



香港大學理學院
Faculty of Science
The University of Hong
Kong



DO YOU ASPIRE TO BECOME AN ENTREPRENEUR?



BUT YOU LACK...

**GOOD SKILL SETS / IDEAS / PRODUCTS / TEAMMATES /
MENTORS / BUSINESS NETWORKS / PRACTICE OPPORTUNITIES**

MINOR in SCIENCE ENTREPRENEURSHIP

for UG students (max 20) from all faculties

YEAR 2019 - 20

**Date: 9 AUGUST 2019 (FRIDAY)
10:30 am – 11:15 am
CPD-2.19, Centennial Campus**

SPEAKER: DR. ROCKY LAW

PROGRAM DIRECTOR OF THE MINOR IN SCIENCE ENTREPRENEURSHIP



**Knowledge of
entrepreneurs
hip**



**Insights into forming business
from technological
innovation & customer need**



**How to produce investment
and business proposals**



**Pitching skills
for
fundraising**

It is anticipated that students from different faculties will form their own startup companies upon completion of this Minor.

Dr. Rocky Law



- **Program Director of Minor in Science Entrepreneurship at HKU**
- **Former Director of Praxis Green Consulting Limited**
 - ⇒ Handled many different types of startups that covers areas of Block chain, Energy, Biotech, Medical Devices, TCM, IOT, TMT, Nanotech, Materials and IC design...etc.
- **Former Director of Entrepreneurship Center at HKUST**
 - ⇒ Founding and responsible for the Center operation and nurturing in-house startup companies, e.g. DJI
- **Former Associate Director of Technology Transfer Center at HKUST**
 - ⇒ Responsible for all biotech related IP management (from creation to commercialization) and setup university-industrial collaboration, e.g. setup of GSK-HKUST joint laboratory
- **Former Research Manager of Amoy Limited (Groupe Danone)**
 - ⇒ Responsible for all soy sauce technical matters (from laboratory to post-production) and carried out scientific research, e.g. concurrently leading 6 research groups in HK Amoy, Shanghai Amoy, HKU, UMIST, R&D Center at Crealis and Tepral in Danone Group

Why People Want to Become Entrepreneurs

Top 5 reasons why people start their own business



Money



Flexibility of being
your own boss



Control over
decision making



Pick the team you
want to work with



Legacy: Leaving
your footprint

General Success Rate of University Startups

- ▶ Forbes magazine says 90 % of startups fail.
- ▶ Just 1 % of startups by university graduates succeed in Hong Kong.

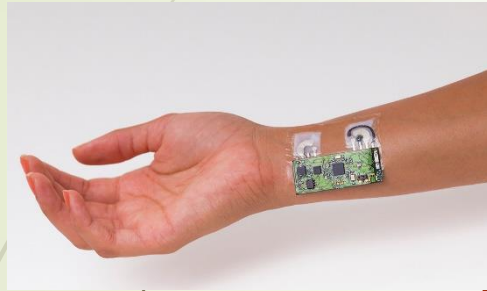
http://www.chinadaily.com.cn/hkedition/2017-01/17/content_27975468.htm

Common Problems found in University Startups

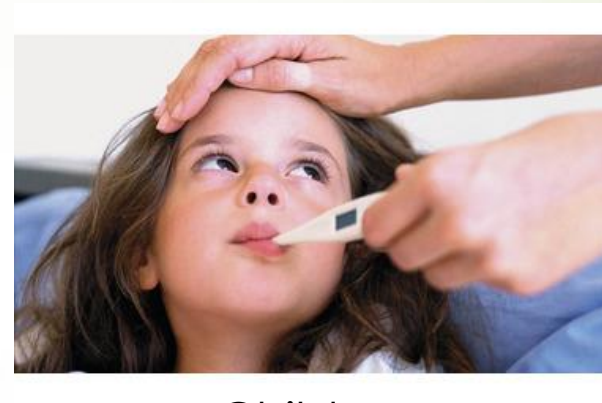
- Assuming all business ideas and technologies from university students/alumni/faculty are good in the company founding stage
- Why most of them still cannot pass the valley of darkness and die

Common Problems found in University Startups

- 1. Direction being changed too often
 - Founders: Technical background and lack of market sense



A wearable product with biological sensors



Children



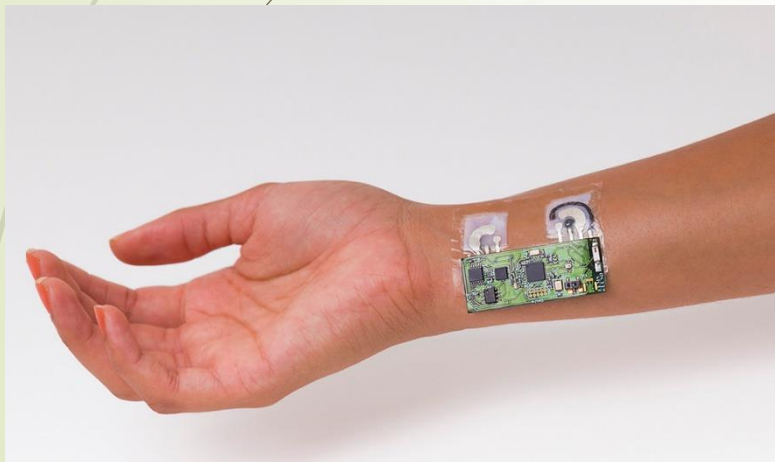
Athlete



Construction worker

Common Problems found in University Startups

- ▶ 2. Market need and technology do not match

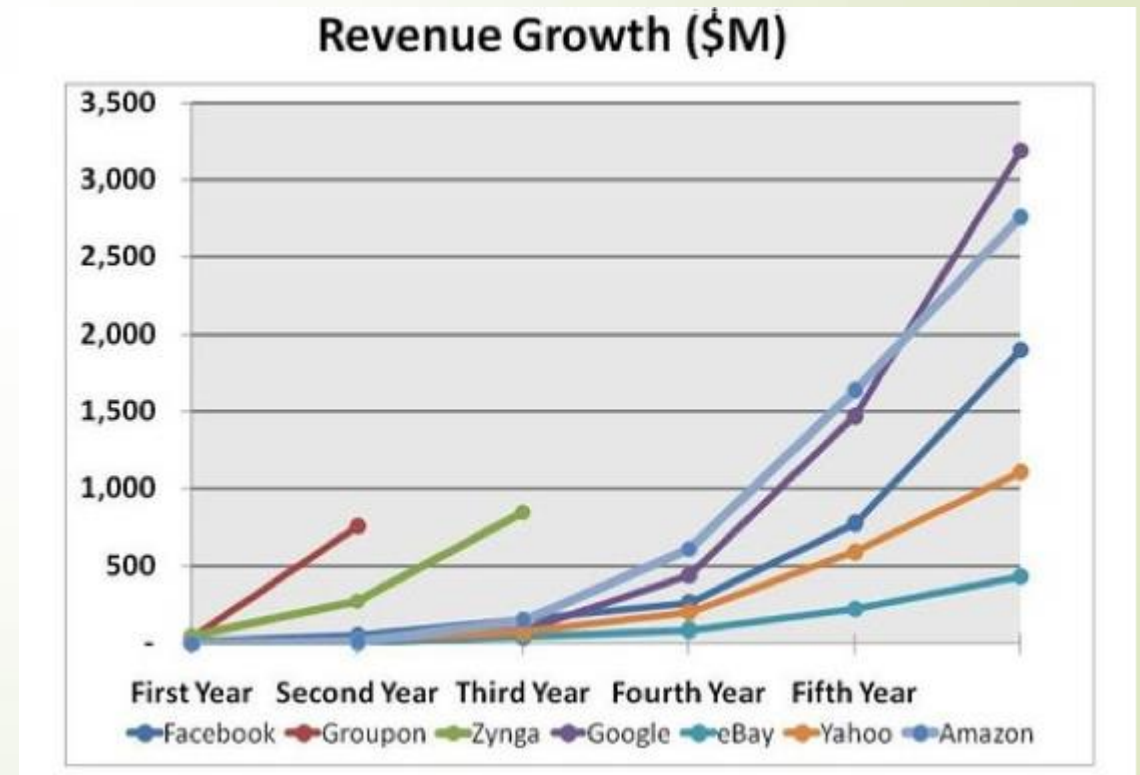


Do you think the end users (construction workers) that work under 40-45 °C in summer will wear this product at work?

Common Problems found in University Startups

➤ 3. No realistic business plan

- All team members have no financial background or market sense
 - E.g. capture 10% of global market shares in year 3



Common Problems found in University Startups

4. Lack of Credibility, Connection and Guidance

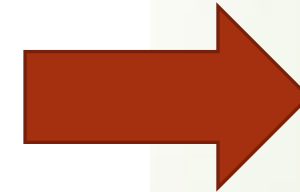
iFlight

University startup
founded by
UG+PG students
While still studying in Uni



HKUST

A member of
HKUST Entrepreneurship Program
@ the HKUST Entrepreneurship Center



- A company specialized in Drone and its value is US\$ 20 billion as of 2018
- Frank became world one of top 100 young entrepreneurs in Feb 2019

Common Problems found in University Startups

- 5. Lack of smart marketing strategy



DJI PHANTOM 2

+



VS



PARROT AR.DRONE

+

?

Common Problems found in University Startups

- ▶ 6. Lack of initial fund to kick start
 - ▶ A handheld device for gutter oil detection



Objectives of the Minor

- ▶ To create a new career path for students in HKU to excel
 - ▶ Building a career in professional fields is more difficult now, e.g.
 - ▶ Graduate **works in big 4** does not have good starting point
 - ▶ Hong Kong government has started to invest a lot of money in innovation and entrepreneurship recently, e.g. **extra HKD 50 billion budgeted**
- ▶ To help students to set up more viable business ventures
 - ▶ Forbes magazine says **90 %** of startups fail.
 - ▶ **Just 1 %** of startups by university graduates succeed.
- ▶ To help students to create more jobs for other

http://www.chinadaily.com.cn/hkedition/2017-01/17/content_27975468.htm

Program Structure



➤ 6 Courses (6 credits each)

➤ 2019-20 1st Semester

- ENTR2001 Professional and Leadership Development
- IIMT1611 Principles of Technology Entrepreneurship

➤ 2019-20 2nd Semester

- ENTR3001 Science-based Innovation Development
- ENTR3002 Customer Analysis and Strategic Marketing

➤ 2019-20 Summer Semester

- ENTR4966 Entrepreneurship Internship

➤ 2020-21 1st Semester

- ENTR4999 Entrepreneurship Project

Course Content



► 2019-20 1st Semester

► ENTR2001 Professional and Leadership Development

► **Part 1: Career Essentials**

- 1. MBTI: Personality and Career
- 2. Graduate Employment Update & Career Planning
- 3. CV, Cover Letter & Personal Statement Writing
- 4. Interview Skills
- 5. Presentation Skills & Impromptu Talk
- 6. Group Discussion & Case Presentation

► **Part 2: Career Enrichment**

- 1. Creativity & Innovation at Work
- 2. Networking Skills
- 3. Meet the Insiders
- 4. Communication, Teamwork & Leadership

Course Content

➤ 2019-20 1st Semester

➤ IIMT1611 Principles of Technology Entrepreneurship

- Foundational of entrepreneurship

- Student learn

- the entrepreneurial process of the technology industry in general.

- the fundamental aspects of launching a technology entrepreneurial venture to complement the research and development activities in science and technology.

- common practices in venture development process such as opportunity identification and verification, to technology transfer and commercialization.

- Topics on legal subjects, e.g. intellectual properties & patent laws, and simple financing & strategic approach in the business plan...etc.

- Sharing sessions by entrepreneurs will be one of the important components of this course, in order to further nurture an entrepreneurial mindset via learning from real-life examples in this specific industry of technology.



Prof. Joseph Chan

Course Content

► 2019-20 2nd Semester

► ENTR3001 Science-based Innovation Development

► Technology/product to Market approach

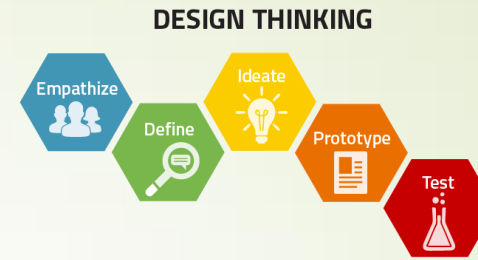
► Student learn

- how business opportunities can be generated from science and technology.
- the process of translating scientific ideas to commercial products and/or services and the challenges therein.
- to understand the different regulatory requirements for science and technology based business opportunities, including the different stages of clinical trial required for biomedical-related products/ services.
- to identify potential business ideas from science and technology research and to synthesize a feasible action plan for a start-up company



Dr KOTAKA, Masayo

Course Content



Dr. Rocky Law

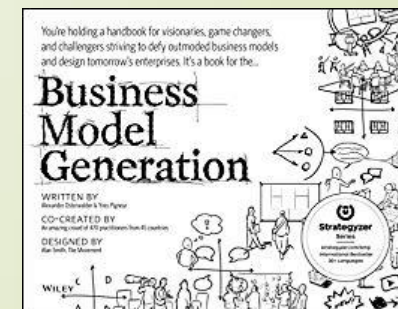
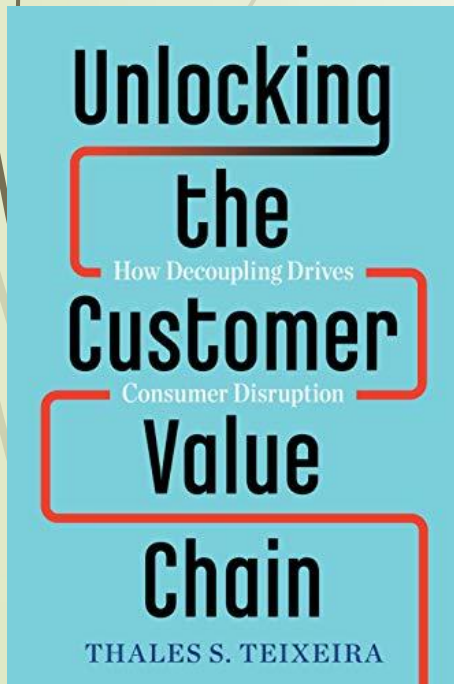
2019-20 2nd Semester

ENTR3002 Customer Analysis and Strategic Marketing

- Market to technology/product approach

- Students learn to

- identify customers' needs and market situations.
- define strategies to satisfy customers' needs and to capture market shares
- develop systematic approaches for commercializing an innovation from the result of analyzing the current market condition and customers' need.
- develop a business plan to commercialize such an innovation.



Course Content

► 2019-20 Summer Semester

► ENTR4966 Entrepreneurship Internship

- Students group themselves as a 4-member team (preferably from different faculty)
- Each team will be sent to a real early stage startup in HK
 - To learn its daily operation
 - To do a specific task that assigned by the startup
 - To write an investment proposal for the startup
- Bi-weekly training/coaching will be provided to students during internship period



Dr. Rocky Law

Course Content

► 2020-21 1st Semester

► ENTR4999 Entrepreneurship Project

► This course is to provide opportunity for students to:

► Solicit business opportunity (better to be a Billion \$ Idea)

► From Market

► From Professors at HKU

► From Yourself

► Do due diligent for the business opportunity

► Market / Product

► Produce a detail business plan and investment proposal that is ready

► for pitching and fund raising



Dr. Rocky Law

Key Factors of the Minor

- ▶ Multi-disciplinary Creativity-Entrepreneurship Approach
 - ▶ Science + Engine + Business +
- ▶ Unique Hand-in-Hand Walk Through Process to create a business venture
 - ▶ Learning the essentials
 - ▶ Internship in startups
 - ▶ Learning the daily operation of the startup
 - ▶ Helping to write the investment proposal for the startup
 - ▶ Practice what you learn
 - ▶ Forming your own venture
 - ▶ Post Minor follow-up
 - ▶ Further coaching
 - ▶ Business Plan competition
 - ▶ Application of incubation Program
 - ▶ iDendron at HKU
 - ▶ HKSTP/CyberPort
 - ▶ Fund raising activities
 - ▶ Government TSSSU Fund at HKU
 - ▶ Angel investors
 - ▶ Almost bulletproof setup
 - ▶ ~20 years experience in tech transfer and entrepreneurship with extensive business network for startups

Key Factors of the Minor

► Mentor Pool

► Selected seasoned mentors



Dr. Samson Tam,
Chairman of Group
Sense (International)
Limited



Dr. Wai Shun Lo,
General Partner
of DL Capitals
(點亮資本)



Mr. Edmond Lau,
Managing Director
of LingFeng Capital
Management Ltd
(領風資本)



Mr. Mingles Tsai, CXO
of ParticleX



Mr. Fred Yung, Former
Head of HKSTP
incubation program,

► And more.....

Key Factors of the Minor

► Angel Pool

► HKBAN

► Up to HKD 20 million



► Individual Angel (accumulated ~ 20 years collection in the market)

► Family Funds

► Individual billionaires

► Seasoned investors

Anticipated Outcome

➤ *With*

- *Teaching and coaching by internal and external expertise*
- *Practicing in a real startup*
- *Coaching and mentoring by professional **consultant and angel investor***

➤ *We anticipate*

- *Students will*
 - *Form their team with different disciplines during studying*
 - *Setup their own startup companies and*
 - *Successfully raise fund within the first year after completion of this Minor*

Selection Criteria

- ▶ General expectation
 - ▶ Students have strong desire to form their own companies
- ▶ Bonus points
 - ▶ Students have entrepreneurial experience, e.g. forming startup or attending business competitions...etc.
 - ▶ Students have already partnered with other students to form a very strong team
 - ▶ Students come with an excellent idea/product
- ▶ Preferred students
 - ▶ Year 3 students
 - ▶ Complete the Minor in Year 4 -1st Semester then start fund raising in 2nd Semester then graduate
 - ▶ Investor will not need to wait for them another year to operate the company
- ▶ Can consider
 - ▶ Year 4 students
 - ▶ They must decide to defer half a year in order to complete the Minor
 - ▶ Year 2 students
 - ▶ They need to show their specialties, e.g. any of the bonus points mentioned above

Selection Procedure

- Only 20 seats for this Minor
- To help students to build a better team, it is recommended for each student to write a one page proposal that shows
 - Who you are
 - Name, Student No., Faculty, Major, Year of Study, email address, Tel No., Date
 - How special you are
 - Why you should be chosen, e.g. because you have
 - Excellent team (Preferably including at least science, engineering, business students)
 - Excellent idea
 - Excellent experience...etc.
- Interview will be arranged

Good News for You

- From USD 10,000 investment to ~HKD USD 10 million as of 3 April 2019



HKUST - Startup



DJI is a company specialized in Drone and its value is > US\$ 20 billion as of 2018

CUHK - Startup



CUHK alumnus Dr. Li Xu, Co-founder and CEO of SenseTime delivers a keynote speech 'The Development of AI: Its Visible Future'.

Sense Time valuation is > US\$4.5 billion as of May 2018

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HKU - Startup



You

Alumnus Sharing



Data Ng (PhD in Physics, HKU)

http://bit.do/42LAB_FOS



Thanks

Q&A