UMD I-Corps August 2020 Cohort
Course Syllabus

Faculty

<table>
<thead>
<tr>
<th>Instructors</th>
<th>Dan Kunitz, Edmund Pendleton, Kit Needham, Dean Chang</th>
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<tbody>
<tr>
<td>Mentors</td>
<td>Karl Ginter, David Powell, Piotr Kulczakowicz, Christina De Mur, Jolene Gurevich, Nikki Mehta, Greg Baker, Marc Steren, Ben Margolis</td>
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<td>Program Managers</td>
<td>David Steele, Bijan DaBell</td>
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Course Dates

| Class 0: Pre-class Intro Webinar | • Monday, August 10th, 12-1pm  
|                                 | • Zoom (link will be provided prior to class) |
| Class 1: Opening Workshop       | • Monday, August 17th, 8:30am-12:30pm  
|                                 | • Zoom (link will be provided prior to class) |
| Office Hours with Instructors & Mentor Meetings Required | • Week of August 17th  
|                                                        | • (1 on 1 with Instructors scheduled for 30 min, sign-up instructions will be distributed prior to class)  
|                                                        | • Mentor meetings also scheduled individually (You will be assigned a mentor) |
| Class 2: Midpoint               | • Monday, August 24th, 8:30am-12:30pm  
|                                 | • Zoom (link will be provided prior to class) |
| Office hours: Optional          | • Week of August 24th  
|                                 | • (1 on 1 with Instructors scheduled for 30 min, sign-up instructions will be distributed prior to class) |
| Class 3: Final Presentations    | • Monday, August 31st, 8:30am-2:30pm  
|                                 | • Zoom (Instructor Zoom Rooms)  
|                                 | • (1 on 1 with Instructors scheduled for 45 mins, sign-up instructions will be distributed prior to class) |
I-Corps Course Management Software

**Zoom:** Throughout the course we will be using Zoom for our Class sessions. We may be using some Zoom features to help facilitate cohort interactions. These are all fairly easy to use and will potentially include Whiteboards, Polling, and Breakout Rooms. If you are not familiar with these features please review these resources in advance:

- Whiteboards: [https://support.zoom.us/hc/en-us/articles/115005706806](https://support.zoom.us/hc/en-us/articles/115005706806)
- Polling: [https://support.zoom.us/hc/en-us/articles/213756303-Polling-for-meetings](https://support.zoom.us/hc/en-us/articles/213756303-Polling-for-meetings)
- Breakout Rooms: [https://support.zoom.us/hc/en-us/articles/115005769646-Participating-in-breakout-rooms](https://support.zoom.us/hc/en-us/articles/115005769646-Participating-in-breakout-rooms)

**Security:** Please do not share the links for our meetings beyond your teammates that are participating in our I-Corps program. If you wish to include an additional observer or participant in our meetings, ask our Teaching team first. The links for the meeting will include an automatic password embedded in the link.

**Google Drive:** We will be using Google Drive to share documents/presentations between Instructors and Teams

**I-Corps Course Description**

Customer Discovery is an iterative process of physically (and now virtually) getting out of the building to interview potential customers and stakeholders to understand their problems and pain points in the market and in society. These interviews, or experiments, lead to real-world learnings and insights that validate or invalidate key components of the business model, often leading to pivots.

This course provides teams with real-world, hands-on learning experience with customer discovery and successfully transferring knowledge into products and processes that benefit society. Teams will spend time talking to and learning from customers, partners and competitors, and learning how to deal with the chaos and uncertainty of commercializing innovations and creating ventures.

Teams will be spending a significant amount of time “outside the building” talking to customers and testing their hypotheses. Class time will be spent on the teams’ key learnings from talking to customers, not what they already knew coming into the course. Teams are expected to conduct a total of 20 interviews by the end of the course.

At the opening session we will explain how to conduct the interviews and more about the expectations. **We suggest teams set up potential customer discovery interviews as soon as possible, but do NOT conduct interviews prior to the course opening. Teams should be researching leads and scheduling appointments, but those interviews will all happen AFTER the opening session.**
I-Corps Course Culture
The instructors have limited time and they push, challenge, and question teams in the hope that they will quickly learn. Instructors are direct, open, and tough – just like the real world. They hope that teams can recognize that their comments aren’t personal, but part of the process. Instructors also expect the teams to question them, challenge their point of view if they disagree, and engage in a real dialog with the teaching team. This approach may seem harsh or abrupt, but it is all part of our wanting the teams to learn to challenge themselves quickly and objectively, and to appreciate that as entrepreneurs, they need to learn and evolve faster than ever imagined possible.

Pre-Class Assignment
1. As discussed above, the opening sessions will explain how to conduct the 20 interviews that constitute the majority of the work done in this class. Teams should set up potential customer discovery interviews as soon as possible, but do NOT conduct interviews prior to the course opening. Brainstorm and research who you think your most promising potential customers are, and the key stakeholders in your customer ecosystem. Schedule appointments to meet them during the weeks of August 17 and August 24.
2. This short introductory class does not require any reading, but teams will benefit from reading the suggested material in the Additional Resources section, and watching the videos on the final two pages of this syllabus.

Program Schedule
Pre-Class 0, Course Preparation
Date: Friday, August 7th- before Class 0
Location: Virtual, self-paced

<table>
<thead>
<tr>
<th>Detailed Schedule</th>
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<tbody>
<tr>
<td>Pre-Program Preparation</td>
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<tr>
<td>● Begin compiling a list of potential customers to interview once the course begins</td>
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<tr>
<td>Recorded Lectures (Videos 1-2):</td>
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<tr>
<td>● Watch intro to I-Corps</td>
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<tr>
<td>● Watch Interview Preparation</td>
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Class 0, Webinar

Date: Monday, August 10th, 12pm-1pm
Location: Online via Zoom (An invite will be sent to your inbox)

Detailed Schedule

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<th>Attendance</th>
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<tr>
<td>Instructor Introductions</td>
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<tr>
<td>Discussion of Assignments and Expectations</td>
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<tr>
<td>Q&amp;A</td>
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Pre- Class 1

Date: Friday, August 14th- before Class 1
Location: Virtual, self-paced

Detailed Schedule

Recorded Lectures (Videos 3-10):
- Watch Business Model Overview
- Watch Customers
- Watch Customer Jobs
- Watch Customer Needs
- Watch Beachhead Market
- Watch Value Propositions
- Watch Hypothesis Development
- Watch Customer Discovery Best Practices Pre-Program Preparation

Continue compiling a list of potential customers to interview once the course begins

Class 1, Course Opening Workshop

Date: Monday, August 17th, 8:30am-12:30pm
Location: Zoom (An invite will be sent to your inbox)

Detailed Schedule

<p>| Attendance |</p>
<table>
<thead>
<tr>
<th>Team Introductions</th>
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<tbody>
<tr>
<td>Discussion of business models, customers, &amp; jobs</td>
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<tr>
<td>Discussion of hypothesis generation and testing</td>
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<tr>
<td>Discussion of Customer Discovery best practices</td>
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<tr>
<td>Interview Prep</td>
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<tr>
<td>● Turning hypotheses into interview questions</td>
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<tr>
<td>Interview exercise</td>
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<tr>
<td>Review of assignments and expectations</td>
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<tr>
<td>● Sign up for 1 on 1 Instructor Office hours, coordinate interview observation</td>
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<tr>
<td>● Schedule a Meeting with your assigned Mentor</td>
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<tr>
<td>Open Q&amp;A</td>
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### Office Hours (REQUIRED) - Teams

**Date:** Between Monday, August 17th and Thursday, August 20th  
**Location:** Virtual (Zoom) or conference call. Instructions for sign up will be sent via email.

### Mentor Meetings (REQUIRED) - Teams

**Date:** Between Monday, August 17th and Thursday, August 20th  
**Location:** Virtual (Zoom) or conference call. You will be assigned a Mentor. Instructions for scheduling will be sent via email.

### Class 2, Midpoint

**Date:** Monday, August 24th, 8:30am-12:30pm  
**Location:** Zoom (An invite will be sent to your inbox)

### Detailed Schedule

Team Presentations (in webinar Breakout rooms)  
10-minute team presentations using the following template:  
● Cover Slide, including:
○ (Team member names, Team name, Team number)
○ Business thesis (Who is your customer, what problem do they have, what is your solution?)
○ Total # of customer interviews completed

● Slide 2 – n: What have you learned through your customer discovery? Focus on customer segments and value propositions. Include answers to the following points:
  ○ Hypothesis: Here’s What We Thought
  ○ Experiments: So, Here’s What We Did
  ○ Results: So, Here’s What We Found
  ○ Iterate: So, Here’s What We Are Going to Do Next

● Final Slide: Current business model canvas with any changes marked

Customer Segment Workshop
  ● Break into groups of 4

Discussion of Final Assignments and Q&A

Office Hours (OPTIONAL) - Teams

Date: Between Monday, August 24th and Thursday, August 27th
Location: Virtual (Zoom) or conference call
Instructions for sign-up will be sent via email

Pre-Class 3

Date: Friday, August 28th - before Class 3
Location: Virtual, self-paced

Detailed Schedule

Recorded Lectures (Videos 11-12):
  ● Watch Next Steps (parts 1 + 2)

Class 3, Final Presentations (individually scheduled)

Date: Monday, August 31st
Individually scheduled for 45 minutes each
Location: Virtual, instructions for sign-up will be sent via email
Teaching Team

Instructors

Dan Kunitz
UMD Venture Strategy and Development Director
DC I-Corps Node Executive Director
NSF I-Corps Instructor
dkunitz@umd.edu

Dan Kunitz is a media and technology executive and entrepreneur who has been involved in the creation and management of several successful web and media start-ups. He recently joined the University of Maryland as the Director of Venture Strategy and Development at the Maryland Technology Enterprise Institute, and as Executive Director of the DC I-Corps Node. Dan is also an angel investor and a NextGen Venture Partner.

Before joining UMD in 2019, Dan was Director of I-Corps programs at The George Washington University. He also served as Chairman of the Washington DC Economic Partnership's AccelerateDC program, and as a Senior Advisor at Venture Well to NSF’s National Innovation Network. Dan is a nationally-certified instructor in NSF’s I-Corps Teams program. He has championed, instructed, and/or managed many international I-Corps and lean startup initiatives in developed and developing countries all around the world.

Prior to joining the DC I-Corps team at GW, Dan was an entrepreneur, founder, and executive for several startups in the web, new media, and education sectors. As Co-Founder and COO of Irides, LLC, a Virginia-based managed services provider, Dan oversaw all aspects of the company’s strategy and operations, and negotiated six acquisitions. Dan was on the founding team of Politico, a Virginia-based new media venture covering politics, Capitol Hill, and lobbying. As Associate Publisher and Managing Editor of politico.com, Dan was responsible for all aspects of the online strategy, built and managed a team of developers, designers, and content producers, and negotiated numerous strategic partnerships. Politico grew to over 100 employees and had 5 million monthly unique visitors in its first year. Dan was involved in two other new media start-ups in the Washington region: Local Point TV, an innovative short-form entertainment-based digital spectrum sub-channel, and NewsiT, a mobile platform for crowdsourced news. Dan’s career also includes two education ventures. At MBA Center, Dan directed all aspects of the company’s communication, marketing, media, and editorial activities for Europe’s largest test prep provider with 12 locations throughout Europe, North Africa, and the Middle East. Dan subsequently co-founded Professional Prime, a strategic advisory and consulting company headquartered in Paris and London, with offices throughout Europe and education clients worldwide.
Dan has a BA from Wesleyan University, and an MBA in International Business from Ecole des Ponts.

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**Edmund Pendleton**
Director, DC I-Corps Program
NSF I-Corps Instructor
edmund@umd.edu

Entrepreneur, angel investor, and mentor for technology start-up companies. Founded or co-founded several businesses, primarily in high-tech markets, with successful exits. Currently active in several Washington, DC area angel investment and entrepreneurial groups.

Primary business experience and interests include technology innovation, product development and management, sales and marketing, and entrepreneurship. Also extensive experience in technology consulting, manufacturing, architecture / engineering / construction – and conducting real-world due diligence of technology start-up companies.

Acting as an advisor to several area tech start-ups, and an active volunteer for Arlington, VA youth sports and public schools.

- Founding member of FounderCorps
- Member of Capital Area Network - Angel Investors
- Guest lecturer at several local universities
- Mentor at The Founder Institute
- Coach/Mentor, Kauffman Foundation FastTrac program
- George Mason University Venture Mentor
- Chairman, Health & Physical Education Sub-Committee, Arlington Public Schools
- Inventor – multiple patents and trademarks
Dean Chang  
Associate Vice President, Innovation and Entrepreneurship, University of Maryland  
NSF I-Corps Instructor  
deanc@umd.edu

My passion is cultivating the innovator and entrepreneurial mindset inside of students, researchers, and professionals through design thinking, lean startup, and team-based experiential learning. I am the University of Maryland’s (UMD) founding Associate VP for Innovation & Entrepreneurship for the Academy for Innovation & Entrepreneurship (AIE), reporting to the President and to the Provost and tasked with engaging all 37,000 of our students in all 12 colleges and schools in innovation. Prior to AIE, I oversaw the School of Engineering’s technology startup venture programs. I am also a lead PI and instructor in the National Science Foundation’s (NSF) I-Corps Node program and a lead instructor in the U.S. Department of Health and Human Services (HHS) IDEA Lab Ignite innovation workshop. I develop and teach innovation and entrepreneurship curriculum for high school and college students, university researchers, and government agencies.

Prior to UMD, I was fortunate to spend 15 years discovering and developing my own entrepreneurial mindset in Silicon Valley. I served dual roles as the Chief Technology Officer and Vice President, Gaming Business of Immersion Corporation. I joined Immersion as employee #4 and helped transform the venture-backed, Stanford University robotics lab spinout into a publicly traded (NASDAQ: IMMR), world-leading licensor of haptics technology embedded in hundreds of millions of products from companies like Sony, Microsoft, Apple, BMW, Samsung, CAE, LG, Logitech, and Electronic Arts. I was part of the initial development team that created the core haptic technology found in most of those products and part of the executive team that took the company public.

I hold over 40 U.S. and international patents and am a Pi Tau Sigma graduate from MIT, an engineering AFOSR Fellow and PhD from Stanford, and a Palmer Scholar MBA from Wharton. Washingtonian Magazine Top 100 Tech Titan in 2015.

I enjoy learning from others who share my passion.
Kit Needham
Director
Project Olympus
Swartz Center for Entrepreneurship
Carnegie Mellon University

Email: kit@cs.cmu.edu

Kit is Director and Executive-in-Residence at Project Olympus where she provides start-up advice, business strategy planning, connections to industry experts, advisors and the business community to student, faculty and staff startups. She is a Program Leader for the National Science Foundation’s iCorps programs and an Amazon Alexa Innovation Fellow.

She is a member of BlueTree Allied Angels and serves on the Screening Committee. Kit is an Advisory Board member of Chatham University's Center for Women's Entrepreneurship, and a Board member of the Pittsburgh Entrepreneurs Forum.

She was a Senior Vice President at the Allegheny Conference on Community Development working on education and economic development initiatives. Prior to that, she was Chief Operating Officer of Mellon Lab which was responsible for creating revenue-producing businesses for Mellon Bank. She also provides consulting services to promote economic growth to Chambers of Commerce, individual entrepreneurs and non-profit organizations.

Kit is a Board member of the Women's Center & Shelter for Domestic Violence, and an Advisory Board member for Standing Firm. She is a graduate of Leadership Pittsburgh XIX.

Staff

David Steele
Program Manager, UMD I-Corps
dsteele1@umd.edu

David is the Program Manager for UMD I-Corps. Previously, he served as a Teaching Assistant for BMGT461 Entrepreneurship in the UMD Smith School advising student entrepreneurs on how to utilize the BMC and grow their start-ups.

He developed his own major in Innovation & Entrepreneurship and graduated with BS in August 2018. Pulling together different disciplines and coursework through UMD’s IVSP (Individual Studies program), David also
completed a capstone project developing a business model for a new restaurant concept and examining its viability.

While on campus he was a member of the Hinman CEOs program on campus which teaches technology entrepreneurship. He participated in the Innovo Scholars program, through which he consulted with two UMD professors on how to improve the educational impact of BMGT495- Management, a required Smith Business school course. His recommendations developed through the program were later implemented into the course. He also is a food tour guide in Georgetown, DC and has written numerous articles on how to get the most out of credit cards.

Bijan DaBell
Coordinator to the University of Maryland's Chief Innovation Officer
Program Manager
bdabell@umd.edu

In his role Coordinator to Julie Lenzer, Bijan supports UMD’s innovation, entrepreneurship, and technology commercialization enterprise. Bijan also assists the Mixed/Augmented/Virtual Reality Innovation Center (MAVRIC), the Maryland Small Business Development Center (SBDC) and the TechPort incubator in St. Mary’s County, MD. Since 2018, Bijan has led the planning and implementation of the university’s annual premiere celebration of innovation on campus, Innovate Maryland. He received his B.A. degree in History from University of California, Los Angeles and an M.A. in Social Sciences from the University of Chicago.

Additional Resources


2) These short videos from Steve Blank provide helpful tips and examples for preparing for your customer interviews:
   - Pre-Planning Pt. 1 (4:55)
   - Interviews Pt. 1 (5:40)
   - Interviews Pt. 2 (3:49)
   - Asking the Right Question (2:37)
   - Assuming you know what the customer wants (1:56)
   - Understanding the Problem (the right way) (3:22)
   - Customers Lie (2:37)
   - The Distracted Customer (3:12)
   - Engaging the Customer (3:37)
   - Customer Empathy (2:25)
- **The User, the Buyer & the Saboteur** (2:17)
- **Death by Demo 1** (2:18)
- **Death by Demo 2** (1:45)

3) For a more detailed explanation of Customer Development and the Lean Startup, here are some short videos of Steve Blank from the Kaufmann Founders School.

4) **Textbooks**

   **Value Proposition Design**
   Alexander Osterwalder, Yves Pigneur, Greg Pernarda & Alan Smith

   **Talking to Humans**
   Giff Constable

   **Business Model Generation – pages 14-51**
   Alexander Osterwalder & Yves Pigneur

   **The Startup Owner’s Manual – pages 195-199**
   Steve Blank & Bob Dorf

   **12 Tips for Early Customer Development Interviews**
   Giff Constable

5) Register for the free Udacity online course “How to Build a Startup” at [https://www.udacity.com/course/ep175](https://www.udacity.com/course/ep175) and watch the following lectures:
● Lesson 1: What we Now Know
● Lesson 1.5A: Business Models
● Lesson 1.5B: Customer Development
● Lesson 2: Value Proposition
● Lesson 3: Customer Segments