

MIT GSL Rwanda

Partnership between MIT & FabLab
Summer 2018, Kigali, Rwanda



Global Startup Labs Overview

GSL is designed to teach students the skills necessary for starting a mobile tech startup. This is not a typical class - it's an intensive boot-camp where students will work in teams to develop and ultimately launch a mobile-app startup business. The course ends with a pitch day - when your team will pitch your startup and prototype to potential investors. The expectation is that you and your team will continue developing your startup idea after this course ends.

Global Startup Labs History

GSL is a program founded by MIT to cultivate young technology entrepreneurs all over the world. We develop curriculum materials, software technologies, platforms, and networks that enable students to innovate in the area of information and communication technologies. The course is offered at no cost to students.

Since 2000, MIT Global Startup Labs has sent over 150 MIT instructors to teach over 2400 students in 62 programs in 17 countries, resulting in the creation of businesses and the addition of course offerings at our partner universities. Over 75% of the participants continue their startups after the program with over 30 startups still in operation since its inception. In Rwanda, Clarisse Iribagiza, nominated "Forbes Africa's 30 Under 30" for 2015, started Hehe Ltd. from this program.

Schedule

This is a 7-week program, running from June 18 - August 3. Class will be held Mondays - Fridays from 9am to 5pm, and are mandatory to attend. We will hold some evening or weekend sessions for networking; while attendance is optional, we highly encourage you to attend.

Location

The class will be held primarily at Telecom House, 6th floor, 8 KG 7 Ave, Kigali. However, some classes may be held off-campus. More details to come later in the course.

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Class Curriculum

Content

The curriculum will be modeled after many incubator courses at MIT, and it will include three major areas, which are the key ingredients to launching a successful tech venture:

1. Entrepreneurship & Business Skills
2. Technical Skills
3. Soft Skills (Communication, Leadership, Teamwork, etc.)

Startup Teams

Students will be grouped into teams of 3-4 students, and these teams will work throughout the course to form and launch their tech startup. We will often dedicate time during the class to group work sessions and group meetings with the instructors. During the course, you will work as a team to develop a startup business idea for a web application. You will build a prototype of the web app. You will pitch this idea during the culminating event of the course - pitch day. Winning teams may receive prizes and/or funding to move forward with their idea.

Additional Activities

In addition, we will be inviting guest lectures to speak during the class to share their experiences with you. We intend to schedule one or two guest lectures per week and spend time outside the classroom, for company tours and team building offsites. We will inform you as more details are confirmed.

Teaching Style

The MIT style of learning is "learning by doing", and GSL is based on this philosophy. GSL is a hands-on workshop and bootcamp, where we will serve as your mentors (not lecturers!). We will introduce topics through an interactive lecture. No more than 10-15% of the course will consist of instructor lecturing. The remainder of the time is dedicated to hands-on activities, tutorials, group-work, exercises, etc. You will grasp the material best by taking initiative, so we highly encourage you to ask questions, engage with your peers, and review relevant resources. We may even ask you to present material to the class, as an instructor! We realize you may not be familiar with this teaching style, but we ask you to keep an open mind and participate to the best of your ability.

Materials

Students should come prepared to learn! Bring writing materials, a notebook, and a laptop if you own one. Otherwise we will have desktops available for each team to use for their projects. If you have a smartphone or tablet be sure to bring that as well, as we will be

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learning to develop mobile friendly web applications.

Class Participants

Students

Congratulations! You and your classmates (30 students total) have been carefully selected among an applicant pool of many candidates. You are a group of students from diverse backgrounds and experiences. Your individual teams will be composed of students from various disciplines - some business students paired with some technical students. We will be teaching all of you the same content at the same time - it's important that everyone be aware of these topics and develop skills in all these areas as founding members typically wear multiple hats in startups. Ultimately, you will decide as a team how to divide tasks among team members.

Mentors

We will also be inviting some people to join our class as "mentors" rather than student participants. These are individuals who have valuable business and/or technical experience and will serve as mentors to student startup teams. They have more flexibility regarding their participation in the class, as they may or may not choose to attend all class sessions. Class mentors may include professionals, university lecturers, and/or graduate students.

Class Community

Because you are a group of students from diverse backgrounds and experiences, there is much to be learned from each other. This will be the focus of the culture within the course: a community that shares knowledge with each, and takes the initiative to work together. This includes collaboration among teams, as you will be expected to provide constructive criticism of your peers' work to learn from each other's successes and failures. The more we work together the more successful each individual project will be! We expect you to take an active role in supporting and fostering the class community.

Language

The course will be conducted in English. If you do not understand something, please ASK! You are welcome to speak in other languages with your fellow students. We don't want language to be a barrier to you as you launch your startup venture!

GSL Rwanda 2018 - Your Instructors

This is the first time in 7 years (and 3rd overall) GSL is being offered in Rwanda and we're excited to be here! We are working in partnership with FabLab and Rwanda ICT to offer this course this year..

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Your instructors

This course will be taught by MIT graduate level students who have both startup and corporate working experiences prior to MIT. MIT professors will not be involved in the instruction of this course. The entire team can be reached at gslrwanda2018@mit.edu

Tosin Bosede (tbosede@mit.edu)

Entrepreneurship Lead

Tosin is an MBA student at MIT Sloan School of Management. Prior to MIT, she started her career in Silicon Valley at Twitter and LinkedIn, where she worked with sales, marketing, product, and engineering teams as an operations analyst. While at MIT, Tosin has explored inclusive innovation and sustainability as a means of economic empowerment. She completed her summer internship at Microsoft, where she worked on bringing a new product to market. She is a digital product and design maven who is dedicated to developing technology that improves physical life. Tosin holds a bachelor's degree in Economics and enjoys road trips, singing, and exploring new cities.

Wataru Doita (wdoita@mit.edu)

Entrepreneurship Lead

Wataru is an MBA student at MIT Sloan School of Management and holds a bachelor's degree in law. Before coming to MIT, he worked as an international business development manager in a Japanese conglomerate and made a lot of business trips around the world such as Russia, Cambodia, and Portugal. In MIT, Wataru enjoys learning entrepreneurship and data analysis, aiming at founding his own company while he is in the school. He had been a weekend coach for a college football club in Japan for three and half years and interested in education. Wataru loves watching/playing sports (especially football), biking, and traveling.

Kosi Aroh (kosiaroh@mit.edu)

Technical Lead

Kosi is a PhD student in Chemical Engineering at MIT. He holds bachelor degrees in chemical engineering and computer science. Kosi has had 2 years of experience as a Ruby on Rails web application programmer for a DC startup. He is interested in how he can use his technical skills in addressing challenges in Nigeria through new enterprises. Outside of school his interests include playing sports (soccer, tennis, basketball), podcasting, and reading/listening books about history and the economy.

Jannah Haque (jhaque@mit.edu)

Technical Assistant

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Jannah is an undergraduate student studying Computer Science, Data Science, and Economics at MIT. She's also pursuing a minor in Political Science. Jannah has worked as a Marketing and Data Analyst for Embr Labs (an MIT founded start-up based in Somerville) for 6 months now. She was also a participant in a similar start-up accelerator program known as StartMIT in January. She is interested in melding technology and humanities in the business and political spheres. Outside of school, she plays on the field hockey team at MIT, is affiliated with Alpha Phi sorority, records a podcast, and loves writing.

Participation & Student Expectations

This is an intensive bootcamp. Students must commit to attending every day from morning until evening. If you must miss class, you must speak with the instructors at least two days in advance. Absences are highly discouraged and will be considered on a case-by-case-basis. Being able to attend this program is a privilege, and it is in your best interest to come every day with a positive attitude, readiness to learn, and willingness to engage. There are no grades and no exams. Students are expected to:

- Arrive on-time (or early!)
- Listen attentively
- Ask questions!!! We won't know if you're understanding the topics until you ask questions
- Complete in-class assignments
- Help other students
- Learn on your own
- Study/Work at home and on the weekends
- Present to the whole class on learned material when asked

If we feel you are not participating as an active member of the class, we will speak with you one-on-one. If you do not change your behavior, we will ask you to leave the class. We want each of you to succeed, and we will do our best to ensure the best learning environment possible. Please do your part!

Course Website

The course has a website which we will be using to post materials and information. (<http://gsl.mit.edu/program/rwanda-summer-2018/>)

Tentative Course Schedule

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Week	Entrepreneurship Skills	Technical Skills	Soft Skills
Week 1 Jun 18 - 22	Milestone: Who is your customer? <i>Beachhead Market, TAM, Interviewing, End User Profile, and Persona defined</i> <ul style="list-style-type: none"> Introduce the 24 Steps of Disciplined Entrepreneurship Brainstorming & Ideation Market segmentation Identify Beachhead Market Define Total addressable Market size Define end user profile & persona Define the full life cycle use case 	<ul style="list-style-type: none"> Skills assessment Overview of course and topics that will be covered Introduction to programming through JavaScript <ul style="list-style-type: none"> Variables Functions Loops Control structures Data structures Objects Web development process <ul style="list-style-type: none"> HTML, CSS, JS HTTP concepts, Server-Client relationship Responsive design Model-View-Control framework Introduction to ReactJS Milestone: Comprehensive understanding of programming basics	<ul style="list-style-type: none"> Introduction & Program norms and expectations Icebreakers Team Formation Interviewing / Listening / PMR → G/S
Week 2 Jun 25 - 29	Milestone: What you can do for your customer and acquiring them as a customer <i>Core, Value Prop, Functional Requirements, DMU, DMP, Sales Process, are defined</i> <ul style="list-style-type: none"> Define high level specifications from usage perspective Define the quantified value proposition Define your core & competitive positioning Decision making unit & sales process 	<ul style="list-style-type: none"> Basics of circuit design App ideation Reinforcement on necessary concepts Milestone: App Idea Defined	<ul style="list-style-type: none"> Passion, purpose, and Impact → G/S Design Thinking Sales & marketing → G/S
Week 3 Jul 2 - 6	Milestone: How to make money off of and design/build your product <i>Business Model, LTV, COCA, Pricing, MVBP, Testing Assumptions (optional)</i> <ul style="list-style-type: none"> Business Model Pricing Framework 	<ul style="list-style-type: none"> Meteor structure introduction Web app tutorial using Meteor Databases Paper prototyping More circuit designs/hardware concepts 	<ul style="list-style-type: none"> Finances & Funding - → G/S Physical & mental well-being → G/S

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	<ul style="list-style-type: none"> • Lifetime Value of a customer • COCA • Minimum Viable Business Product (MVBP) 		
Week 4 <i>Jul 9 - 13</i>	Milestone: How to scale your business <ul style="list-style-type: none"> • Product Plan & Roadmap • TAM size for following-on markets 	<ul style="list-style-type: none"> • Time to work on MVP prototype • Interface design <ul style="list-style-type: none"> ◦ Analyzing UIs ◦ User Centered design ◦ Usability testing ◦ Data visualization ◦ Logo design ◦ UI/UX ◦ Basic wireframing tools • Introduction to version control with Git • Introduce hosting on Heroku Milestone: First version of MVP after 24hr Hack-a-thon	<ul style="list-style-type: none"> • Communication & public speaking skills • Presentation development skills • Storytelling → G/S
Week 5 <i>Jul 16 - 20</i>	<ul style="list-style-type: none"> • Start working on pitch presentation • Office Hours Milestone: 1st Draft pitch decks	<ul style="list-style-type: none"> • Time to work on MVP prototype • Agile software development process • Introduce basic of CSS bundles • Code reviews of first MVP • Expanding application to Android and iOS 	<ul style="list-style-type: none"> • Global Entrepreneurship landscape → G/S • Industry specific info - FinTech/EdTech/Go vTech → G/S • Peer Feedback Sessions
Week 6 <i>Jul 23 - 25</i>	<ul style="list-style-type: none"> • Start practicing pitching Milestone: 2nd Draft pitch decks	<ul style="list-style-type: none"> • Reinforce any necessary concepts • Discuss CSS techniques for better designs • Further Android and iOS applications • Interesting topics Milestone: Close to final version of MVP after 2nd 8hr Hack-a-thon	<ul style="list-style-type: none"> • Running a company → G/S • Legal considerations → G/S
Week 7 <i>Jul 30 - Aug 3</i>	<ul style="list-style-type: none"> • Continue practicing pitching • Finalize pitch decks for demo day! Milestone: Final Pitches	<ul style="list-style-type: none"> • Finalize MVP for the demo day • More Interesting topics • Test run of MVP and demo day presentations 	