University of Maryland August 2021 I-Corps Cohort Course Syllabus

Course Requirements

- At least one member of each team attends all Class Sessions, and the required Office Hours
- Time Commitment: 2-3 hours of course work and approximately 10 hours/week outside of class, primarily for customer discovery, for the main two weeks August 13th-August 27th
- Ability to actively participate in a Virtual meeting (Zoom), and ability to access Canvas Learning Management System (directions below) for all other Class resources

*Anyone with questions about the course should contact the UMD I-Corps Program Manager at dsteele1@umd.edu or the teaching team at i-corps@umd.edu*

Faculty

<table>
<thead>
<tr>
<th>Instructors</th>
<th>Dan Kunitz, Edmund Pendleton, Elizabeth Good Mazhari, Mike Abbott, Julie Collins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-Instructors</td>
<td>Alex Wang, Ed O’Brien, Ricky Venters, Qyana Stewart, Lisa Garcia, Henry Mortimer, Scott Suhy, Liz Striegel, Ian Jobe, Gale Bassette, Kit Needham</td>
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<tr>
<td>Mentors</td>
<td>Piotr Kulczakowicz, Deborah Hemingway, Karl Ginter, Ben Margolis, Evan Shubin, Moe Abutaleb, Vivek Kalihari, David Powell, David Cross, Chuck Montague</td>
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<tr>
<td>Program Managers</td>
<td>David Steele, Bijan Dabell</td>
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Course Dates

| Class 0: Pre-class Intro Webinar | ● Friday, August 6th, 12pm-1pm  
| | ● Zoom (link will be provided prior to class) |
| Class 1: Opening Workshop | ● Friday, August 13th, 8:30am-12:30pm  
| | ● Zoom (link will be provided prior to class) |
| Office Hours with Instructors (Required) | ● Week of August 16th  
| | ● (1 on 1 with Instructors scheduled for 30 min, sign-up instructions will be distributed prior to class) |
Class 2: Midpoint
- Friday, August 20th, 8:30am-12:30pm
- Zoom (link will be provided prior to class)

Office hours with Instructors or Mentors (Required)
- Week of August 23rd
- (1 on 1; scheduled for 30 min, sign-up instructions will be distributed prior to class)

Class 3: Lessons Learned & What’s Next
- Friday, August 27th, 8:30am-12:30pm
- Zoom (link will be provided prior to class)

I-Corps Short Course Technology Requirements

**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, Breakout Rooms, and Renaming yourself. 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)
- Renaming + Other Controls (Click on your browser/computer type) [https://support.zoom.us/hc/en-us/articles/200941109-Attendee-controls-in-a-meeting](https://support.zoom.us/hc/en-us/articles/200941109-Attendee-controls-in-a-meeting)

**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 observers or participants in our meetings, ask our Teaching team first. The links for the meeting will include an automatic password embedded in the link.*

When joining a meeting, you will be placed in a waiting room first, please wait for the Host to let you in. Once you have joined please rename yourself to be (Team #, “-“, First Name)

**Canvas-ELMS:** Canvas is Learning Management software offered by UMD. All course resources will be housed in Canvas and you will need to sign up for Canvas in order to have access to all of the course content. The course Schedule, Assignments, and In-Class materials will all be shared within Canvas-ELMS. Please see below on how to Enroll in the I-Corps course via Open Learning:

**How to Enroll in an Open Learning Non-Credit Course**
For UMD Participants:
I. Go to the course page: [Introduction to I-Corps at UMD](https://www.openlearningtoolkit.com/courses/introduction-to-i-corps-at-umd) and log in with your UMD credentials
II. Click the blue "Enroll" button and then follow the instruction “V.” below:
For Non-UMD Participants

III. **Non-UMD Participants** must first create an associate account and be signed in before you are able to enroll:

1. Follow the link on the enrollment page, or here: to [Create an Associate Account](#).
2. Complete the Associate Account Registration information, then click the "Submit" button.
3. On the next page, you will confirm your login ID. Change the Drop-down to "Yes" and then click "Accept."
   a. After you click "Accept," you will receive an email stating that you have created an Associate Account:
4. Click the link in the email to activate your account and to create a password
5. Create a password* according to the Password Requirements listed on the right side of the page, then click Update Password.
6. Log into [elms.umd.edu](#) using your new credentials and accept the terms of use to complete account creation.

   *NOTE: Passwords are valid for up to 180 days. Account holders will be notified via email to reset and update their password in order to prevent deletion of the account. A password reset generates a link emailed to the account that remains valid for 10 minutes. Accounts with expired passwords or with no activity after creation will be deleted and removed from the system after 180 days.

IV. Return to the [Introduction to I-Corps at UMD](#) and again click the blue "Enroll" button:

7. On the following page, click "Sign in Here." Login using your email and the password you created for the associate account.
8. Click the blue "Enroll" button.

V. YOU ARE NOW ENROLLED IN THE COURSE! You will receive an e-mail confirmation of your enrollment. To access your course in ELMS, click on the link in the email. If you are new to navigating the ELMS course space? For a helpful introduction, check out the [Orientation to ELMS for Students](#).

**Google Drive:** Google drive links and documents will be embedded into Canvas. We will be using Google Drive to utilize shared worksheets and will include Google Slides, Docs, and Sheets.

**Google Table/Google Sheets:** Each team must utilize either Google Tables or Google Sheets to keep track of your Customer discovery interviews that you will be conducting throughout the course.

Google Table is a demo product offered by Google and allows you to take a traditional spreadsheet and automate/curate it to connect more deeply with Customer Discovery Data but
necessitates you have a validated Gmail account. Google sheets is a simpler spreadsheet and currently does not have the requirement that you must use a validated Gmail account to use it.

Please review this instructions document to get familiar with either Google Tables or Google Sheets. Be sure to make a copy of the Example Google Table/Sheet before editing it to suit your team’s needs.

Each Team must share their Google Table or Sheet with the Teaching team and may also share amongst their teammates and mentors for more collaboration.

**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.
Free Non-Credit Course
Non-credit courses and Continuing Education Units (CEUs) do not post to the University of Maryland transcript and do not count towards a student’s academic record. Neither a grade nor credit is earned. Students do not receive a University ID card and will not be granted access to University facilities such as recreation, transportation, and campus events. Non-credit students may access UMD Libraries as Visitors; see https://www.lib.umd.edu/about/visitors.

Program Schedule (Check Canvas and Emails for additional details):

Pre-Class 0: Course Preparation
Date: Upon receipt of syllabus (Due August 9th)
Location: Virtual, self-paced

<table>
<thead>
<tr>
<th>Pre-Class Assignments</th>
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<tr>
<td>Begin compiling a List 20+ new target customers for potential customer discovery interviews in your customer discovery Tracking Google Table/Sheet.</td>
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<tr>
<th>Recorded Lectures (Videos 1-4):</th>
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<tbody>
<tr>
<td>● Watch Introduction to I-Corps</td>
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<td>● Watch Customers</td>
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<td>● Watch Business Models</td>
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<tr>
<td>● Watch Interview Prep</td>
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Fill out Pre-Course Survey

As discussed above, the opening sessions will explain how to conduct the at least 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 16 and August 23.**

Class 0: Webinar
Date: Friday, August 6th, 12:00pm-1:00pm
Location: Online via Zoom (An invite will be sent to your inbox)

Detailed Schedule
Instructor Introductions

Introduction to Customer Discovery

Cold Call & Email Workshop

Discussion of Assignments and Expectations

Logistics/Q&A

Pre- Class 1

Date: Week of Monday, August 9th- before Class 1
Location: Virtual, self-paced

Detailed Schedule

Recorded Lecture (Videos 5):
  ● Watch Customer Discovery

Continue compiling a list of potential customers to interview once the course begins and start scheduling interviews following Class 1

Class 1: Course Opening Workshop

Date: Friday, August 13th, 8:30am-12:30pm
Location: Zoom (An invite will be sent to your inbox)

Detailed Schedule

Team Introductions

Evidence-based entrepreneurship

Interview Prep
  ● Turning hypotheses into interview questions

Customer Discovery Workshops

Review of assignments and expectations
  ● Sign up for 1 on 1 Instructor Office hours, coordinate interview observation
Office Hours (REQUIRED) - Teams

Date: Between Friday, August 13th and Thursday, August 19th
Location: Virtual (Zoom) or conference call.
Instructions for sign up will be sent via email.

Pre-Class 2

Date: Between Friday, August 13th and Thursday, August 19th
Location: Virtual, self-paced

<table>
<thead>
<tr>
<th>Detailed Schedule</th>
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<tbody>
<tr>
<td>Conduct Interviews! Record them on Shared Interview Tracking sheet</td>
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<tr>
<td>Compile your Mid-point Presentations (See Details below)</td>
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Class 2: Midpoint

Date: Friday, August 20th, 8:30am-12:30pm
Location: Zoom (An invite will be sent to your inbox)

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<th>Detailed Schedule</th>
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<tbody>
<tr>
<td>Team Presentations (in Zoom Breakout rooms)</td>
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<tr>
<td>12-15-minute team presentations using the designated team slides in the Shared Class Google Slides</td>
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<tr>
<td>Hypothesis Development Discussion and Exercise</td>
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<tr>
<td>Value Proposition Workshop</td>
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<tr>
<td>Discussion of Final Assignments and Q&amp;A</td>
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Office Hours - Teams

Date: Between Friday, August 20th and Thursday, August 26th
Location: Virtual (Zoom) or conference call
Instructions for sign-up will be sent via email
Pre- Class 3

Date: Between Friday, August 20th - before Class 3
Location: Virtual, self-paced

Detailed Schedule

Continue Customer Discovery Interviews

Prepare for Final Presentation (Update your Team Slides)

Class 3: Lessons Learned & What’s Next

Date: Friday, August 27th (8:30am-12:30pm)
Location: Virtual, instructions for presentation sign-up will be sent via email

Detailed Schedule

Final Team Presentations (in Zoom Breakout rooms)
  12-15-minute team presentations using the designated team slides in the Shared Class Google Slides

Next Steps Discussion
  • National I-Corps, SBIR, Other Programs and Resources
  • Business Model discussion
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.

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
Elizabeth Goode Mazhari  
TEDCO Investment and DEI Advisor (Consultant)  
egood.mazhari@gmail.com

Elizabeth brings more than 25 years of academic, government, and private sector experience in product development, technology commercialization and venture management experience to the team. Prior to joining TEDCO, she served as President of Transition Health Ventures, a consulting firm specializing in serving the needs of the innovation community and the healthcare and life science startup companies within it. Elizabeth also spent more than 8 years in academic venturing roles JHU and UMB. Additionally, Elizabeth previously served as Managing Director of the MVF (2004-2006) in addition to progressively senior roles with the Fund between 2000-2004. She started her career in San Diego in venture-backed medtech startups in product development roles after completing her Masters in Bioengineering from UC San Diego, and BSE from Duke University and Biomedical and Electrical Engineering.

Mike Abbot  
Innovation & Strategy Consultant, Speaker, Business Coach  
mike@cambriandev.com

Mike Abbott is an investor, innovation and business strategy consultant, product developer, engineer, and speaker. Mike has worked with more than 2500 technology development teams ranging from Fortune 500 to startup companies, SBIR awardees to main street businesses, and government agencies to non-profits to apply evidence-based decision making around NPD, product strategy, and market discovery. Improving innovation is about repeatable processes that inspire corporate culture to use data-driven tools to discover and monetize under-served needs. By doing so, lower-risk higher-yield business models are created around growth strategies for early stage technologies, processes, services, and missions. It's easy to talk to people in your market, and you're sure to learn a lot. The trick is in how you translate what you hear into real, actionable information.

Mike is a technology entrepreneur himself, having spent twenty five years in product development across a wide spectrum of industries. He has been an equity partner in 10 start-up
companies and served as an executive consultant in innovation processes, NPD, business model development, and tech transfer. From consumer to defense, medical, power, oil and gas, and heavy manufacturing industries, Mike has seen it.

Mr. Abbott holds both a BS and MS in Mechanical Engineering from Virginia Tech, is a licensed Professional Engineer in the state of Virginia, and holds a PMP certification with PMI.

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Julie Collins has a diverse background in research, technology, and non-dilutive funding. Currently she focuses her time providing consulting services for entrepreneurs and startups using the Lean Start-Up methodology. She has been an instructor for the NSF Innovation Corps program since 2012, is an instructor the NIH SBIR I-Corps program, and has developed Lean Startup-based training programs for public health at the Centers for Disease Control and Prevention. Julie also has extensive experience in non-dilutive funding for early stage and growth startups.

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David has been serving as the Program Manager for UMD I-Corps since February 2020. He has worked for multiple start-ups and has some experience as a restaurant consultant.

He created his own major at the University of Maryland in Innovation & Entrepreneurship and graduated with a Bachelor’s of Science in August 2018. Directly following school, he interned for two DC Startups, one in the food incubator space, and the other in software application design. Previously, he served as a Teaching Assistant for BMGT461- Entrepreneurship, in the UMD Smith School, advising student entrepreneurs on how to utilize the BMC (Business Model Canvas) and grow their start-ups.
While on campus he was a member of the Hinman CEOs Living Learning program which teaches technology entrepreneurship to a select group of students. 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 financially 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

This short introductory class does not require any reading, but teams will benefit from reading these 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
   ● A free download of the first chapter of the book is available at: [https://strategyzer.com/value-proposition-design?_ga=1.152090042.2059273423.1389715841](https://strategyzer.com/value-proposition-design?_ga=1.152090042.2059273423.1389715841)

*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

6) Additional Video Content from other I-Corps programs:

University of Minnesota
● Value Proposition Design: [https://mincorps.umn.edu/resources/value-proposition-design](https://mincorps.umn.edu/resources/value-proposition-design)
● Customer Discovery and Market Assessment: [https://mincorps.umn.edu/resources/customer-discovery-market-assessment](https://mincorps.umn.edu/resources/customer-discovery-market-assessment)

MIT
● Using LinkedIn to generate Leads: [https://www.youtube.com/watch?v=WEcIGoQq2Xs](https://www.youtube.com/watch?v=WEcIGoQq2Xs)