



10th

FAPESP
PIPE-HIGH-TECH

ENTREPRENEURIAL
TRAINING PROGRAM

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





FAPESP Visitante
Usuário: PIPE
Senha: knqn8524

WWW.FAPESP.BR/PIPE/EMPREENDEDOR

The **PIPE-High-Tech Entrepreneurial Training**, offered by FAPESP, 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.

THE TRAINING

The **PIPE-High-Tech Entrepreneurial Training** selects 21 companies, based on the quality of their proposals and the benefits they could obtain from participating. Each company forms a team of three members. Two of them are nominated by the startup: 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 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 FAPESP instructors. 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 startups 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.

About 75% of the companies that participated in the previous editions of the PIPE High-Tech Entrepreneurial Training Program revised their business plans to adjust them to market requirements, thereby increasing the likelihood of success.

WWW.FAPESP.BR/EN

FAPESP is a public foundation funded by São Paulo taxpayers to promote the development of science and technology in the state, by supporting research projects in institutions of higher education and research, official or private, which are selected by a rigorous system of analysis based on the peer-review process.

São Paulo has a population of 43 million and generates 30,3% 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 35% of the scientists with a doctorate in the country, the state responds for 44% 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 2017 FAPESP applied \$PPP 514.6 million in \$ purchasing power parity (PPP) in scholarships and grants.

In accordance with the Foundation's funding objectives, 38% of expenditure was earmarked for advancing knowledge, 5,5% was dedicated to supporting research infrastructure and 56,5% 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.

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.



Inovação Tecnológica
PIPE

WWW.FAPESP.BR/PIPE

OBJECTIVES

- 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.

Since the start of PIPE in 1997, more than 2,000 grants have been awarded to companies. In 2017, 269 new projects were approved – one project per working day and 18% more than in the previous year.

Research supported by FAPESP can be consulted at **FAPESP Grant Database** (www.bv.fapesp.br/en).

More about the research results in the **Agência FAPESP** (www.agencia.fapesp.br/en) and **Pesquisa para Inovação** (www.pesquisaparainovacao.fapesp.br), in Portuguese

COORDINATION

Carlos Henrique de Brito Cruz

Brazil

Scientific Director – Scientific Directorate

São Paulo Research Foundation – FAPESP

Rua Pio XI, 1500 – Alto da Lapa – São Paulo – CEP 05468-901

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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.

Bruto Cruz was a visiting researcher at the Quantum Optics Laboratory at the Università di Roma, at the Femtosecond Research Laboratory at the Université Pierre et Marie Curie. and a resident researcher at the AT&T's Bell Laboratories, in Holmdel, New Jersey, and in Murray Hill, NJ. 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.

Bruto 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.

ADJUNCTS

Flavio Grynszpan

Brazil

Adjunct Panel - Research for Innovation

São Paulo Research Foundation – FAPESP

Rua Pio XI, 1500 – Alto da Lapa – São Paulo – CEP 05468-901

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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 Pennsylvania,(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 commercialize 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 elected 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 Técnico Científico 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 for 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.

ADJUNCTS

Hélio Marcos Machado Graciosa

Brazil

Area Panel – Research for Innovation

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Bachelor's degree in Telecommunications Engineering (1970) and Master's degree in Electrical Engineering (1972) from Pontifical Catholic University of Rio de Janeiro. Graduated from Corporative Governance Brazilian Institute as Administrative Counselor (2009).

Served as a college professor. Former President (1990-1994) and currently Emeritus Member of Telecommunications Brazilian Society.

Worked at CPqD (Telecommunications R&D Center), since its creation (1976), in several areas: digital transmission, optical communication, microelectronics, technological and strategic planning.

TELEBRÁS R&D Director (1995-1998) , CPqD's President (1998-2015) and CEO of CPqD Technologies&Systems Inc. (2000-2015). During his mandate CPqD created technology based startups with manifold business model in several areas: next generation network, optical communication systems, telecommunications clearing services, radio communication systems, optical sensors, fraud detection and prevention services, integrated photonics devices.

Has been President of the Administrative Board of Telesc, Telebahia, Padtec, Trópico, Sistel, member of the Administrative Board of Telergipe, Algar, Cleartech, Telebrasil, member of Fórum Campinas Foundation Board of Trustees and Director at Telebrasil.

Presently is Research for Innovation Area Coordination at FAPESP, member of TELEBRÁS Administrative Board, startup Mentor Director at Fiesp Telecommunications Division, member of IPT (Institute of Technological Research) advising council and Co-founder of Brazil iCorps Institute.

ADJUNCTS

Marcelo Nakagawa

Brazil

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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) and StartupOne (FIAP).

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

TECHNICAL SUPPORT

Lincoln Rodrigues

Brazil

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COURSE SYLLABUS

COURSE DATES

KICKOFF MEETING	MARCH, 11
INITIAL WORKSHOP	MARCH, 18, 19 and 20
ONLINE CLASSES	MARCH, 25 and APRIL, 1
PRESENTIAL CLASS	APRIL, 8
ONLINE CLASSES	APRIL, 15 and 22
CLOSING WORKSHOP	MAY, 7 and 8

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 are not 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) Request access to the Course Repository:
shorturl.at/iuFIV

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

<https://vimeo.com/groups/204136/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)

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:

- ✓ www.entrepreneurship.org/Founders-School/The-Lean-Approach/Getting-Out-of-the-Building-Customer-Development.aspx
- ✓ www.entrepreneurship.org/Founders-School/The-Lean-Approach/Customer-Development-Data.aspx
- ✓ 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/books/value-proposition-design>



TALKING TO HUMANS

Giff Constable

A free download of the book is available at:

www.talkingtohumans.com

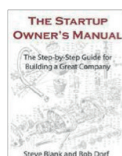


BUSINESS MODEL GENERATION

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 KICKOFF ASSIGNMENTS

You should watch all of the videos in the “*How to Build a Startup*” course:

<https://www.udacity.com/wiki/ep245/downloads>

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You can watch these at your own pace, but it’s recommended to have completed the lectures shown below before initial workshop:

- Lecture 1: What we Now Know
- Lecture 1.5A: Business Models
- Lecture 1.5B: Customer Development
- Lecture 2: Value Proposition
- Lecture 3: Customer Segments

HIGHLY SUGGESTED 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 INITIAL 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 initial workshop

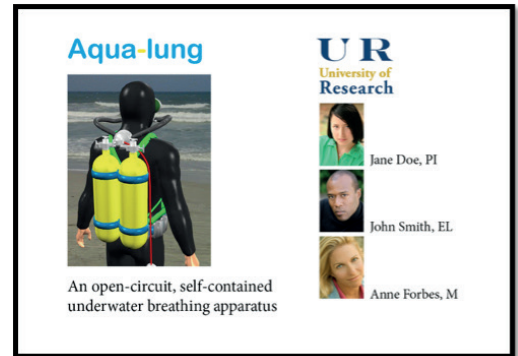
COURSE SYLLABUS

ADDITIONAL RESOURCES

PRESENTATION TEMPLATE FOR THE INITIAL WORKSHOP

SLIDE 1

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

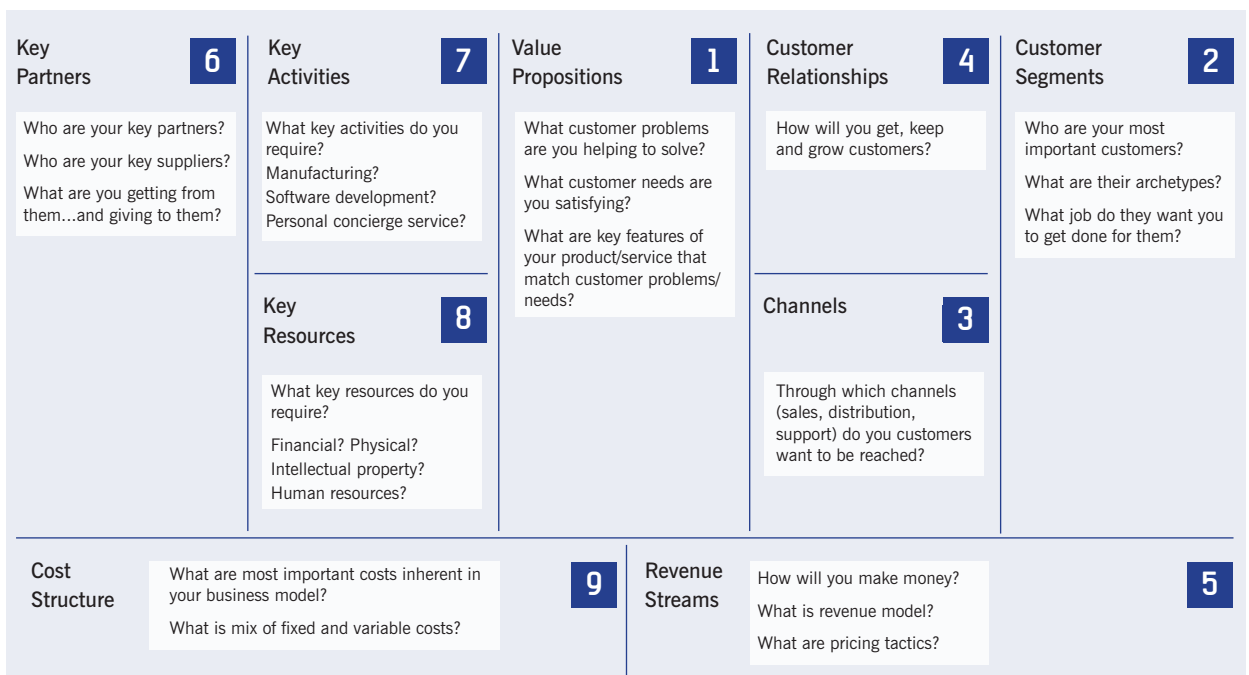


SLIDE 2

Populated Business Model Canvas

It's recommended to create an online template for free at Canvanizer:
<https://canvanizer.com/new/business-model-canvas>

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



KICKOFF WORKSHOP: SCHEDULE AT-A-GLANCE

DATE	TIME	TOPIC	LOCATION
MONDAY March, 11	2:00 pm	Kickoff meeting with all teams to review requirements, logistics, and to connect mentors to teams	Auditorium
	3:15 pm	LECTURE #1: Using Customer Discovery to Build a Business Model, Customers & Value Propositions and required deliverables for the initial workshop	Auditorium
	5:00 pm	Closing	
MONDAY March, 18	8:00 am	Registration	Lobby
	8:30 am	Welcome & Introduction	
	8:45 am	Intellectual Property presentation	Auditorium
	9:30 am	Startup testimony	
	9:45 am	Team Introductions: three minutes for each presentations, another two for comments	Auditorium
	10:15 am	BREAK	Lobby
	10:45 am	Team Introductions continuation	Auditorium
	12:15 pm	LUNCH (restaurants around FAPESP)	
	1:15 pm	Welcome & Introduction by FAPESP	Auditorium
	1:30 pm	LECTURE #2: Best Practices for Customer Discovery Interviews	
	3:00 pm	Support platform training	
3:30 pm	Mentor/PI/EL Workshops		
4:30 pm	Closing		
TUESDAY March, 19	All Day	Customer Interviews – in person at customer location	São Paulo & surrounding area
		Office Hours (20 min sessions)	
	1:00 pm	Teams will choose one slot based on their interview schedules	Multiuse Room
	4:00 pm	Closing	
WEDNESDAY March, 20	8:15 am	Welcome Back, Q&A, Discussion	Auditorium
	8:30 am	LECTURE #3: Channels	
	9:30 am	WebEx Training	
	10:00 am	BREAK	Lobby
	10:30 am	Team Presentations – 6 teams in each rooms: 10 minutes for presentations and 5 for comments	Breakout Rooms
	12:30 pm	LUNCH (restaurants around FAPESP)	
	1:30 pm	Team Presentations – 5 teams in each rooms: 10 minutes for presentations and 5 for comments	Breakout Rooms
	3:00 pm	Optional Office Hours	Auditorium
	5:00 pm	Closing	

ONLINE AND PRESENTIAL CLASSES: ASSIGNMENTS

REQUIRED ASSIGNMENTS

You should watch all of the videos in the “*How to Build a Startup*” course:

<https://www.udacity.com/wiki/ep245/downloads>

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You can watch these at your own pace, but you must have completed the lectures shown below by March and April.

- Lecture 4: Channels
- Lecture 5: Customer Relationships
- Lecture 6: Partners (Presential Class)
- Lecture 7: Revenue Models
- Lecture 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 AND PRESENTIAL CLASSES: SCHEDULE AT-A-GLANCE

DATE	TIME	TOPIC
MONDAY March, 25 (ONLINE)	1:00 pm 2:00 pm 4:00 pm 5:00 pm	Test WebEx Team Presentations * LECTURE #4: Problem Solution Fit Value Proposition Canvas: Customer Profile & Value Map, Customer Pains/Gains Closing
MONDAY April, 1 (ONLINE)	1:00 pm 2:00 pm 4:00 pm 5:00 pm	Test WebEx Team Presentations * LECTURE #5: Customer Relationships & Revenue Models Closing
MONDAY April, 8 (PRESENTIAL)	1:15 pm 3:15 pm 4:00 pm 5:00 pm	Team Presentations * BREAK LECTURE #6: Key Partners <i>(Presential Location: FAPESP – Rua Pio XI, 1500 – Alto da Lapa – São Paulo)</i> Closing
MONDAY April, 15 (ONLINE)	1:00 pm 2:00 pm 4:00 pm 5:00 pm	Test WebEx Team Presentations * LECTURE #7: Business Model Fit Resources, Activities and Costs: how to build and validate the rest of your business model Closing
MONDAY April, 22 (ONLINE)	1:30 pm 2:00 pm 4:00 pm 5:00 pm	Test WebEx Team Presentation * LECTURE #8: Lessons Learned Presentations & Story Videos Overview and directions for the final course deliverables Closing

* TEAM PRESENTATIONS

Teams present their business model canvas in three concurrent tracks. Each team is allotted 15 minutes total to include 10 minutes for presentations and 5 minutes for teaching team comments.

LESSONS LEARNED WORKSHOP: SCHEDULE AT-A-GLANCE

LOCATION:

SÃO PAULO RESEARCH FOUNDATION - FAPESP
RUA PIO XI, 1500 - ALTO DA LAPA - SÃO PAULO, SP

DATE	TIME		LOCATION
TUESDAY May, 7	8:30 am	Welcome Back	Auditorium
	9:00 am	Review Videos & Draft Presentations	Breakout Rooms
	10:30 am	BREAK	Lobby
	11:00 am	Review Videos & Draft Presentations	Breakout Rooms
	1:00 pm	LUNCH (restaurants around FAPESP)	
	2:00 pm	Chat with investors	Auditorium
	4:00 pm	Office hours	
	5:00 pm	Closing	
	WEDNESDAY May, 8	8:00 am	Registration
8:30 am		FAPESP Introduction of Final Presentations	Auditorium
9:00 am		Team Presentations: 6 teams (10 min presentations / 5 min comments)	Auditorium
10:45 am		BREAK	Lobby
11:00 am		Team Presentations: 5 teams (10 min presentations / 5 min comments)	Auditorium
12:30 pm		LUNCH (restaurants around FAPESP)	
1:30 pm		Team Presentations: 5 teams (10 min presentations / 5 min comments)	Auditorium
3:00 pm		BREAK	Lobby
3:15 pm		Team Presentations: 5 teams (10 min presentation / 5 min comments)	Auditorium
4:45 pm		Closing Ceremony and Certificate Release	Auditorium

LIST OF SELECTED COMPANIES

Company 01: ALBA SENSORS AND DIAGNOSTICS

Name of the project: Sensor de ar exalado para o diagnostic clínico precoce de câncer de mama
Entrepreneur: Alexandre Liberati / e-mail: alex.liberati@albasensors.com
Principal investigator: Paula Regina Fortes / e-mail: prfortes@gmail.com
Mentors: Claudio Violato e Loraine Mondini

Company 02: AGRICONNECTED TECNOLOGIA E INOVAÇÃO

Name of the project: Manutenção preditiva de motores a diesel para aplicação em maquinas agrícolas de plantio e colheita
Entrepreneur: Boris Rotter / e-mail: boris.rotter@agriconnected.com
Principal investigator: Luis Martins / e-mail: luis.martins@agriconnected.com
Mentors: Joao Botelho e Wagner Ferreira

Company 03: BART SOLUÇÕES DE TECNOLOGIA DIGITAL

Name of the project: Consorcio de Blockchain voltado para o credito do agronegócio brasileiro
Entrepreneur: Mariana Bonora / e-mail: mariana@bartdigital.com.br
Principal investigator: Guilherme Costa / e-mail: guilherme@bartdigital.com.br
Mentors: Luiz Carlos Heiti Tomita e Joao Lencioni

Company 04: MRA INDÚSTRIA DE EQUIPAMENTOS ELETRÔNICOS LTDA

Name of the project: Desenvolvimento de um detector oticamente estimulável para dosimetria pessoal e médica
Entrepreneur: José Luiz Bruçó / e-mail: jlbruco@mra.com.br
Principal investigator: Luiz Carlos de Oliveira / e-mail: luizcarlosusp@gmail.com
Mentors: Cesar Pomin e Nelson Moreno

Company 05: BIOINFOOD SOLUÇÕES EM BIOTECNOLOGIA

Name of the project: Plataformas biotecnológicas para a indústria de alimentos e bebidas
Entrepreneur: Gabriel Galembeck / e-mail: gabriel@bioinfood.com
Principal investigator: Osmar Vaz de Carvalho Netto / e-mail: osmar@bioinfood.com
Mentors: Luis Cortez e Lauro Moretto

Company 06: CENTRO TÉCNICO DE AVALIAÇÃO GENÉTICA

Name of the project: Desenvolvimento de ferramentas para aconselhamento genômica, visando o aumento da produtividade de rebanhos de gado de corte
Entrepreneur: Daniel Pereira Lobo / e-mail: daniel.lobo@ecolog.com.br
Principal investigator: Raysildo Barbosa Lobo / e-mail: raysildo@ideonline.org
Mentors: Fabio Barrionuevo e Glauber Jose Vaz

Company 07: CLARUS TECHNOLOGY DO BRASIL

Name of the project: Inovando a bebida brasileira de todo o dia: obtenção de extrato fluido concentrado de café com propriedades funcionais
Entrepreneur: Carlos Augusto Marques / e-mail: cam@brclarus.com
Principal investigator: Kleber Augusto Marques / e-mail: kleber.marques@brclarus.com
Mentors: Jose Eduardo Martins e Kathleen Martin

LIST OF SELECTED COMPANIES

Company 08: COGSIGN

Name of the project: Pulseiras inteligentes para monitoramento de sinais vitais usando a rede Mesh e Bluetooth e sistema de saúde e diagnose preventiva com dados dinâmicos
Entrepreneur: Marcos Colussi Carneiro / e-mail: marcos.carneiro@cogsign.com
Principal investigator: Alexandre del Rey / e-mail: alexandre.delrey@cogsign.com
Mentors: Francisco Matulovic e Fabio P.M.S. Castro

Company 09: CONVET REPRODUÇÃO E SAÚDE ANIMAL

Name of the project: Proteoma de espermatozoide bovino: identificação de biomarcadores de sucesso para fertilidade
Entrepreneur: Eduardo Gualtieri de Andrade Perez / e-mail: eduardoconvet@gmail.com
Principal investigator: Roseli Fernandes Goncalves / e-mail: rfgoncalves@gmail.com
Mentors: Margareth M.B. Fortes e Jorge Marinho

Company 10: CITY TECH

Name of the project: Urban Insights:deep learning aplicado a governança de cidades
Entrepreneur: Ricardo Igor Souto Guimaraes / e-mail: ricardo@citytech.ai
Principal investigator: Rafael Pillon Almeida / e-mail: rafael@citytech.ai
Mentors: Ayrton Aguiar e Ricardo Marar

Company 11: ECO BIOTECH TECNOLOGIA EM MANUTENÇÃO

Name of the project: Desenvolvimento e determinação da eficácia de produtos de origem bacteriana para tratamento de efluentes
Entrepreneur: Rodrigo Nery / e-mail: nery@ecobiotech.com.br
Principal investigator: Thais Carvalho Maester Casanova / e-mail: thaismaester@ecobiotech.com.br
Mentors: Alberto Ozolins e Odair Gomes Salles

Company 12: ESTATERA PESQUISA E SOLUÇÕES EM TECNOLOGIA DA INFORMAÇÃO

Name of the project: Estudo de software para apoio a produção agrícola baseado em análise multicritério e aprendizado de máquina
Entrepreneur: Leandro Garcia / e-mail: leandro.garcia@estatera.com.br
Principal investigator: Elaine Priscila de Andrade Garcia / e-mail: elaine.garcia@estatera.com.br
Mentors: Eliana de Martino e Marcio Koiti Chiba

Company 13: RG MOREIRA TECNOLOGIA

Name of the project: Desenvolvimento de um espectrômetro de mobilidade iônica visando monitorização terapêutica do bussulfano.
Entrepreneur: Cely Ades / celyades@gmail.com
Principal investigator: Raphael Garcia Moreira / contato@sonata.solutions
Mentors: Alex Julian e Valerio Dornelles

Company 14: INDIGO LABS

Name of the project: Aplicação de técnicas fotométricas e de visão computacional em exames laboratoriais de amostras de sangue em fase pré-analítica
Entrepreneur: Gabriel Delage e Silva / e-mail: gdelage@indigo-labs.com
Principal investigator: Pietro Teruya Domingues / e-mail: pietrodomingues@gmail.com
Mentors: Marcelo Pilar e Dalton Pessoa

LIST OF SELECTED COMPANIES

Company 15: **IMUNOTERA SOLUÇÕES TERAPÊUTICAS**

Name of the project: Desenvolvimento translacional e validação pré-clínica de uma imunoterapia contra tumor induzidos pelo vírus do papiloma humano (HPV)

Entrepreneur: Luana Moraes / e-mail: lu.mmoraes@gmail.com

Principal investigator: Bruna Porchia / e-mail: brumaldonado@gmail.com

Mentors: Christine Nogueira e Marina Caldeira

Company 16: **KERNO GEO SOLUÇÕES**

Name of the project: Avaliação não destrutiva de arvores em ambiente urbano através da combinação dos métodos da eletrorresistividade e ground penetrating radar

Entrepreneur: Marcelo Farias Caetano / e-mail: marcelo.caetano@gmail.com

Principal investigator: Vinicius Rafael Neris dos Santos / e-mail: vinicius@kerno.com.br

Mentors: Stefan Salej e Marcio Barbas

Company 17: **NEURALMIND INTELIGÊNCIA ARTIFICIAL**

Name of the project: Sistema para leitura robusta de textos em imagens utilizando deep learning

Entrepreneur: David Felice / e-mail: david.felice@neuralmind.ai

Principal investigator: Roberto A. Lotufo / e-mail: roberto@neuralmind.ai

Mentors: Eliane Zambon e Carla Guimaraes

Company 18: **OMICS BIOTECNOLOGIA ANIMAL**

Name of the project: Produção de concentrado de proteína derivadas de células estromais multipotentes para aplicação clínica em medicina veterinária

Entrepreneur: Marina Landim e Alvarenga / e-mail: m_alvarenga@hotmail.com

Principal investigator: Sergio Eduardo Rosa / e-mail: contato@omicsbiotecnologia.com.br

Mentors: Jadir Nunes e Teresa Sachetta

Company 19: **ORIGINAL AMAZON ASSESSORIA EMPRESARIAL**

Name of the project: Bases fisiológicas para a produção contínua e controlada de alevinos de pirarucu em cativeiro, para sustentar volumes de produção de carne a níveis industriais

Entrepreneur: Jorge Souza / e-mail: jorge@fijinegocios.com.br

Principal investigator: Rossana Venturieri / e-mail: ro.venturieri@gmail.com

Mentors: Veronica Peixoto e Roberto Paranhos

Company 20: **TAMBORA ENGENHARIA**

Name of the project: Modificadores reológicos a base de nanopartículas de celulose aplicados na manufatura aditiva de geopolímeros

Entrepreneur: Marcio Jose Cuccolo Rosales / e-mail: mcuccolo@hotmail.com

Principal investigator: Saionara Vilhegas Costa / e-mail: saionaravilhegas@gmail.com

Mentors: Israel Guratti e Rafael Pellicciotta

Company 21: **T-JUMP TECNOLOGIAS**

Name of the project: Radar de sensoriamento remote transportado por drone

Entrepreneur: Shaila Fabi Moreira / e-mail: shaila.moreira@t-jump.net

Principal investigator: Dieter Lubeck / e-mail: dieter.lubeck@t-jump.net

Mentors: Edgar Fernando Santa Flores e Jorge Salomão Pereira



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DO ESTADO DE SÃO PAULO

SÃO PAULO RESEARCH FOUNDATION

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