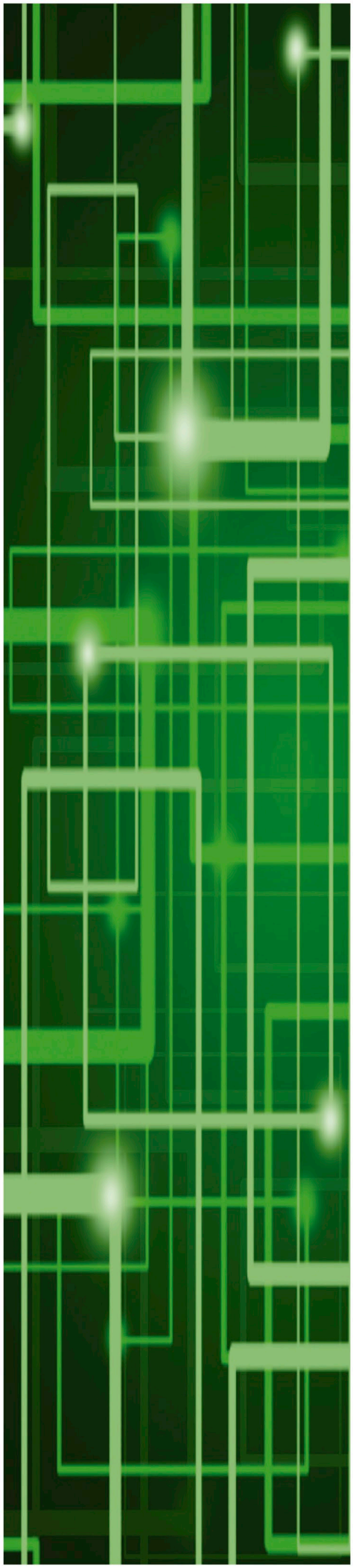

FAPESP
SÃO PAULO RESEARCH FOUNDATION

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

FAPESP-PIPE-High-Tech

Entrepreneurial Training Program

April/May, 2016

PIPE (Pesquisa Inovativa em Pequenas Empresas):
Innovative Research in Small Businesses

Inovação Tecnológica
PIPE

GW Office of Innovation & Entrepreneurship

The PIPE-High-Tech Entrepreneurial Training

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The **PIPE High-Tech Entrepreneurial Training,** offered by FAPESP in collaboration with the George Washington University, aims to assist companies funded through FAPESP's **Innovative Research in Small Businesses** program (PIPE in the Portuguese acronym) to develop a robust business model. The goal is to promote sustainable commercial development of the innovative products and services originated from FAPESP PIPE's research projects, generating significant business results. The training methodology is based on Steve Blank's Customer Development and Osterwalder and Pigneur's Business Model Canvas applied to high-tech innovation, similarly to the I-Corps program of the US National Science Foundation.

The São Paulo Research Foundation, FAPESP, has been funding small business research since 1997. The PIPE program focuses on **Innovative Research in Small Businesses**, targeting from startups to medium companies with less than 250 employees. Similarly to the NSF SBIR (Small Business Innovation Research) program, FAPESP's PIPE is divided in two phases. Phase 1 supports proof-of-concept or feasibility assessments, with a duration of up to 9 months. Phase 2 supports the development of the research required to develop the process or product, with a duration of up to 24 months. More than 1,500 PIPE grants have been awarded and since 2013 and FAPESP has been awarding approximately 3 grants per week, with a steady growth in the yearly number of awardees.

From the 43 small companies that responded to FAPESP's announcement of opportunity for this training, 21 teams were selected based on the quality of their proposals and the benefits they could obtain from participating. Each team is composed of three members. Two of them are nominated by the small company: the Principal Investigator and the entrepreneurial lead person for the company. The third member, the Mentor, is assigned by FAPESP from a pool of highly experienced, successful high-tech executives in the State of São Paulo, Brazil.

The training is organized in 4 phases. In Phase 1, the companies prepare their initial business canvas. In Phase 2, the 21 teams will work at FAPESP with the George Washington instructors during three days and learn how to interview customers and incorporate their feedback into their businesses. In Phase 3, the teams will conduct dozens of customer interviews in a structured way, adapting their business model as they progress, and have online classes and videoconference sessions with George Washington instructors for five weeks. In Phase 4, the teams will meet again at FAPESP in a live session for their final oral presentations.

The training program is based on the Customer Discovery methodology, which is an iterative process of getting out of the office/lab, going to the market to interview potential customers, partners, and competitors, to understand their needs, problems, and difficulties. After each group of interviews, the team evaluates whether the new understanding of the customer needs validates or invalidates the components of its business model. When a team detects that its hypothesis is not valid, they modify the existing business model. This iterative process continues until the team achieves a match between the product/service being offered and the needs of the market. This correspondence is called *Product x Market fit.*

The program will not only help the 21 small companies in enhancing their business capabilities, but also develop, within the State of São Paulo, the expertise on how to apply modern startup engineering methodologies for the development of prosperous high-tech companies.

The São Paulo Research Foundation

FAPESP is a public foundation, funded by the taxpayer in the State of São Paulo, with the mission to support research projects in higher education and research institutions, in all fields of knowledge.

São Paulo has a population of 44 million and generates 32% of Brazil's GNP. Under the state Constitution 1% of all state taxes are appropriated to fund FAPESP. The stability of the funding and the autonomy of the foundation allow for an efficient management of the resources that has had a sizable impact: while São Paulo has 22% of the Brazilian population and 30% of the scientists with a doctorate in the country, the state responds for 45% of the country's scientific articles published in international journals.

The effectiveness of research carried out in São Paulo is the combined result of several factors that include the quality of the state's universities and institutes, the productivity of its researchers, high rates of participation by private, São Paulo-based companies that function within the state's R&D outlays, São Paulo's outstanding infrastructure, and the existence of FAPESP, a well-designed state research-sponsoring agency governed, maintained by its directors with excellence and with autonomy over the past half century.

Within this context, in 2015 FAPESP applied 629 million in $ purchasing power parity (PPP) in scholarships and grants.

In accordance with the Foundation's funding objectives, 40% of expenditure was earmarked for advancing knowledge, 8% was dedicated to supporting research infrastructure and 52% was allocated to supporting application-driven research.

FAPESP works in close contact with the scientific community: all proposals are peer reviewed with the help of panels composed of active researchers from the specific area. Many times scientists in São Paulo submit proposals for programs to the foundation which are carefully analyzed and, if deemed strong in academic terms, are shaped by the foundation into research programs that will constitute a set of related research projects in a given area.

Since FAPESP's mandate is to foster research and scientific and technological development in the state, ideas for programs that couple world class research with contributions that will impact social problems are welcome.

Innovative Research in Small Businesses

Aims and Objectives

FAPESP's Innovative Research in Small Businesses Program (PIPE), established in 1997, aims to support the development of innovative research projects carried out in small businesses, i.e., companies with up to 250 employees, in the State of São Paulo. Centered on significant scientific and technological problems that have a high potential for commercial or social return, the projects are carried out by researchers who have formal links to the small businesses or who are associated with them for the implementation of the project.

The FAPESP PIPE objectives are:

- To use technological innovation as an instrument to increase the competitiveness of small companies;
- To create conditions to enhance the research system's contribution to economic and social development;
- To foster an increase in private investment in technological research;
- To enable the collaboration of small businesses with academic researchers on innovation projects;
- To contribute for the establishment of a culture that values research activities within business environments, technological innovation within small companies, and the employment of researchers in the private sector.

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

The George Washington University

The George Washington University (GW) was created in 1821 through an Act of Congress, fulfilling George Washington's vision of an institution in the nation's capital dedicated to educating and preparing future leaders.

Today, GW is the largest institution of higher education in the District of Columbia. GW has more than 26.000 students – from all 50 states, the District and 130 countries – studying a rich range of disciplines: from forensic science and creative writing to international affairs and computer engineering, as well as medicine, public health, the law and public policy.

GW comprises three campuses – Foggy Bottom and Mount Vernon in Washington, D.C., and the GW Virginia Science and Technology Campus in Ashburn, VA. – as well as several graduate education centers in the metropolitan area and Hampton Roads, VA.

GW | Office of Innovation & Entrepreneurship

The George Washington University Office of Innovation and Entrepreneurship provides programming around innovation, education, venture creation, and making connections to support GW entrepreneurs and the Mid-Atlantic startup community. Founded in 2010, the office has worked with thousands of students, faculty, and alumni, and serves as a focal point for entrepreneurship at GW. It leverages the unique strengths of the university's schools in the nation's capital to serve society at large through the knowledge and practice of entrepreneurship.

GW is one of the eleven universities worldwide designated as National Science Foundation Innovation Corps (I-Corps) Nodes, which promote the Lean Startup Approach for building successful startups.

In 2013, with the help of the office's operations, the George Washington University was placed among the Princeton Review's top 25 universities with the best graduate entrepreneurship programs in the nation.

FAPESP Organizing Committee

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An electronic engineer and a physicist, Brito Cruz is a professor at the Gleb Wataghin Physics Institute, of the State University of Campinas (Unicamp), where he was the rector from 2002 to 2005.

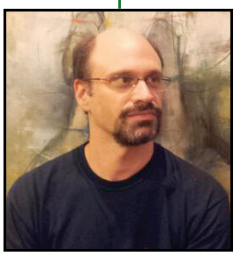
He graduated in electronic engineering at the Aeronautics Technology Institute of (ITA in the Portuguese acronym). He took a master's degree and a doctorate at Unicamp's Gleb Wataghin Physics Institute. He has been a professor at the Unicamp's Physics Institute since 1982. Presently is a full professor at the Quantum Electronics Department.

Brito Cruz was a visiting researcher at the Quantum Optics Laboratory at the Universitá di Roma, at the Femtosecond Research Laboratory at the Universitè Pierre et Marie Curie. and a resident researcher at the AT&T's Bell Laboratories, in Holmdel, New Jersey. At Unicamp he was the Director of Unicamp's Physics Institute from 1991 to 1994 and from 1998 to 2002; Pro-rector for Research from 1994 to 1998, and Rector of the university from 2002 to 2005. He was the the President of FAPESP from 1996 to 2002.

Brito Cruz is a member of the Brazilian Academy of Sciences and a Fellow of the American Association for the Advancement of Science. He received the Ordre des Palmes Academiques de France, the Order of the Scientific Merit from the Federative Republic of Brazil and the Order of the British Empire, Honorary (OBE) in 2015.

FAPESP Organizing Committee

Adjuncts



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Bachelors in Computer Science (USP, 1990), Bachelors in Music (UNESP, 1992), PhD and post-doc in Computer Science (University of Illinois at Urbana-Champain, 2000).

Kon is Full Professor at the Department of Computer Science at the Institute of Mathematics and Statistics at the University of São Paulo and recipient of the CNPq Research Fellowship.

Works in the field of Computer Science, having published over 120 peer-reviewed papers in various themes around Software Development. His main field of research is Distributed Systems and Middleware, area in which he received the "10-Year Best Paper Award" in the ACM/IFIP/USENIX International Middleware Conference in 2010.

He also carries out research in the fields of Software Engineering, Free and Open Source Software, Computer Music, and Innovation and Technological Entrepreneurship. In 2013 he was Visiting Professor at the Technion, Israel, where he conducted research on Software Startup Ecosystems and Digital Entrepreneurship.

Kon is a former international Director of the Open Source Initiative (OSI) and, currently, is the Editor-in-Chief of the SpringerOpen Journal of Internet Services and Applications.

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Bachelors in Business Administration (USP, 1996), MSc in Business and Planning (PUC, 2002) and PhD in Industrial Engineering (Poli-USP, 2008).

Nakagawa is entrepreneurship and innovation professor at INSPER Institute of Education and Research and entrepreneurship director at FIAP (Faculdade de Informática e Administração Paulista).

Works in the field of Entrepreneurship and Innovation, having published 2 books, co-authored another 3 titles and other papers and articles. He is entrepreneurship columnist at O Estado de São Paulo newspaper and Pequenas Empresas, Grandes Negócios magazine.

He also carries out research in the fields of new business creation, innovation management, corporate entrepreneurship and startups. He developed entrepreneurship education programs including Bota Pra Fazer (Endeavor), Inovativa Brasil (MDIC), Empreenda e Conexões (SENAC) e StartupOne (FIAP).

Nakagawa has more than 20 years professional background in industries such as banking, strategic consulting, venture capital, innovation, private equity and education.

FAPESP Organizing Committee

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Received the degree of Electronic Engineer from the Universidade Federal do Rio de Janeiro(1966), M.Sc. in Electrical Engineering from the Coordenação dos Programas de Pós Graduação de Engenharia-COPPE/UFRJ,(1967) and Ph.D in Biomedical Engineering from the University of Pensylvania,(1971). Grynszpan was the head of the Department of Biomedical Engineering (1973-1976) and became Full Professor of COPPE/UFRJ(1975).

He became the head of COPPETEC, in charge of the University projects to Industry and Government (1976-1985) and the head of the Technology Innovation Center (1985-1986), to comercialize the University research results. In 1987, he founded the Technological Park of Rio de Janeiro, with 73 companies specialized in IT and Telecom. He, then, became the President of Riotec, the company that managed the research activities of the park. He was ellected as Vice President of The International Association of Science Parks (1986 to 1989).

Grynszpan founded and headed the Brazilian Association of Biomedical Engineering (1971), was a member of the Conselho Tecnico Cientifico of CAPES/MEC (1975) and Member of the Board of Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) from 1998 to 2002.

In 1989, he became the President of Motorola in Brazil, where he stayed from ten years and was responsible for bringing and installing Motorola´s manufacturing facilities in Jaguariuna, São Paulo. In this plant, Motorola manufactured all cellular phones, radios and pagers sold in Brazil and exported to Latin America.

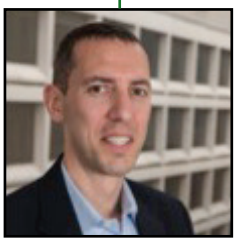
He became Vice President of Abinee – the Brazilian Electronic Industrial Association, until 2001, Member of the Board of Trustees of FIA – Fundação Instituto de Administração,(2000-2006) and Director of Anpei, the Brazilian Association of Innovative Enterprises, until 2008.

He is a Visiting Professor of the MBA Program of the Fundação Instituto de Administração, Director of the Technology Department of the Centro das Indústrias de São Paulo (CIESP), an organization that supports 8,500 industries in the state of São Paulo, and Member of CONIC – the Council of Innovation and Competitiveness of FIESP – the Federation of Industries of the State of São Paulo.

Grynszpan works as business consultant, specialized in innovation, commercialization of University research and entrepreneurship in Brazil and in the international market. He is now working as a consultant to the University of Virginia.

GW Office of Innovation & Entrepreneurship

Program Director



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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.

As Director of the DC I-Corps Accelerator, Dan advises and provides support to all early stage technology companies in the NSF-sponsored DC I-Corps program run by University of Maryland, George Washington University, Virginia Tech University, and John Hopkins University. In addition to working with many ventures that originate in University labs, Dan mentors a growing number of teams from Federal Lab initiatives and from incubators throughout the Washington region. Dan serves as Chairman of the Washington DC Economic Partnership's AccelerateDC program, where he manages a mentor network of technology start-up founders and executives. He is also a Senior Advisor at Venture Well to NSF's National Innovation Network. Dan has also championed, instructed, and/or managed several international I-Corps and lean startup initiatives.

Prior to joining the DC I-Corps team, 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 crowd-sourced 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.

GW Office of Innovation & Entrepreneurship

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Robert Storey is the Principal of The MVR Company and the Managing Director of the Maryland branch of VIC Technology Venture Development, a private, for-profit development firm with offices in Annapolis, Boston, Fayetteville, and San Diego. At VIC, he assists in the assessment and creation of new ventures, with a particular focus on medical technologies. He is currently Chairman for OsteoVantage, a medical device company focused on novel instrumentation used in spinal fusion procedures, and Chairman for Vixiar Medical, a company focused on the remote/non-invasive monitoring of chronic cardiopulmonary diseases and disorders.

He concurrently serves as Executive in Residence for Johns Hopkins University, MD Anderson Medical Center and the University of Maryland, supporting the development and commercialization of medical and engineering technologies. In those roles, he serves on the Johns Hopkins Alliance, the UMB Commercial Advisory Board, the JHU Applied Physics Lab Technology Commercialization Panel, on the Hopkins/Coulter Translational Partnership Oversight Committee, as the Hopkins advocate for medical device and engineering submissions to the Maryland Innovation Initiative, and as the lead instructor for the MD Anderson innovation process.

He is currently a National Instructor for both the National Science Foundation's I-Corps™ and for the National Institute of Health's I-Corps @ NIH™ program. In addition to his role at the US national level, he has been the principle instructor for several international cohorts in the I-Corps & Lean Start-up arena. He is active on a national basis on the subject of assessment and formation of start-up technologies, and sits on the Boards of six start-up and mature firms.

Co-Instructor

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Dan Gordon has over thirty years of experience working with technology, as a computer scientist, software developer, manager, analyst, and entrepreneur.

Prior to joining Valhalla Partners, Dan was a Director and senior staff member at the PricewaterhouseCoopers Global Technology Centre, analyzing technology trends and consulting on technology-oriented strategies in the software, e-business, wireless, optical, networking, semiconductor IP, and life sciences arenas. He worked with clients from North America, Europe, the Middle East, and Australia. Dan was a Contributing Writer and Contributing Editor to the Technology Centre's annual Technology Forecast, and a frequent speaker at industry and general business meetings.

Prior to joining PwC, Dan spent 20 years in Silicon Valley as a software technologist, manager, director, and entrepreneur, including senior technical roles at well-known Silicon Valley firms like Symantec, Intuit, and Oracle. Dan has also been involved in startup companies in the applied Artificial Intelligence and Web applications fields.

Dan has a B.A cum laude from Harvard University and an M.S. degree from New York University in Computer Science. He is a Professional Member of the IEEE and ACM.

GW Office of Innovation & Entrepreneurship

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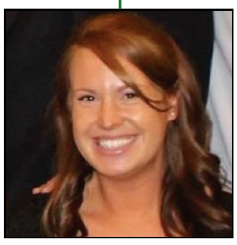
Tengiz is the Program Coordinator for the GW Office of Innovation & Entrepreneurship. He manages promotion, outreach, and operations in support of the New Venture Competition, DC I-Corps, and the International Lean Startup programs at GW. Tengiz comes from the American Society for Engineering Education where he managed federally and privately funded projects on education policy, inclusion, and curriculum design. In 2013, he was involved in implementation of the pilot NSF Innovation Corps for Learning™ program that applies startup principles to innovation within STEM education efforts. In addition, Tengiz managed finances for EcoCAR: Advanced Vehicle Technology Competition program, sponsored by the General Motors and the Department of Energy, and managed operations of the Conrad Spirit of Innovation Challenge, sponsored by NASA, Lockheed Martin, and SpaceX.

Tengiz Sydykov received his Bachelor's in Economics from the George Mason University in Virginia, USA.

Teaching Assistant (remote)



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In addition to serving as the Teaching Assistant for the I-Corps™ programs, Lindsey manages the I-Corps™ programs for the DC regional node. She oversees the region's social media and outreach efforts and assists in the behind-the-scenes work in on-boarding teams, organizing venues, training teaching assistants and planning several regional cohorts and workshops per year. She has also served as the lead Teaching Assistant for international I-Corps programs in Mexico and Korea.
Lindsey received her M.Ed in College Student Personnel Administration and has over a decade of experience in event and conference planning.

Course Syllabus

Course Dates

Kickoff workshop	April 4-6, 2016
Online classes	April 15, 25, and 29, May 6 and 13
Closing workshop	May 18-19, 2016

Course Expectations

Each team member should commit to attending every planned session of the program. Each team must have two members that can commit to class time plus approximately 15-20 additional hours per week, for the full seven weeks of the program, on customer discovery and exercises outside of class. Additional team members must commit to 6-8 hours a week.

Course Description

Customer Discovery is an iterative process of physically 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 will provide teams with real-world, hands-on learning experience with customer discovery and successfully transferring knowledge into products and processes that benefit society. The entire team will engage with industry. You and your team will spend your 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.

This course is about getting out of the building. You will be spending a significant amount of time outside the building, talking to customers and testing your hypotheses about what they want in products and services. We will spend our limited class time on what you learned from talking to customers, not what you already knew coming into the course. Teams should be striving for 15 interviews per week, for a total of 100 interviews by the end of the course.

Class Culture

We have limited time and we push, challenge, and question you in the hope you will quickly learn. We will be direct, open, and tough – just like the real world. We hope you can recognize that these comments aren't personal, but part of the process. We also expect you to question us, challenge our point of view if you 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 you to learn to challenge yourselves quickly and objectively, and to appreciate that as entrepreneurs, you need to learn and evolve faster than you ever imagined possible.

Course Syllabus

Additional Resources

1) These short videos from Steve Blank provide helpful tips and examples for preparing for your customer interviews.

https://vimeo.com/groups/20413 6/videos

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	(2'24)
Death by Demo 1	(2'18)
Death by Demo 2	(1'45)

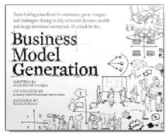
2) For a more detailed explanation of Customer Development and the Lean Startup, here are some short videos of Steve Blank from the Kaufmann Founders School.

http://www.entrepreneurship.org/Founders-School/The-Lean-Approach/Getting-Out-of-the-Building-Customer-Development.aspx
http://www.entrepreneurship.org/Founders-School/The-Lean-Approach/Customer-Development-Data.aspx
http://www.entrepreneurship.org/Founders-School/The-Lean-Approach/Minimum-Viable-Product.aspx

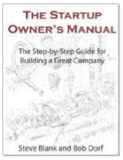
3) All team members should purchase the textbooks outlined on the following page. The Osterwalder books have free e-version previews, and the Constable book has a full free e-version.

Value Proposition and 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

Talking to Humans
Giff Constable
A free download of the book is available at
http://www.talkingtohumans.com



Business Model Generation
Alexander Osterwalder & Yves Pigneur
A free download of the first chapter of the book is available at
http://businessmodelgeneration.com/book



The Startup Owner's Manual
Steve Blank & Bob Dorf

Course Syllabus

Required Pre-Kickoff Assignments

Register for the free Udacity online course – How to Build a Startup (https://www.udacity.com/course/ep245) 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

Highly Suggested Pre-Kickoff Assignments

The following assignments augment the required assignments, and should be used to provide a greater understanding of the material. At a minimum, we recommend that you scan these readings.

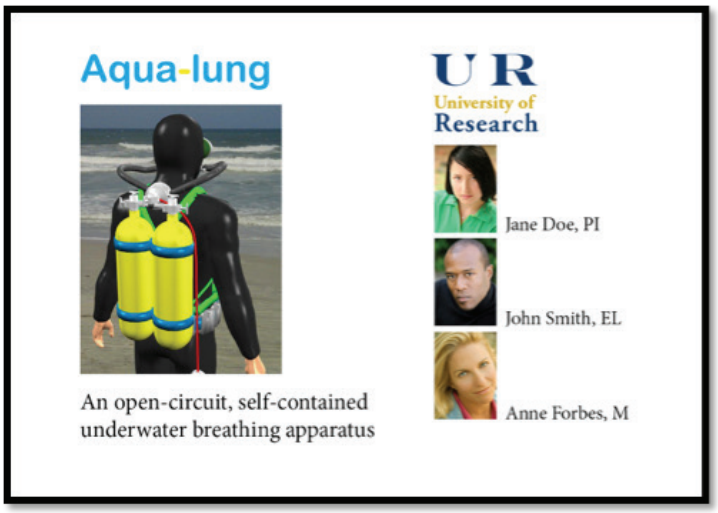
- ***Business Model Generation*** – pages 14-51
- ***The Startup Owner's Manual*** – pages 195-199
- ***"12 Tips for Early Customer Development Interviews"*** by Giff Constable: (http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews)

Required Deliverables for the Kickoff Workshop

1. A two-slide presentation. You *may* be called upon to present to the whole class and will *definitely* present to a group of peers and instructors in a breakout session. See the template provided on the following page.
2. Ten or more customer/industry contacts that you hope to interview on Day 2 of the Kickoff Workshop (April 5th)

Presentation Template for the Kickoff Workshop

Slide 1: Title Slide
Team Name
University or company logo
Product or technology picture & description (1 sentence)
Pictures & names of your team members



Slide 2: Populated Business Model Canvas

Download template from: http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf

Use the questions in the image below to guide your answers – focus on Customer Segments & Value Propositions

Key Partners 6	Key Activities 7	Value Propositions 1	Customer Relationships 4	Customer Segments 2
Who are your key partners? Who are your key suppliers? What are you *getting* from them...and *giving* to them?	What key activities do you require? Manufacturing? Software development? Personal concierge service? Etc.	What customer *problems* are you helping to solve? What customer *needs* are you satisfying?	How will you *get*, *keep* and *grow* customers?	Who are your most important customers? What are their *archetypes*? What job do they want you to get done for them?
	Key Resources 8 What key resources do you require? Financial? Physical? Intellectual property? Human resources?	What are key features of your product/service that match customer problems/needs?	**Channels 3** Through which channels (sales, distribution, support) do you customers *want* to be reached?	
Cost Structure	What are most important costs inherent in your business model? What is mix of fixed and variable costs? **9**	**Revenue Streams**	How will you make money? What is revenue model? What are pricing tactics? **5**	

Kickoff Workshop: Schedule at-a-glance (All times are GMT-3)

Date	Time	Topic	Location
Tuesday, March 29	10:15 am - 12:00 pm	Kickoff meeting with all teams to review requirements, logistics, and to connect mentors to teams	Auditorium
Monday, April 4	8:00 - 8:30 am	Registration	Lobby
	8:30 - 9:00 am	Welcome & Introduction by GW	Auditorium
	9:00 - 10:30 am	Lecture #1: Using Customer Discovery to Build a Business Model, Customers & Value Propositions	Auditorium
	10:30 - 11:00 am	Coffee Break	Lobby
	11:00 am - 1:00 pm	Team Introductions (21 teams: 3 min presentations/2 min comments)	Auditorium
	1:00 - 2:00 pm	Lunch	Lobby
	2:00 - 2:30 pm	Welcome & Introduction by FAPESP	Auditorium
	2:30 - 3:15 pm	Lecture #2: Best Practices for Customer Discovery Interviews	Auditorium
	3:15 - 4:30 pm	Workshop #1: Team Practice Interviews (see details below) & Informal Office Hours	Breakout Rooms
	4:30 - 5:00 pm	Mentor/PI/EL Workshops	Breakout Rooms
	5:00 - 5:30 pm	LPC Training	Auditorium
Tuesday, April 5	All Day	Customer Interviews – in person at customer location	Sao Paulo & surrounding area
	8:00 - 9:30 am or 4:30 - 6:00 pm	Office Hours (20 min sessions – teams will choose one slot based on their interview schedules)	Breakout Rooms
Wednesday, April 6	8:00 - 8:30 am	Welcome Back, Q&A, Discussion	Auditorium
	8:30 - 9:30 am	Team Presentations (3 teams: 20 minutes presentations/comments)	Auditorium
	9:30 - 10:30 am	Team Presentations (9 teams each in 2 rooms: 15 minute presentations/comments)	Auditorium & Breakout Rooms
	10:30 - 11:00 am	Coffee Break	Lobby
	11:00 am - 12:45 pm	Team Presentations (9 teams each in 2 rooms: 15 minute presentations/comments)	Auditorium & Breakout Rooms
	12:45 - 1:45 pm	Lunch	Lobby
	1:45 - 2:45 pm	Lecture #3: Channels	Auditorium
	2:45 - 3:15 pm	WebEx Training	Auditorium
	3:15 - 4:45 pm	Optional Office Hours	Breakout Rooms

Online Classes: Assignments

Required Assignments

You should watch all of the videos in the "*How to Build a Startup*" course (https://www.udacity.com/course/ep245). You can watch these at your own pace, but must have completed by the dates shown below.

By April 29th

- Lesson 4: Channels
- Lesson 5: Customer Relationships
- Lesson 6: Revenue Models

By May 13th

- Lesson 7: Partners
- Lesson 8: Resources, Activities, and Costs

Additional Assignments

The teaching team may assign additional short readings or tasks throughout the course as deemed necessary based on the progress of teams.

Online Classes: Schedule at-a-glance (All times are GMT-3)

Date	Time	Topic
Friday, **April 15** Webinar #1	9:30 - 10:00 am 10:00 am - 12:00 pm 12:00 - 1:00 pm	**Test WebEx** **Team Presentations** Teams present their business model canvas in three concurrent tracks. Each team is allotted 12 minutes total to include 10 minutes for presentations and 2 minutes for teaching team comments. **Lecture #4: Problem Solution Fit** Value Proposition Canvas: Customer Profile & Value Map, Customer Pains/Gains
Monday, **April 25** Webinar #2	9:30 - 10:00 am 10:00 am - 12:00 pm 12:00 - 1:00 pm	**Test WebEx** **Team Presentations** Teams present their business model canvas in three concurrent tracks. Each team is allotted 12 minutes total to include 10 minutes for presentations and 2 minutes for teaching team comments. **Lecture #5: Customer Relationships & Revenue Models**
Friday, **April 29** Webinar #3	9:30 - 10:00 am 10:00 am - 12:00 pm 12:00 - 1:00 pm	**Test WebEx** **Team Presentations** Teams present their business model canvas in three concurrent tracks. Each team is allotted 12 minutes total to include 10 minutes for presentations and 2 minutes for teaching team comments. **Lecture #6: Key Partners**
Friday, **May 6** Webinar #4	9:30 - 10:00 am 10:00 am - 12:00 pm 12:00 - 1:00 pm	**Test WebEx** **Team Presentations** Teams present their business model canvas in three concurrent tracks. Each team is allotted 12 minutes total to include 10 minutes for presentations and 2 minutes for teaching team comments. **Lecture #7: Lessons Learned Presentations & Story Videos** Overview and directions for the final course deliverables
Friday, **May 13** Webinar #5	9:30 - 10:00 am 10:00 am - 12:00 pm 12:00 - 1:00 pm	**Test WebEx** **Team Presentations** Teams present their business model canvas in three concurrent tracks. Each team is allotted 12 minutes total to include 10 minutes for presentations and 2 minutes for teaching team comments. **Lecture #8: Business Model Fit** Resources, Activities and Costs: how to build and validate the rest of your business model

Lessons Learned Workshop: Schedule at-a-glance (All times are GMT-3)

Date	Time	Topic	Location
Wednesday, May 18	8:30 - 9:00 am	Welcome Back	Auditorium
	9:00 - 10:30 am	Lecture & Discussion: Preparing Lessons Learned Presentation & What's Next	Auditorium
	10:30 - 10:45 am	Coffee Break	Lobby
	10:45 am - 12:45 pm	Review Videos & Draft Presentations	Breakout Rooms
	12:45 - 1:45 pm	Lunch	Lobby
	1:45 - 4:30 pm	Individual Team Meetings Teams will be separated into 3 groups and assigned a 20 minutes time slot with an Instructor to discuss next steps and answer questions.	Breakout Rooms
Thursday, May 19	8:00 - 8:30 am	Registration	Lobby
	8:30 - 9:00 am	GW Introduction of Final Presentations	Auditorium
	9:00 – 10:45 am	Team Presentations: 6 teams (10 min presentations/5 min comments)	Auditorium
	10:45 - 11:00 am	Coffee Break	Lobby
	11:00 am - 12:30 pm	Team Presentations: 5 teams (10 min presentations/5 min comments)	Auditorium
	12:30 - 1:30 pm	Lunch	Lobby
	1:30 - 3:00 pm	Team Presentations: 5 teams (10 min presentations/5 min comments)	Auditorium
	3:00 - 3:15 pm	Coffee Break	Lobby
	3:15 - 4:45 pm	Team Presentations: 5 teams (10 min presentations/5 min comments)	Auditorium
	4:45 - 5:15 pm	Closing Ceremony	Auditorium

List of selected companies

Ranking	Company name	FAPESP number	Mentors	Name of the project
1	Marcelo Victor Pires de Sousa Desen. Tec. de Fotomedicina ME	2014/50569-2	Stefan Salej	Scientific and technical feasibility analysis of a light band-aid to phototherapy
2	DEV Tecnologia	2014/50568-6 (Phase 1) 2016/50062-0 (Phase 2)	Helio Graciosa	Application of internet of things technology to enable Product Service System
3	Versor Inovation Company	2014/50223-9	Renato Toi	Integrated System for fatigue and score generation
4	MedTech Serviços de Informática Ltda	2014/21758-1	Roberto P. do Rio Branco	Mobile Platform for Organization of Medical Shifts - MedTime
5	Solarmind Indústria e Comércio Ltda. – EPP	2013/50070-5	Arnaldo Azevedo	Enabling industrial scale manufacturing of thermal storage boilers for solar vacuum tubes water heaters using rotational molding process
6	SmarToys	2015/01085-5	Kleber Bacili	Smart connected toys
7	Itera	2012/51181-2	Jorge Salomão Pereira	e-SHARE Miner: Information management supported by knowledge discovery via topic taxonomy
8	Be Happy!	2015/16028-7	Carlos Calmanovici	A mobile application for conscientious consumption based on collective intelligence
9	VRMonkey	2015/08694-7	Luiz Trivelatto	Technical and scientific feasibility analysis of an immersive synchronous and multi-user virtual reality system about brazilian pre-history for applications in museums and schools
10	ANS Pharma Ltda.	2014/50311-5	Luis Cassinelli	Pharmacological inhibitors effect of endoplasmic reticulum stress and protein kinases TBK1 and IKKε and its use as a drug for metabolic syndrome
11	Addvance Soluções em Informática Ltda	2014/50413-2	Wilson Nobre	AIRKEY - Social access control using mobile devices
12	Salt – Sea & Limno Technologies	2013/50267-3	Marcelo Pilar	Jellyfish aquaculture system for collagen extraction
13	Fisioatual	2012/51366-2	Rodolfo Baccarelli	Feasibility study of the combination of unstable simulator platform associated with video game interactivity as attractive and fidelity-building to postural physiotherapy treatments. Training and fall prevention in the elderly.
14	RVT Energia	2013/50840-5	Ronald Dauscha	Definition of mathematical modeling method for creating an electric power consumption simulator of a refrigeration system
15	Reciclapac	2014/50399-0	Sergio Bergamini	Disposable packaging reuse at automotive sector
16	Debate Saúde (Felipe Azevedo Moretti)	2013/50701-5	Rosana Fernandes	Innovations in health promotion at a distance: development of feasibility study to create an application for monitoring and management of pain and chronic health conditions
17	EnterUp Tecnologia	2015/08191-5	Alexandre Bernardoni	A hybrid recommendation framework for real estate based on geographic information and Big Data
18	DPR Engenharia	2014/22764-5	Virgilio Marques dos Santos	Feasibility study of a procedure to evaluate the effects of the gap without floats occurring in the connection between two drilling riser joints in the VIV Phenomenon
19	Chem4u Indústria e Comércio de Equipamentos e Produtos Químicos Ltda.	2015/15998-2	Jarbas C. de Castro Neto	Research on the technical feasibility of adding nano microbicides additives in catheter material components
20	Scipopulis Desenvolvimento e Análise de Dados Ltda	2015/50343-7	Claudio Violato	A mobile app that provides up to date public transportation information based on the knowledge of the crowd and the its corresponding data analysis system
21	Inova Ltda	2015/15812-6	Valerio Dornelles	From the Big Data to the forecasting technology roadmaps

Ranking	Name of lead entrepreneur	Name of principal investigator
1	Naira Ferreira Bonifácio naira@brightmed.com.br	Marcelo Victor Pires de Sousa marcelo@brightmed.com.br
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