Faculty-Led Education Abroad Program (FLEAP) Full Proposal (Phase 2)

Thank you for completing our FLEAP Interest Form (Phase 1)! Now, please complete Phase 2 to submit your full proposal for a UCR faculty-led education abroad program. It will be reviewed by the UCR International Travel Policy Committee, which includes the Vice Provost of International Affairs, Risk Management, Summer Sessions, the UCR Education Abroad Faculty Director, and UCR Education Abroad Office.

Our review will evaluate the curriculum, its relevance to the proposed program site(s), and your expertise in the subject matter, and/or location(s). Student interests, costs, support from your department, and potential for long-term sustainability will also be factors. We will keep in mind existing Education Abroad programs, locations and subject areas to ensure diversity and breadth of options.

Please Note: Additional information may be required prior to the delivery of a final decision; we may not accept every proposal; or, we may ask that you run your proposed program at a later date. Approved proposals will commence to Phase 3, where we will work with faculty and Third-Party Providers (TPP) to build their FLEAP. **Questions?** Please see the FLEAP FAQs and/or email educationabroad@ucr.edu.

For best practices and additional information on faculty-led education abroad programs, please refer to the Forum on Education Abroad Standards.

First Name	Name 1
Last Name	Name 1
Email	name1@ucr.edu
Mobile Phone	(555) 555-5555

First Name	Name 2
Last Name	Name 2
Email	name2@ucr.edu
Mobile Phone	(555) 555-5555

Academic Appointment and Department Lecturer

Name of Academic Department Chair Name

Has your department chair approved this program? ___ yes ___ no _X_ approval pending

Proposed Program Title Startup Bootcamp: An International Perspective

First course title and number (and any approved cross-listings)
CS 110 - Web Development
Second course title and number (and any approved cross-listings)

CS 175 - Entrepreneurship in Computing

Please Note: **Both courses must be listed in the UCR General Catalog.**

Select desired UCR Summer Session term:

___ Session A: Late June to late July
_X_ Session B: Late July to early September
___ Session OTHER - Click or tap here to enter text.

Location 1 (City, Country): Tokyo, Japan
Location 2 (City, Country): —
Location 3 (City, Country): —
Location 4 (City, Country): —

Do you need classroom space? If you need classroom space, **list the equipment needed** (Ex. whiteboards, smartboards, projectors, etc.)

Yes, the only required equipment is a projector

If you need a classroom space, **list days of the week needed** (Ex. MWF / M-Th)

We are flexible on the exact days but would require three days a week and ideally Monday, Tuesday, and Thursday if possible.

If you need a classroom space, **list hours needed and timeframe** (Ex. 4 hours per day, 8am-12pm)

We are flexible on the exact times but would require four hours a day and ideally 10 AM - 12 PM and 2 PM - 4 PM

Do you have any other classroom needs or requests? If yes, please provide more details.

None

Do you plan to include a Teaching Assistant (TA)? If yes, please provide more details, and explain the rationale. A TA is optional, and will depend on the number of students. While a TA is allowed, it may increase costs to students' program fees. In working with a Third-Party Program provider (e.g., CAPA, Worldstrides), many provide on-site ground support and assistance and educational services.

We do not require a TA as this program has two instructors

Do you plan to take students on excursions? If yes, please provide more details, such as if the excursions require a fee, entrance type/level, and/or if you need guides.

- Tokyo Skytree: The tallest building in Japan with two observation decks and amazing views of the city
    - Combo Ticket (Tembo Galleria + Tembo Deck): ~$22.52/person
    - https://www.tokyo-skytree.jp/en/ticket/individual/
- National Museum of Emerging Science and Innovation (Miraikan): Recently opened museum dedicated to cutting edge research in Japan
    - Group Admission: ~$4.17/person
    - https://www.miraikan.jst.go.jp/en/visit/group/

- Senso-ji: Gate, temple, and five story pagoda in the heart of Tokyo with a shopping promenade
    - No additional cost
- Origami Kaikan: Museum dedicated to origami that has a paper dying studio on site
    - Book a private lesson on origami, ideally focused on design, unknown price
    - https://www.origamikaikan.co.jp/lp/english_guide.html

Additionally we usually include an unlimited public transit pass with our programs to make it easier for students to do their own sightseeing
    - 1 month pass: ~$144.27/person
    - https://www.tokyometro.jp/lang_en/ticket/types/pass/all/index.html

Are you open to suggestions of other excursions?

Yes

Program Narrative

1. **Program Description:** Define the program in terms of subject matter, learning outcomes, instructional models and the UCR courses to be taught on-site.

    This program will integrate two upper division courses Web Development (CS110) and Entrepreneurship in Computing (CS175) to create a program introducing students to what it's like to create or work at an early stage startup. Web Development (CS110) is primarily concerned with methods to create well crafted, tested, and documented web sites and services that can be easily extended and scaled to meet future needs. The students will learn about everything necessary to create and deploy modern web sites and services including tools, frameworks, patterns, and methods. Additionally they learn industry standard project management tools such as Github and Kanban boards to track their groups progress through feature identification and specification, development, testing and deployment as well as bug identification, tracking, and patching.

    Entrepreneurship in Computing (CS175) focuses on teaching the skills necessary to create a technology business such as ideation strategies, business model canvas generation, customer discovery, market validation, development of a minimum viable product (MVP) and product-market validation. The business side of this course teaches the students how to use customer discovery to identify their customers and the features that they truly need so the team is able to develop a product that solves a problem for their target customers. This process includes speaking with potential customers, “failing” rapidly and learning from those “failures” to develop a better product. These skills are essential for any good manager as well as any good engineer. In addition to the business side of the course, the students form teams and develop an MVP, as identified by their customer discovery process. The final deliverable of the course is a mock investor pitch and a demo of their MVP and the associated documentation.

    The program proposed here will retain some of the lab components of CS110, but will focus primarily on an open ended group project that will be proposed by the students to satisfy both the CS110 assignments and the CS175 MVP project. The students will form their own “startup” groups and propose a web based system or service prior to arriving in the country and will then build an MVP for their proposed business. They will learn how to formulate user stories to describe/specify features during the first few days abroad, and utilize these skills to set up

milestones for their project. This integration of the two courses will reinforce the lessons from CS110 as students will see these methods applied to their own real-life project that has "customers" and a business prospect. While it will still be a "smaller project" as far as real world web systems is concerned, because it is an MVP with a real-world application, the students will be able to see how the foundation in modern web development and software practices sets a framework for maintainable and extensible systems.

In addition to the integration of the two courses discussed above, teaching this course abroad provides additional opportunities to enhance student learning experiences. While both Riverside as a city and the University have been growing their entrepreneurial ecosystem it has not yet reached the level that is available in a large international hub like Tokyo. Additionally, Japan has a history of being at the forefront of technological innovations and has cutting edge research in a number of fields.

Finally, we hope to partner with the entrepreneurial ecosystems both abroad in Tokyo and locally in Riverside. In Tokyo we will have speakers from the local startup ecosystem give talks about their own startup journey. Back in Riverside we hope to partner with local resources such as UCR's own ExCITE incubator, to provide students with the opportunity to continue with their projects after the program has ended if they choose to or to simply continue their journey in the exciting world of startups.

Instructor expertise:
Name 1 graduated in 2016 with his Ph.D. in Computer Science and has instructed more than 40 courses at UC Riverside. Additionally, he has participated in the NSF I-Corps program, a national entrepreneurship training program for Ph.D. students.

Name 2 graduated in 2018 with his Ph.D. in Computer Science and was an associate instructor or lecturer there for 4 years teaching a number of courses . He is now a developer team lead working in industry, and has worked at companies such as Google, Intel, and Bird and currently works at a small technology startup.

Both Name 1 and Name 2 led a similar study abroad program in London during summer 2019 and are scheduled to run it in Paris during summer 2022.

2. **Course Selection:** You will offer two courses, 8 units total; they can be either both lower division (enrollment minimum = 12) or upper division (enrollment minimum = 8), or a mix. See the UCR Catalog.

   CS110 Web Development (upper division)
   Catalog description: Provides an introduction to distributed systems, with a focus on web development techniques and the considerations to application scalability, security, reliability, and redundancy. Provides a holistic investigation of technologies used for both back-end and front-end development. This course will delve into some of the core front-end languages and frameworks (HTML/CSS/JavaScript/React/Redux),as well as the underlying technologies that enable web applications (HTTP, URI, JSON).

   CS175 Entrepreneurship in Computing (upper division)

Catalog description: Introduces business and technological concepts to create companies based on computer technology. Covers technical aspects of real world IT projects. Includes developing software and services; understanding user requirements; designating usable systems; technological assessment. Also covers market analysis and strategy; legal and intellectual property, ethics and communication business issues; financial analysis.

3. **Location Rationale:** What advantages (academic, professional, experiential) come from teaching these courses at the selected location?
   According to a 2021 report on the Tokyo start-up Ecosystem, “Tokyo is the largest science and technology hub in Japan; is its most global city; and has the highest population and concentration of firms, universities, and other assets that are key to innovation. It also has the largest concentration of start-ups and Venture Capital (VC) investment in the country, representing 80 percent of start-up funding.“ While the report categorizes the city as having an "advanced" ecosystem it also draws a number of differences between Tokyo and other startup hubs, primarily around their ecosystem being lead by university and corporate research and investment rather than the traditional VC and accelerator models that we typically see in United States hubs such as San Francisco and New York. Being able to compare and contrast the startup ecosystem in Japan versus the United States as well as how differences in cultures, demographics, etc. change the way products are designed, built, and marketed, with the aid of in-country speakers and experts will create a one of a kind program to not only prepare students for the rigors of a startup, but also how to think about scale those ideas internationally.

4. **Local Expertise:** Describe your experience living, working, or traveling in the location, as well as fluency in any local languages, if any.

   Both [names] have traveled to Japan multiple times and are very comfortable with everything needed for daily life there such as usage of public transportation, dealing with currency, buying and cooking food, etc. Because Tokyo is the capital of Japan and a hub for business and education many people speak English, so we do not believe that fluency in Japanese is a requirement for this course.

5. **Guest Lecturers:** List in-country faculty/guest speakers, and aspects of the host culture and environment that will be woven into the program and courses. Do you intend to provide an honorarium?
   With the assistance of our TPP partner we plan to approach various startup founders and teams to speak about their journey into entrepreneurship as well as best practices and skills necessary for the modern startup team (tech startup or otherwise). Students from the 2019 London program have stated that this was one of the highlights of their studies during that program. As startup founders and teams do not have their schedules finalized a year in advance this typically requires us to reach out to a large number of possible speakers and be adaptable when it comes to scheduling their talks, however because of this we do not seek speakers who require a fee and will not provide an honorarium.

6. **Other Logistical Arrangements:** Please describe other logistical arrangements, including your specific housing needs/accommodations, if any.

This program does not require any additional logistical arrangements outside of those listed in other sections. We are quite flexible on housing and have stayed in co-living spaces with other startup and remote works during the London 2019 program and are staying at international student housing for the Paris 2022 program. Ideally this housing will be located close to a transit hub so students can maximize the use of their transit pass, however as we choose locations with large public transit systems this is not typically an issue.

7. **Student Enrollment and Program Marketing**: Identify the target audience for your program, considering the number of students who need the course for major/minor requirements, if the course will satisfy breadth requirements, and how many students generally take the course on campus. If possible, provide evidence of student interest.
   The courses chosen for this program were specifically chosen to be of high interest to students and have a minimum number of pre-requisites. Choosing these courses allows us to maximize the number of possible students who can attend this program since we can target even students completing their first year. Additionally, we've had success with this program in both London in 2019 and Paris in 2022 and even saw fairly healthy interest in this program in the offerings that were canceled due to COVID.

8. **Recruitment**: Indicate your availability to recruit students via information sessions, class visits, tabling, and other forms of recruitment, which typically happens fall and winter quarters. Please note: FLEAP is "open enrollment"
   [Names] are not available for on campus events as neither of us live in Riverside. However we are very available for online or hybrid events, and typically hold a number of Q&A sessions with various student organizations as part of our recruitment process.

9. **Diversity, Equity & Inclusion (DEI)**: Please share your ideas on how you will incorporate DEI into your curriculum and outreach strategies. Please see NAFSA Resources for Supporting Diversity and Inclusion in Education Abroad, Forum on Education Abroad Standards, and Forum's "Responsible Education Abroad: Best Practices for Health, Safety, and Security."

   Our primary recruiting methods are via student organizations related to computer science, with special focus on those organizations for underrepresented minorities in tech such as Women in Computing (WinC) and the Society for Hispanic Professional Engineers (SHPE). Both our London program in 2019 and our Paris program in 2022 were able to recruit more female participants as a percentage than the computer science program graduated in 2020 (14%), which is one of the primary lagging demographics in the major. Additionally, our course curriculum for both CS110 and CS175 include an ethical component focusing on modern ethical questions in computing such as the the effects of automation, pitfalls with machine learning, digital security and intrusion, concerns around international governance, and many others.

Course Syllabi – Please attach sample(s) or working draft(s) of course syllabi for each course, and include excursion ideas with a day-by-day breakdown, if possible, and HOW they complement the UCR coursework.