The Lean Launchpad: How to Build a Startup
Spring 2019
SBS S218. Tuesday 1-3:50pm

Instructor Information

**Faculty**: Anurag Purwar, Ph.D  
Office: 169 Light Engineering  
Office Hours: Wed 2-5 pm  
Phone: (631) 632-8542  
Email: anurag.purwar@stonybrook.edu

**Faculty**: Ann-Marie Scheidt, Ph.D  
Office: 122 CEWIT, R&D Park  
Office Hours: By appointment  
Phone: (631) 216-7605  
Email: annmarie.scheidt@stonybrook.edu

**Faculty**: Robert Harrison, MBA  
Office: Research and Support Services (Building 17), Room 146, R&D Park  
Office Hours: By appointment  
Phone: (631) 632-9070  
Email: robert.b.harrison@stonybrook.edu

Course Learning Outcomes

This course teaches students how to think about all the parts of creating a new business, not just the new product or service, because a business startup engages in searching for a business model; executing the business plan takes place after the business model has been validated. It introduces students to management tools for entrepreneurs. Students will work in teams – a fundamental part of their learning experience) to map their assumptions (lay out their business model on the Business Model Canvas). Each week they learn from testing these hypotheses with potential customers and partners “outside the building” (Customer Development), using an iterative and incremental development methodology (Agile Development) to develop a Minimum Viable Product or Service (a prototype, or a wireframe if web-based, identifying users, distribution channels, key activities and partners, costs and revenues.

The goal isn’t to start a business, and the search for a business model doesn’t have to end in finding a viable one: it is to master the hypothesis-driven methodology. The goal is to accumulate sufficient evidence through real-world investigations to support an informed decision: at the end of the process experienced in the course, “No go” decisions and “Go” decisions are equally valid outcomes as long as they are supported by evidence. This course satisfies the SBC Experiential Learning requirement.

Course Overview

This is an interactive “hands-on” course that provides the experience of real-world
entrepreneurship – uncertain, sometimes intense, always learning if you do it right. Students work in **teams** to benefit from the diverse skills and talents of the team members (even Steve Jobs needed Steve Wozniak), to share the workload and to learn to collaborate, a basic skill for work and for life. The **activity of the course is not to research and write a business plan, because startups have little of the essential information a plan requires, but to search for a viable business model.** The course provides a set of tools for conducting that search. They include:

1. **Business model canvas (BMC).** Visual representation of 9 key segments of the business model. It will change every week and, over the semester, will become a visual record of the evolution of the team’s learning about the business the team is seeking to create. Team members will work on each of the elements during the semester, formulating hypotheses that they will test and either validate or invalidate. Launchpad Central will enable all team members to record the results of this hypothesis testing and connect them to the relevant elements of the canvas. This tool will be reviewed in class.

   Much, even most of the time, these tests will fail. **Searching embraces failure as a natural part of the startup process.** Unlike existing companies that fire executives when they fail to fulfill a plan, the Lean Launchpad startup **keeps the team members and fires the hypotheses by changing the business model.**

2. **Value proposition canvas.** This is a new visual tool, developed by Alexander Osterwalder and Yves Pigneur, the creators of the Business Model Canvas. It helps the team drill down on customer pains and gains in relation to the value proposition element of the BMC, and determine how close the iterations and pivots (see below) have gotten the product or service to “product-market fit.” This tool will be reviewed in class.

3. **Customer development.** The course focuses on Customer Development and Customer Validation. This means capturing the original vision of the business and turning it into a series of business model hypotheses, for which the team develops hypothesis-testing plan so that all the team members can investigate and test the reactions of potential customers, and later partners and suppliers, to those hypotheses – either turning them into facts or invalidating them. Every team will conduct these tests by **interviewing 10 potential customers** (later, suppliers, partners, etc.) **every week.**

4. Interviews aren’t presenting a Powerpoint slide deck on your wow technology or service, or asking a bunch of questions on Survey Monkey. The product or service you want to sell isn’t about **your cool idea**; it’s got to be about **the customer problem** your
cool idea is going to solve or the need it’s going to fulfill. You may posit what you think is the definition of your customer’s problem and find out it’s something entirely different. That’s great! Find out early what the problem or need really is. You’ll hear stories about very smart and experienced people who lost unbelievable amounts of money by not listening enough.

5. **AGILE DEVELOPMENT.** This term was originally developed to describe a process of software development that interacts with customers during an iterative development process to identify the minimum number of features that customers really want, the Minimum Viable Product. What you learn may result in small adjustments (iterations) to the product or service – e.g., the customers prefer a monthly subscription to a one-time price – or major changes (pivots) – e.g., we’re going to develop a crowdsourcing app to help users find vacant parking spaces in campus lots, not an app for finding buildings and rooms within them on campus.

6. **FLIPPED CLASSROOM.** Rather than devoting precious class time to lectures, outside of class students will watch videos (which include short quizzes*) of Steve Blank’s lectures on the elements of the BMC (accessed through Launchpad Central), and come to class prepared to ask questions, so that you can use your new knowledge to test your hypotheses about that element of the BMC. The instructor, TAs and mentors will listen to and comment on student presentations up front – every team, each team member, every week. You’ll get used to it—that’s the idea! In each presentation, teams will share with the class their answers to these questions:

   1. What did we initially think?
   2. So what did we do?
   3. Then what did we learn?
   4. What are we going to do next?

*The quizzes will be administered through a special browser called Respondus lockdown and monitor. Details on that are in the Quizzes section in this syllabus.

At the end of the course, teams will present their final business model canvas – explaining its viability or lack thereof – and highlight what they learned as well as their most important iterations, pivots and conclusions as shown in previous BMCs.

**Read the paragraph above again. The goal isn’t to start a business, and the search for a business model doesn’t have to end in finding a viable one: it’s about mastering the hypothesis-driven methodology.** The goal is to accumulate sufficient evidence through
real-world investigations to support an informed decision: at the end of the process experienced in the course, "No go" decisions and "Go" decisions are equally valid outcomes as long as they are supported by evidence. If you decide to start a business, that’s great – your alma mater has a ton of programs to help you, but that isn’t required to get a good grade.

Potential Projects

Ideally, you’ll consider a project in which you are deeply interested and/or already have some expertise, but you may incline toward something that sounds cool or appealing that you don’t know much about. Teams selecting a web-based product have to build at least a wireframe of the site for the class; we can provide help with that as well as app development and the like. We also have the assistance of the iLab and College of Engineering and Applied Sciences sources of 3D printing for making prototypes and other assistance. It’s our understanding that majors in the Department of Technology and Society taking EST 364/EST534 must develop a business model for a technology product. The Office of Technology Transfer and industry Relations can provide information about licensable University technologies.

Grading

Teams will be graded as follows:

1. **Individual participation 25%**
   Individual participation consists of four parts: a) quality of the written feedback of students’ peer-to-peer comments provided throughout the semester, during class presentations in LaunchPad Central software, b) attendance at each class, c) timely completion of ALL course videos viewed (those that fall far behind will be asked to leave the class and return when they are caught up), d) quizzes, and e) a grade from their fellow team members at the end of the course (by filling out a google form assessing the relative participation of other team members’ performance and productivity throughout the semester; your assessment will be confidential and accessible to only the teaching team). Differential performance may affect your individual grade.

2. **Out-of-the-building Customer Discovery progress 25%**
   Measured each week by a) quality of weekly interview write-ups and b) canvas updates and presentations. All team members are expected to perform interviews and contribute to the weekly interview reports on insights gained. As we move through the semester, we’ll decide together whether the interview report/canvas update/Powerpoint format is too constraining and you want to maintain a team blog as well. Differential performance may
affect your individual grade.

3. **Weekly team “lessons learned” presentations 25%**
   Team members must:
   
a. State how many interviews were conducted that week (include on cover slide).
   b. Present detail on what the team did that week, including changes to Business Model Canvas.
   c. Follow the assigned topics to be covered each week as outlined in the class schedule.
   d. This means that each week you will be continuing customer interviews and making any appropriate changes your validated or invalidated hypotheses indicate AND testing new hypotheses about the BMC segment for that week.
   e. Every team member delivers part of the team presentation every week.

4. **The teams’ final Lessons Learned presentations 25%**

**Time Investment**

This is going to be a very intense class as we try to simulate the working of a real world start-up. Be prepared to spend an inordinate amount of time (as much as 20 hours per week) getting work done during five working days of the week when you will be interviewing a lot of people. Your real work will start after a class ends and before the next one begins. If we find that you are not spending time on the learning objectives of this class, we will ask you to leave the class. Missing even one class could result in a full letter grade penalty.

**Required Course Materials**

LaunchPad Central online service (LPC) @ $50 per student is required. Please buy a subscription at [www.launchpadcentral.com/org-signup?code=estbus-364-s2019](http://www.launchpadcentral.com/org-signup?code=estbus-364-s2019).

Once you have signed up, please login at [launchpadcentral.com/login](http://launchpadcentral.com/login)

1. Steve Blank’s video lectures should be accessed through LPC.
2. Team members will record interview results, associating them with the relevant BMC element, through LPC.
3. Students will comment on presentations by other teams in LPC.
4. Instructors, advisers, mentors may comment through LPC.
Optional Course Materials


Quizzes

This course requires the use of LockDown Browser and a webcam for online quizzes. The webcam can be built into your computer or can be the type that plugs in with a USB cable. Watch this short video to get a basic understanding of LockDown Browser and the webcam feature. A student Quick Start Guide (PDF) is also available.

Then, download and install LockDown Browser from this link:

Windows Version:  
http://www.respondus.com/lockdown/download.php?id=772113517

Mac OSX Version:  

Don’t Google for a download link — it may be for the wrong school! Our version of the LockDown Browser is tied to Stony Brook University.

If you get a warning message from your anti-virus software, please white-list this download.

To ensure LockDown Browser and the webcam are set up properly, do the following:

- Start LockDown Browser, log into Bb, and select this course.
• Locate and select the Help Center button on the LockDown Browser toolbar.
• Run the Webcam Check and, if necessary, resolve any issues.
• Run the System & Network Check. If a problem is indicated, see if a solution is provided in the Knowledge Base. Troubleshooting information can also be emailed to our institution's help desk.
• Exit the Help Center and locate the Syllabus quiz named Syllabus Quiz, which is part of the Quizzes in the left menu.
• Upon completing and submitting the syllabus quiz, exit LockDown Browser.

When taking an online quiz that requires LockDown Browser and a webcam, remember the following guidelines:

• Ensure you're in a location where you won't be interrupted
• Turn off all other devices (e.g. tablets, phones, second computers)
• Clear your desk of all external materials not permitted — books, notes, other devices
• Remain at your computer for the duration of the test
• If the computer or networking environment is different than what was tested above, repeat the Webcam and System checks prior to starting the test
• To produce a good webcam video, do the following:
  o Avoid wearing baseball caps or hats with brims
  o Ensure your computer or tablet is on a firm surface (a desk or table) — not on your lap, a bed, or other surface that might move
  o If using a built-in webcam, avoid tilting the screen after the webcam setup is complete
  o Take the exam in a well-lit room and avoid backlighting, such as sitting with your back to a window
• Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.

**Technology**

In addition to Launchpad Central, the technologies and tools that we will use in this class include:

1. **Blackboard**: Most of the information pertaining to this class can be found at the BUS/EST364 course website at [http://blackboard.stonybrook.edu](http://blackboard.stonybrook.edu)
2. **Respondus LockDown Browser**: You will need to use this browser to take quizzes online; please download it from this link:


3. **Microphone and Webcam**: needed for on-line quizzes. The web cam should be either swiveling type or if built-in should allow you to rotate the monitor or laptop for showing your 360 degree environment in the beginning of a test.

4. **Adobe Acrobat Reader (free) and Microsoft Word and PowerPoint**: Free to Stony Brook University students, go to [https://it.stonybrook.edu/software/title/microsoft-office](https://it.stonybrook.edu/software/title/microsoft-office)

5. **Laptop or Tablet Computer and Internet Connection**: This course requires that you have a solid internet connection to a reliable and working laptop or tablet computer for out-of-class viewing video lectures, posting interview notes and updating your Business Model Canvas (all to be done in Launchpad Central), as well as completing quizzes in Piazza, and for posting peer comments on team presentations during class. Cheap wifi connections do not work and in the past students had difficulties taking exams when they were connected to unreliable wifi access points, such as at Starbucks, etc. **We will not be responsible for you not being able to connect to the servers during the quizzes and no extensions on time will be given. Therefore, to avoid any surprises, please take quizzes well ahead of the listed deadline.**

   Please install all the updates on your computer well before a quiz. Window operating system has the nasty habit of initiating an update just before a critical event.

**Communication**

You must have an active Stony Brook University e-mail account and access to the Internet. All instructor correspondence will be sent to your SBU e-mail account. Please plan on checking your SBU email account regularly for course related messages. To log in to Stony Brook Google Mail, go to [http://www.stonybrook.edu/mycloud](http://www.stonybrook.edu/mycloud) and sign in with your NetID and password.

This course uses Bb for the facilitation of communications between faculty and students, submission of assignments, and posting of grades. The Bb Course Site can be accessed at [https://blackboard.stonybrook.edu](https://blackboard.stonybrook.edu)
Preferred Method of Contact with Instructors

Our preferred method of contact outside the class is via email. Emails are not very efficient, but if you send us an email, we will respond to your emails as soon as possible, but please allow 24-48 hours for a response. Please utilize your Stony Brook University email when getting in touch with us as that is the preferred method of contact from the institution. Include your full name and NetID in all emails. In addition, please copy all the instructors on your email.

Academic Policies

Academic Integrity Statement: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academicjudiciary/

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students’ ability to learn. University Student Conduct Code can be found at (check for most current version) http://studentaffairs.stonybrook.edu/ucs/docs/universitystudentconductcode.pdf

ADA & Disability Support Services (DSS) Statement: The Rehabilitation Act of 1973 – Section 504 applies to all postsecondary educational programs that receive federal assistance. Reasonable accommodations and academic assistance are provided to students with disabilities registered with the Disability Support Services, ECC (Educational Communications Center) Building, room128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. For procedures and information go to the following website: http://www.stonybrook.edu/ehs/fire/disabilities

Course Materials and Copyright Statement: Course material accessed from Bb, SB Connect, SB Capture or a Stony Brook Course website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot
Getting Technical Help

Students that need help with Bb can contact the TLT Student Help Desk by calling (631) 632-9602, emailing helpme@stonybrook.edu; more information is available via Stony Brook IT: http://it.stonybrook.edu/services/blackboard#section-6706
Frequently ask questions about the Bb LMS along with tutorials are available here: http://it.stonybrook.edu/services/blackboard/navigate-manage

Subject to Change Notice

All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.

Syllabus Disclaimer

The instructor views the course syllabus as an educational understanding between the instructor and students. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes via email or in the course site Announcements. Please remember to check your SBU email and the course site Announcements often.