B8527- HACKING FOR HUMANITY & THE PLANET VENTURE INCUBATOR

SPRING 2022 (B Term)

Wednesdays, 5:40 – 8:55 pm (Geffen 570)
March 23 - April 27, 2022

PROFESSOR: Joy Fairbanks
Office: 217E Uris
E-mail: jag32@columbia.edu
Office Hours: W 4:30-5:30 pm, 9:00-9:30 pm & Upon Request

COURSE ASSISTANT
CA: Leslie Kuo
E-mail: LEK2162@columbia.edu

Communications from professor and teaching assistants about the course will take place through Slack and Canvas. Students should make sure they regularly check for announcements and messaging notifications.

COURSE DESCRIPTION

This course is an incubator for startups making tangible impact on people or the planet. The spirit of the course is to foster cross-campus access and collaboration to leverage Columbia talent and resources to build your team, access any necessary technology, advance your venture, and gain investor interest.

The Hacking for Humanity & the Planet Venture Incubator is an application only, 6-week (1.5 credits) structured experiential course offered to MBAs and interested students across Columbia University’s schools. Columbia alumni, forming a team with a minimum of two students registered for the course, may audit. Students will build new or advance existing social, environmental, health, and other impact ventures through collaborative investigation, experimentation, iterative design, network building, and compelling presentations to interested stakeholders. Potential ventures are mission driven and may span a broad range of sectors. Eligible ventures may be for-profit, hybrid for-profit / nonprofit, or a uniquely innovative nonprofit.

This incubator emphasizes the double bottom line, encourages students to seek large market opportunities, and sets the expectation to materially leverage Columbia’s cross-campus talent and resources. Lean Launchpad and Design Thinking techniques will be used. Each session will consist of team presentations, lessons, inter-team collaboration, and mentoring.

Student teams finish the course with a Minimum Viable Product (MVP), a validation-driven business model, preliminary pro formas (with data room), an investor ready pitch deck, demo day experience, and a one-page investment circular for introductions.

Course Objectives

- Build skill sets to launch a double impact venture.
- Enable essential networking for venture and professional advancement.
- Leverage university resources of two or more schools, the Columbia Global Centers, and the alumni network.
- Catalyze traction on customer discovery and business model validation.
Columbia Business School

- Guide the startup launch on tight financial constraints.

Who should take this class?

- Columbia students interested in launching a viable startup with a double bottom line objective.
- Any current Columbia student with a venture idea but in need of a team is welcome to attend the pre-course mixers to build a team for the course.
- Any current Columbia student without a venture idea but interested in joining a team is encouraged to attend the pre-course mixers to join a team for the course.
- Columbia alumni founders who recruit 2-3 interested registered Columbia students to their teams are welcome to audit.

What topics for impact ventures are suitable for this class?

- The [UN Sustainable Development Goals (SDGs)](https://www.un.org/sustainabledevelopment/sustainable-development-goals/) provide a useful framework for possible topics.
- See examples of [Columbia-affiliate impact ventures](https://www.columbia.edu/cu/center/columbia-fund.html) within the Tamer Fund’s portfolio of companies.
- Suitable impact ventures include but are not limited to: health and wellness, climate impact/environmental sustainability, urbantech/smart cities, education, future of work, foodtech/agritech, fintech, insurtech, journalism/new media, human rights/social issues, economic or digital inclusivity, etc.

COURSE ADMISSION, RECRUITMENT, & TEAM FORMATION

By Application: MBA focused, interschool teams encouraged (undergraduates included). No prerequisites.

Recruitment: [Hacking for Humanity](https://www.sustainability.columbia.edu/hacking-humanity), cross-campus outreach, information session(s) to stimulate the discussion of venture proposals and facilitate team building.

Team Formation: Teams must be confirmed in order to apply to the course. **3-4 person team minimum.** 3 team members must be actively participating in the course due to the level of work involved in the customer discovery requirements to be conducted outside of the classroom. Auditors must be active class participants and are expected to contribute to all the team submissions and will receive team-based feedback.

COURSE REQUIREMENTS & EXPECTATIONS

- Double impact venture idea formulated and team selected. There will be at least one course information session with opportunities for individuals to join/form teams prior to the course application deadlines. Pivots nurtured as needed.
- Validation and venture support solicited from cross-campus resources (another school, global center, alumni base), another university, a corporate entity, and a public entity.
- A minimum of 10 validating interviews required weekly per team. More encouraged and celebrated. All team members are expected to complete a minimum of 2-3 interviews per week. Larger teams (5-6) have a higher expected number of interviews than smaller teams (3-4).
- Pre-class assignments completed and presentations submitted one day prior to each class session via Canvas. Late submissions will be docked 20% and will not be accepted if more than a day late.
- Active class participation to communicate and advance team traction, to assist fellow teams, and to contribute individual and team insight to enrich course lessons.
DELIVERABLES

• Weekly team presentations in PowerPoint covering various elements of the business model, its validation, and traction.
• Weekly brief summaries of individual contributions toward customer discovery, business model validation, MVP/prototype creation and testing, market sizing/competitive analysis, team slides and presentations, team building, and networking.
• MVP/prototype to validate value proposition. (No coding required.)
• An impressive demo day ready pitch deck and one page summary for investors.
• An enthusiastic and productive contribution to the course startup ecosystem.

COURSE MATERIALS

Required

• Constable, Giff. Talking to Humans. 2014. (Free Edition for Non-Profits & Educational Organizations)
• Constable, Giff. Testing with Humans. 2018. (Free Edition for Non-Profits & Educational Organizations)
• Additional readings will be posted weekly on Canvas.

Optional


CONNECTION TO THE CORE

No prerequisites, but relevant core MBA courses include:

• Corporate Finance. Pro formas and financial statement evaluation.
• Strategic Formulation. Competitive analysis.
• Marketing. Assessing markets, acquiring customers, and determining customer LTV:CAC.
• Business Analytics. Data analysis of business model testing.
• Operations Management. Supply chain optimization.

COURSE ROADMAP/SCHEDULE

<table>
<thead>
<tr>
<th>Session</th>
<th>Topic(s)</th>
<th>Required Preparation (Prior to Class)</th>
<th>Assignments Due (Submit on Canvas 24 hours prior to each session)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Weeks Prior: Pre-Term Information Sessions for Team Formation &amp; Slack Communication</td>
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<tr>
<td>Module 1: Customer Discovery &amp; Validation</td>
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</table>
| 1 | Addressing Problems  
• Introduction  
• Assessing the Business Model  
• Workshop: Customer | Justify Your Venture  
• State the problem(s) to solve  
• Identify # of people | 4 Team Slides  
• Introduction  
• Team Bios  
• Business Model Canvas |
<table>
<thead>
<tr>
<th>Discovery &amp; Validation</th>
<th>Customer Profiling</th>
<th>Prioritizing &amp; Testing</th>
<th>Business Model Assumptions</th>
<th>Designing an MVP</th>
<th>Measuring Impact (SDGs)</th>
<th>Deciding When to Pivot</th>
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<tbody>
<tr>
<td>Reflecting on the Founders’ Emotional Journey</td>
<td>Guest Speaker</td>
<td>experiencing these pain points who will pay for a solution</td>
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</table>

- Quantify the problem
- Identify metrics to measure solution impact
- Articulate your solution/value proposition
- Find at least one person at a different school on campus doing work in this area to help validate business model
- Interview 10+ people per team to validate value proposition

*Background Reading/Videos (Will be posted on Canvas)*

- Value Proposition Canvas
  List of Customer/Stakeholders Interviewed

- Key Business Model Assumptions to Test and Proposed Experiments
  (SVI Team Guide: Exhibit 3b P.6)

- Individual Contribution Summary
  1 paragraph max (50-75w)

<table>
<thead>
<tr>
<th>2</th>
<th>Defining &amp; Testing Solutions</th>
<th>Customer Discovery &amp; Market Estimation</th>
<th>9 Team Slides</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Workshop: Pitching like a Rock Star</td>
<td>Map out customer profiles and journey</td>
<td>(7 new, 2 updated/carry overs)</td>
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<tr>
<td></td>
<td>Sizing the Market Opportunity</td>
<td>Choose experiments to validate value proposition and journey</td>
<td>• Intro (# of interviews for the week in upper right hand corner/total #)</td>
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<tr>
<td></td>
<td>Guest Speaker</td>
<td>Interview a minimum of 10 people per team</td>
<td>• Weekly Insights (what you thought, what you did, what you learned, what you will do next)</td>
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<td>Research market drivers/trends and estimate TAM/SAM/SOM</td>
<td>• Problem (definition &amp; quantification)</td>
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<td></td>
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<td><em>Background Reading/Videos (Will be posted on Canvas)</em></td>
<td>• Solution Slides (value proposition with impact quantified where possible &amp; how solution will work)</td>
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</tbody>
</table>

- Competition
- Team Bios
- Emotional Journey/Traction

*List of Customer/Stakeholders Interviewed*

*Individual Contribution Summary*
| Module 2: Refining the Business Model, Creating Pro Formas, Performance Dashboards, and Pitch Prep (Validation Continues) |
|---|---|
| **3** | **Marketing Solutions**  
- Formulating a Go To Market Strategy  
- Workshop: Customer Acquisition with Social and Digital Media  
- Guest Speaker  
  
**MVP & Business Model Validation**  
- Create/Refine and Validate MVP (Brochure, landing page mockup, PowerPoint, wireframe, etc.)  
- Refine and test revenue model  
- Interview minimum 10 people to validate value proposition, channel strategy, relationship approach  
  
*Background Reading/Videos (Will be posted on Canvas)* |
| **12 Team Slides**  
(5 new, 7 updated/carry overs)  
- Intro (# of IVs for week/total #)  
- Weekly Insights  
- Problem (definition & quantification)  
- Solution Slides (value prop & how it works)  
- MVP  
- Market Opportunity (TAM, SAM, SOM, trends)  
- Competition  
- Team Bios  
- Business Model (source/type of revenue streams)  
- Go to Market Strategy  
- Emotional Journey/Traction  
  
- List of Customer/Stakeholders Interviewed  
- Draft of Customer Persona(s)  
- Draft of Customer Journey  
- Individual Contribution Summary  
  
- 1 paragraph max (50-75w) |
| **4** | **Funding Solutions**  
- Workshop: Startup Pro Formas, Drivers, and Metrics That Matter  
- Guest Speaker  
  
**Formulate Go To Market Strategy, Confirm Metrics, Draft Pro Formas, Keep Validating, and Boost Network**  
- Adjust MVP as needed  
- Map out the network of stakeholders in your marketplace  
- Outline a go to market  |
| **13 Team Slides**  
(3 new, 10 updated/carry overs)  
- Intro (# of IVs for week/total #)  
- Weekly Insights  
- Problem (definition & quantification)  
- Solution Slides (value prop |
<p>| 5 | <strong>Measuring Progress</strong> | <strong>Refine Performance Metrics and Pro Formas, Keep Validating and Expanding Network</strong> | <strong>14 Team Slides</strong> |
|   | • Reviewing Traction and Lessons Learned | • Adjust MVP as needed | • Intro (# of IVs for week/total #) |
|   | • Workshop: Measuring Progress (KPIs, OKRs, &amp; Data Integrations) | • Refine metrics, pro formas, and clean up dashboards | • Weekly Insights |
|   | | • Prepare one-page sample investor relations letter | • Problem (definition &amp; quantification) |
|   | | • Keep growing your network | • Solution Slides (value prop &amp; how it works) |
|   | | • Interview a minimum of 10 people to continue validating | • MVP |
|   | | <em>Background Reading/Videos (Will be posted on Canvas)</em> | • Market Opportunity (TAM, SAM, SOM, trends) |
|   | | | • Competition |
|   | | | • Team Bios |
|   | | | • Business Model (source/type of revenue streams) |
|   | | | • Stakeholder Network Map |
|   | | | • Go to Market Strategy |
|   | | | • Projected Financials |</p>
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<tr>
<th></th>
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<th>(dashboards and graphics, not spreadsheets)</th>
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<tr>
<td></td>
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<td>• <em>Emotional Journey/Traction</em></td>
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<td>List of Customer/Stakeholders Interviewed</td>
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<tr>
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<td>Pro Forma Draft 2 (Spreadsheets- Assumptions &amp; Drivers Clearly Featured)</td>
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<td>Individual Contribution Summary (50-75w)</td>
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<tr>
<td>6</td>
<td>Pitching the Venture</td>
<td>Get Fired Up for Demo Day!</td>
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<tr>
<td></td>
<td>• Demo Day with Investors</td>
<td>• Adjust your MVP as necessary</td>
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<td></td>
<td>• Awarding of Prizes</td>
<td>• Prepare Course Reflection Slide (Summary of Weekly Insights)</td>
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<td></td>
<td>• Workshop: Pricing and Identifying Stakeholders That Will Pay (Tentative)</td>
<td>• Prepare 3m recording of pitch with pitch deck (Each person on team should present slides.)</td>
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<td>• Complete final team Airtable form with attachments (3m recording and pitch deck)</td>
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<td>• Interview 10 people</td>
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<td>• Keep growing and tallying your expanding network</td>
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<td>Please note:</td>
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<td><strong>Demo Day deliverables are due Friday, April 22 at 6pm</strong> to be eligible for Round 1 and 2 judging by investors.</td>
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<td>Individual Contribution Summary (3-4 paragraphs max (200-250w))</td>
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</table>
GRADING

If you put in the work, I will make every effort to ensure you will succeed in this class.

<table>
<thead>
<tr>
<th>Task</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class participation, assistance to your team and others in the class</td>
<td>22.5%</td>
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<tr>
<td>Completion of and effort in team assignments</td>
<td>22.5%</td>
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<tr>
<td>Customer and business model validation interviews that you conduct or participate in</td>
<td>20%</td>
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<tr>
<td>Traction, research, and use of cross-campus and external resources</td>
<td>10%</td>
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<tr>
<td>Quality of your participation and deliverable at Demo Day</td>
<td>25%</td>
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EVALUATION OF ASSIGNMENTS & PRESENTATIONS

Slides and presentations will be evaluated as a group effort. Each team member will be expected to present individual slides to the class and/or field Q&A. Class participation, weekly individual contribution summaries with examples, and peer feedback will be used to calibrate individual effort.

TEAM PERFORMANCE TRACKING

- Most traction from prior session (weekly observation).
- Most validation interviews from prior session (weekly tally with team award at end).
- Best ecosystem builder (best inter-team supporter, term end, class vote).
- Best startup hustle (term end, class vote).
- Best comeback from an epic fail or external hurdle (term end, class vote).

CLASSROOM NORMS AND EXPECTATIONS

Present, Prepared, and Collaborating.

Participating individuals are expected to be visible contributors to their own team and peer teams. We are creating an innovation community in this course. High levels of collaboration, leveraging cross-campus resources, and networking is required. Any virtual attendance of class sessions requires your camera to be on at all times except for breaks. After this course ends, you are welcome to connect to me regarding assisting or mentoring in future iterations of this incubator course. We will create an open culture for people to work on their startups.
COLUMBIA’S ATTENDANCE POLICY
Students are required to attend each class in person. Students should reach out to the instructor or CA regarding excused absences (for religious observances; personal, medical, and family emergencies; military service; court appearances such as jury duty). Unexcused absences will affect your course grade.

For any on-line sessions: this course may use Poll Everywhere for in-class student engagement and to confirm your attendance and participation grade.

INCLUSION, ACCOMMODATIONS, AND SUPPORT FOR STUDENTS
At Columbia Business School, we believe that diversity strengthens any community and business model and brings it greater success. Columbia Business School is committed to providing all students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, age, or ability.

Columbia Business School will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Columbia University’s Office of Disability Services for information about registration. Students seeking accommodation in the classroom may obtain information on the services offered by Columbia University’s Office of Disability Services online at www.health.columbia.edu/docs/services/ods/index.html or by contacting (212) 854-2388.

Columbia Business School is committed to maintaining a safe environment for students, staff and faculty. Because of this commitment and because of federal and state regulations, we must advise you that if you tell any of your instructors about sexual harassment or gender-based misconduct involving a member of the campus community, your instructor is required to report this information to a Title IX Coordinator. They will treat this information as private, but will need to follow up with you and possibly look into the matter. Counseling and Psychological Services, the Office of the University Chaplain, and the Ombuds Office for Gender-Based Misconduct are confidential resources available for students, staff and faculty. “Gender-based misconduct” includes sexual assault, stalking, sexual harassment, dating violence, domestic violence, sexual exploitation, and gender-based harassment. For more information, see http://sexualrespect.columbia.edu/gender-based-misconduct-policy-students.