faculty, and an opportunity for funding support through a named endowment in addition to the existing Baker Program endowment and tuition revenue.

UNIVERSITY

"One Cornell"

AAP

SCJCB

Art

Architecture

CRP

B.S. URS
M.R.P.
M.S. RS
HPP
Ph.D.

Real Estate

BPRE
M.S.
Ph.D.

Nolan

B.S. HA
M.M.H.
M.S.H.A.
Ph.D.
UG RE Minor

Johnson

Dyson

Senate Discussion

Pending Resolution: Prospective Part-Time Bachelor's Degree Program for Non-Traditional Students

UFC sponsored amendment: Senator David Lee, University Faculty Committee;
Applied Economics and Management in the SC Johnson College of Business

Senator Richard Bensel, Government, **and Senator Risa Lieberwitz,** Industrial and
Labor Relations, **sponsored amendment**

Resolution presented in 20Apr22 Senate meeting

Whereas phrases are unchanged

Resolution

Whereas the prospective creation of a part-time bachelor's degree program is consistent with Cornell's legacy of, and historical commitment to, increasing access to higher education on behalf of "any person";

Whereas there are populations of prospective students that are underserved by institutions of higher education who might benefit from increased access;

Whereas three relevant Standing Committees of the Senate, Committee on Academic Programs and Policies, Educational Policy Committee, and the Committee on Academic Freedom and the Professional Status of the Faculty, studied the proposal and identified several important implementation issues that need resolution before the program can be implemented by the university administration;

UFC-sponsored: 27Apr22 and 3May22

Be it resolved that the Faculty Senate recommends ~~support~~ **approval**, in principle, of the concept of Cornell creating a part-time bachelor's degree program;

Be it further resolved that this recommendation **approval** is ~~conditional on~~ **subject to** satisfying a number of as yet unresolved implementation issues. These issues include maintenance of academic excellence and quality, the financial feasibility of the program, the appropriate mix of online and in-person instruction, faculty roles and labor, and addressing specific needs of prospective underrepresented groups noted in the proposal, among other matters;

Be it further resolved that the university administration and the Provost involve Cornell faculty in all stages of program planning **and** provide regular updates to the Faculty Senate ~~and present its explanations on the resolution of critical unresolved questions to the Senate for review;~~

Be it further resolved that **the Provost**, at the conclusion of the program planning process, ~~the Provost seek~~ **solicit** the approval ~~of from~~ the Faculty Senate **and explain how the implementation questions and problems raised by Faculty Senate committees were addressed** before commencement of the part-time bachelor's degree program.

Differences

Language UFC added from the Bensel and Lieberwitz proposed amendment

Senators Bensel and Lieberwitz sponsored: 2May22

~~*Be it resolved* that the Faculty Senate recommends support, in principle, of the concept of Cornell creating a part time bachelor's degree program;~~

Be it further resolved that **any Faculty Senate vote to approve, in principle or otherwise, Cornell's creation of a part-time Bachelor's degree program will be withheld until the Cornell administration addresses and solves the implementation questions and problems raised by the Faculty Senate committees, and presents its explanations to the Senate for review.**

These issues include maintenance of academic excellence and quality, the financial feasibility of the program, the appropriate mix of online and in-person instruction, faculty roles and labor, and addressing specific needs of prospective underrepresented groups noted in the proposal, among other matters;

~~*Be it further resolved* that the university administration and the Provost involve Cornell faculty in all stages of program planning **and** provide regular updates to the Faculty Senate and present its explanations on the resolution of critical unresolved questions to the Senate for review;~~

~~*Be it further resolved* that at the conclusion of the program planning process, the Provost seek **solicit** the approval of the Faculty Senate before commencement of the part time bachelor's degree program.~~

Resolution presented in 20Apr22 Senate meeting

Be it resolved that the Faculty Senate approves, in principle, the concept of Cornell creating a part-time Bachelor's degree program,

Be it further resolved that this approval is subject to satisfying a number of as yet unresolved implementation questions. These include maintenance of academic excellence and quality, the financial feasibility of the program, the appropriate mix of online and in-person instruction, faculty roles and labor, and addressing specific needs of prospective underrepresented groups noted in the proposal, among other matters;

Be it further resolved that the university administration and the Provost involve Cornell Faculty in all stages of program planning and provide regular updates to the Faculty Senate on the resolution of critical unresolved questions;

Be it further resolved that at the conclusion of the program planning process, the Provost seek the approval of the Faculty Senate before commencement of the part-time Bachelor's degree program.

**Pending Resolution:
Increasing the Transparency and Effectiveness
of Faculty Senate Proceedings**

FALL SEMESTER

~~Resolved, the University Faculty Committee (UFC) is asked to open its meetings to all Faculty Senators in which the UFC creates its recommendation for the agenda of the Faculty Senate;~~

Resolved, the UFC is asked to publish its recommendation for the agenda of the Faculty Senate on the morning of the Friday before the Faculty Senate meeting;

~~Resolved, the agenda must be formally approved by the Faculty Senate before the meeting begins, at which time amendments changing the agenda will be in order;~~

Resolved, the Nominations and Elections Committee shall nominate members of ad hoc committees, the Dean of Faculty shall submit such nominations to the Faculty Senate for approval, and the Faculty Senate can add, subtract, or substitute its own nominations for the list submitted by the Dean of Faculty.

~~—————~~ Strikeout of original language

New language

Original language

SPRING SEMESTER

Resolved, the Dean of Faculty shall publish the agenda of each Faculty Senate meeting no later than the morning of the Friday before the Faculty Senate meeting;

Resolved, at least one week before the Faculty Senate meeting agenda is published, the Dean of Faculty shall post on the Senate website and send to the Faculty Senate a draft agenda, seeking comments, suggestions, and proposed amendments regarding the content and time allocations in the draft agenda.

Resolved, the Dean of Faculty and the University Faculty Committee (UFC) shall each make a report at every Faculty Senate meeting, with sufficient time for questions, to fully inform the Senate of the content of the UFC's meetings and to provide updates about measures taken to implement resolutions adopted by the Faculty Senate.

Resolved, the Nominations and Elections Committee shall nominate members and chairs of ad hoc committees and the Dean of Faculty shall submit such nominations to the Faculty Senate for its approval or rejection.

Senate Discussion



CORNELL UNIVERSITY FACULTY SENATE

Adjournment

Reception
Following
in the foyer



#IAMYOURSENATOR