

## ID 550, Hacking for Defense: Solving National Security Issues with the Lean LaunchPad Method

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<b>Preferred Method of Contact:</b>	Email
<b>Office Hours:</b>	Schedule meeting through email
<b>Classroom; Days/Time:</b>	Tuesdays 5:15 - 7:45pm

### How to use this syllabus

This syllabus provides you with information specific to this course, and it also provides information about important university policies. This document should be viewed as a course overview; it is not a contract and is subject to change as the semester evolves. *(If any changes will be made they will be communicated to you via email.)*

### Academic Honesty

Students are responsible for knowing and following the Student Code of Conduct [http://webs.wichita.edu/inaudit/ch8\\_05.htm](http://webs.wichita.edu/inaudit/ch8_05.htm) and the Student Academic Honesty policy [http://webs.wichita.edu/inaudit/ch2\\_17.htm](http://webs.wichita.edu/inaudit/ch2_17.htm).

### Course Description

Hacking for Defense™ (H4D), a course designed for all undergraduate and graduate students from all disciplines and programs, takes an entrepreneurial, interdisciplinary approach to America's hardest national security challenges. You will be part of an interdisciplinary team to research, design, and propose a solution for a real national security challenge presented by one of the course's sponsors. The complexity of these challenges demands a transformative effort that requires multi-faceted teams. We need and want policy professionals, makers and mechanical engineers, systems engineers, computer scientists, biomedical and public health professionals, entrepreneurs, physicists, scientists, and everyone in between to be part of this unique effort. H4D is a modern renaissance class – it covers policy, economics, technology, national security, and whatever else you need to learn to solve your problem sponsor's pain points. You will be at the forefront of changing the paradigm of problem-solving and solution development for the U.S. Government. The course is demanding; you'll present at every class, you'll work closely with your team, and you'll receive relentlessly direct feedback. Your problem sponsors, mentors, military liaisons, corporate partners, investors, and journalists may be in the room, but you'll be solving real problems for real customers in real-time.

### Definition of a Credit Hour

Success in this 3-credit hour course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction and preparation/studying or course related activities for a total of 135 hours.

Go to: <http://webs.wichita.edu/?u=academicaffairs&p=/definitionandassignmentofcredithours/> for the policy and examples for different types of courses and credit hour offerings.

### Measurable Student Learning Outcomes

In this H4D class, student teams select from an existing set of problems provided by the DoD/IC community. Although teams pick a problem to solve, Hacking for Defense™ is not a product incubator for a specific technology/service solution. Instead, it provides teams with a deeper understanding of the selected problems and the host of potential solutions that might be arrayed against them. Using the Lean Startup Methodology, the class focuses teams to:

- Profoundly understand the problems/needs of government customers.
- Rapidly iterate solutions while searching for product-market fit.
- Understand all the stakeholders, deployment issues, costs, resources, and ultimate mission value.
- Deliver minimum viable products that match customer needs in a very short time.

- Produce a repeatable model that can be used to launch potential technology or other solutions.

#### Additional outcomes for Grads

- Develop skills of developing a MVP-Minimum Viable Product prototype
- Enhanced understanding of the value of user feedback in product development
- Skills development of systems thinking through flow charting processes
- Experience in Team Building, leadership and project management

#### Required Texts/Readings Textbook

None

#### Class Protocol

All assignments are due at the beginning of class on the assigned day unless otherwise indicated. It is expected that you will check your WSU Student Email for messages from your instructor and the department on a daily basis.

#### Grading Scale

WSU uses a +/- grading scale for final grades and to calculate grade point averages. In this class, grades are assigned according to the following chart. (*Note: the chart on the next page is a sample that may be used*). (Other classes might assign grades differently: Be sure to understand the different grading scales in all of your classes.)

Points/percentages, as instructor chooses	Letter grade	Grade Points	Interpretation
93-100%	A	4.00	<i>The A range denotes excellent</i>
90-92%	A-	3.70	
88-89%	B+	3.30	
83-87%	B	3.00	<i>The B range denotes good</i>
80-82%	B-	2.70	
78-79%	C+	2.30	
73-77%	C	2.00	<i>The C range denotes satisfactory</i>
70-72%	C-	1.70	
68-69%	D+	1.30	
63-67%	D	1.00	<i>The D range denotes unsatisfactory performance.</i>
60-62%	D-	0.70	
< 60%	F	0.00	<i>F denotes failing performance.</i>

#### Undergraduate vs. Graduate Credit (for 700 level courses)

Undergraduate students enrolled in 700 level courses will receive undergraduate credit (not graduate credit) unless they have a previously approved senior rule application or dual/accelerated enrollment form on file in the Graduate School. Undergraduate credit earned in 700 level courses cannot later be counted toward a graduate degree.

#### Late Assignments

No late papers will be accepted unless you have discussed it with me 24 hours prior to due date.

## Disabilities

If you have a physical, psychiatric/emotional, or learning disability that may impact on your ability to carry out assigned course work, I encourage you to contact the Office of Disability Services (DS).

The office is located in Grace Wilkie Annex, room 150, (316) 978-3309 (voice/tty) (316-854-3032 videophone). DS will review your concerns and determine, with you, what academic accommodations are necessary and appropriate for you. All information and documentation of your disability is confidential and will not be released by DS without your written permission.

## Counseling & Testing

The WSU Counseling & Testing Center provides professional counseling services to students, faculty and staff; administers tests and offers test preparation workshops; and presents programs on topics promoting personal and professional growth. Services are low cost and confidential. They are located in room 320 of Grace Wilkie Hall, and their phone number is (316) 978-3440. The Counseling & Testing Center is open on all days that the University is officially open. If you have a mental health emergency during the times that the Counseling & Testing Center is not open, please call COMCARE Crisis Services at (316) 660-7500.

## Diversity and Inclusive

Wichita State University is committed to being an inclusive campus that reflects the evolving diversity of society. To further this goal, WSU does not discriminate in its programs and activities on the basis of race, religion, color, national origin, gender, age, sexual orientation, gender identity, gender expression, marital status, political affiliation, status as a veteran, genetic information or disability. The following person has been designated to handle inquiries regarding nondiscrimination policies: Executive Director, Office of Equal Employment Opportunity, Wichita State University, 1845 Fairmount, Wichita KS 67260-0138; telephone (316) 978-3186.

## Intellectual Property

Wichita State University students are subject to Board of Regents and University policies (see [http://webs.wichita.edu/inaudit/ch9\\_10.htm](http://webs.wichita.edu/inaudit/ch9_10.htm)) regarding intellectual property rights. Any questions regarding these rights and any disputes that arise under these policies will be resolved by the President of the University, or the President's designee, and such decision will constitute the final decision.

## Shocker Alert System

Get the emergency information you need instantly and effortlessly! With the Shocker Alert System, we will contact you by email the moment there is an emergency or weather alert that affects the campus. Sign up at [www.wichita.edu/alert](http://www.wichita.edu/alert).

## Student Health Services

WSU's Student Health clinic is located in 209 Ahlberg Hall. Hours are 8:00am to 7:00pm (8:00 am to 5:00 pm on Fridays), though the clinic may be closed occasionally on Wednesdays from noon to 1:30pm. The telephone number is (316) 978-3620. In addition to outpatient and preventive care (including immunizations, a prescription service, and testing/counseling for sexually transmitted infections), Student Health can handle minor injuries. All services are confidential. For more information see [www.wichita.edu/studenthealth](http://www.wichita.edu/studenthealth).

## The Heskett Center and Campus Recreation

Whether you are wanting to be active on campus, relieve the stress from classes or take care of your body, Wichita State Campus Recreation is the place for you. Campus Recreation, located inside the Heskett Center, contributes to the health, education, and development of Wichita State University students, faculty, staff, alumni, and community members by offering quality programs and services. With many programs and facilities which are free to all students and members, Campus Recreation offers its members limitless opportunities. For more information about our services see [www.wichita.edu/heskett](http://www.wichita.edu/heskett).

## Video and Audio Recording

Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. Unless explicit permission is obtained from the instructor, recordings of lectures may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course.

## Tentative Schedule for Spring 2021

Date	Team Presentation	Lecture Topic
	Team Formation + Beneficiary Discovery	Beneficiary Discovery + Classroom Expectations
	Problem 101	DOD 101
	Mission Model Canvas	Beneficiaries
	Beneficiaries	Value Proposition
	Value Proposition	Product/Mission Fit
	Product/Mission Fit	Dual Use
	Dual Use	Mission Achievement
	Mission Achievement	Buy-in & Support
	Buy-in & Support	Deployment
	Deployment	Activities, Resources, + Key Partners
	Activities, Resources, + Key partners	Mission Budget + Operating Plan
	Mission Budget + Operating Plan	Reflections
	<b>Lessons Learned</b>	Presentation Tips & Best Practices
	<b>Lessons Learned: Final Presentations</b>	Final Lessons Learned Presentation

### Weekly Assignments UG

Class discussion

Ideation

Hypothesis and proof through interviews

Stakeholder identification

Set up and conduct weekly interviews (10 Minimum) with stakeholders

Create a Value Proposition Canvas for each user type

Identify Costs associated with producing product idea

Identify primary and secondary users

Update Business Model Canvas

Final project is a completed Notebook containing the contents of all discovery, product ideation, weekly interviews, Value Propositions, and revised Business Model Canvas.

## Weekly Assignments Grad

Class discussion

Ideation

Hypothesis and proof through interviews

Build an MVP-Minimum Viable Product prototype

Revise MVP based on weekly feedback a minimum of 3 revisions of the prototype will be required for evaluation

Stakeholder identification

Set up and conduct weekly interviews (10 Minimum) with stakeholders

Create a Value Proposition Canvas for each user type

Identify Costs associated with producing product idea

Identify primary and secondary users

Update Business Model Canvas

Create a flow chart of decision process for moving this product forward in the Dept of Defense

Create a flow chart of how the product will be used when implemented.

Final project is a completed Notebook containing the contents of all discovery, product ideation, weekly interviews, Value Propositions, revised Business Model Canvas', Flow charts of processes, and Final version of MVP.