

**Hacking for Defense (H4D, 94-491) & Hacking for Homeland Security (H4HS, 94-891)**

Carnegie Mellon University

Master of Information Systems Management Program

Fall 2021, Full Semester, 12 Units

**Faculty Advisors:**

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**Course Information:**

Sections A, B, C, D, E

Class Time: Meeting Schedule TBD

Classroom: Meeting rooms TBD

**Course Duration:**

August 30th – Dec. 12th, 2021

A detailed weekly course schedule and summary of course activities are posted in a separate document to Slack.

**Course Prerequisites:**

Optional but strongly encouraged prerequisites include a background in lean innovation frameworks, project management or IT project management, critical thinking skills, estimation, organizational management, communication and strategizing.

## Course Description:

Hacking for Defense (H4D) and Homeland Security (H4HS) is a university course sponsored by the United States Department of Defense (DoD) and Homeland Security (DHS) that challenges students to tackle new and emerging threats against the United States through mission-driven entrepreneurship. Students will be placed in teams (of 4-7) and select from a set of carefully curated, complex, real-world DoD/DHS problem sets. Student teams learn about the Department of Defense/Homeland Security as an organization, its culture, and its mission to instill a culture of relentless resilience across the United States.

Teams learn to apply Lean Innovation frameworks and tools to identify key stakeholders, understand their needs, and develop and test iterative minimum viable products (MVPs), leading to a solution. Using a flipped-classroom approach, the teams brief the teaching team on their progress each week and receive direct coaching from their instructors, mentors, and subject matter experts from across the DoD/DHS and entrepreneurship ecosystems. Problem sets focus on solving problems in specific agencies including the armed forces (Navy, Army, USAF, Marines, etc.) and branches of DHS including the Federal Emergency Management Agency (FEMA), Cybersecurity Infrastructure Security Agency (CISA), Transportation Security Administration (TSA), etc.

## High-Level Learning Objectives and Outcomes:

Skills and knowledge the students are expected to gain and how they will be assessed include:

- Obtaining a hands-on experience in understanding and working with the Department of Homeland Security on real-world and current problems
- Applying appropriate Lean LaunchPad tools and techniques (MMC, VPC, etc.) to successfully organize and operate within a DHS project boundary which will allow for the proper evaluation, escalation, risk management, summarization and congregation of appropriate deliverables to all stakeholders (beneficiaries, program sponsor, faculty, etc.) involved in the project.
- An appropriate selection and demonstration of hypothesis formulating, discovery, information gathering and hypothesis testing through confident knowledge and skills that will be applied to the final prototype and/or other deliverables.
- Development of critical thinking skills, interviewing, teamwork, complex problem solving, and building of professional networks through an entrepreneurial mindset.
- Applications of extracting insights from data collection for effective problem assessment and solving that are applied to the scope development through creation of MVPs and that allow for a properly vetted design, construction, and eventual summation of the project.
- Clear, concise, and effective storytelling through the presentation of weekly findings and final deliverables with an implementation of a formal client signoff process that ensures proper closure to the expected final state of the project.

## Reading Materials and Campus Wide Resources:

Project-specific readings and forms are available on Canvas or will be distributed in the first meeting. There is no textbook requirement. *Optional textbooks for reference include:*

Business Model Generation: Osterwalder, et al [BMG]

Value Proposition Design: Osterwalder, et al [VPC]

Startup Owner's Manual: Blank & Dorf [SOM]

*Software includes (but is not limited to):*

Communication and tracking software: Slack, MS Teams, Piazza (on Canvas), Discord, etc.

Project specific tracking software: Trello, MS Project, or anything utilizing a Gantt Chart, Burndown Chart, Work Breakdown Structure (WBS), etc.

File repository and versioning: GitHub, Box, Google Drive, Dropbox, Canvas, etc.

Feel free to utilize your favorite coding and development tools for both your prototypes and documentation/presentations. Make sure that everyone on the team as well as the program sponsor and faculty advisor have the ability to access and review.

## Attendance Policy:

Students are expected to attend all scheduled mandatory meetings with the faculty advisors and program sponsors, as well as all presentations and final requirements. As most of this course involves team-based work including live presentations, it is imperative that students are a part of each active session including all interview sessions. Absences/lateness must be handled professionally and approved in advance.

## Cheating, Plagiarism, and Academic Integrity:

Students at CMU are engaged in preparation for professional activity of the highest standards. Each profession constrains its members with both ethical responsibilities and disciplinary limits. To assure the validity of the learning experience, Carnegie Mellon establishes clear standards for student work. You are required to be familiar with all university policies on this subject (see <https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html>). An extract of these policies is reproduced here:

In any presentation, creative, artistic, or research, it is the ethical responsibility of each student to produce their own academic work and identify the conceptual sources of the work submitted. Failure to do so is dishonest and is the basis for a charge of cheating or plagiarism, which is subject to disciplinary action.

Cheating includes but is not necessarily limited to:

- Plagiarism which is explained below.
- Submission of work that is not the student's own for any part of the deliverables.
- Submission or use of falsified data.
- Theft of or unauthorized access to an exam or quiz. (if applicable)
- Use of an alternate, stand-in or proxy during an examination. (if applicable)

- Use of unauthorized material including textbooks, notes or computer programs in the preparation of an assignment or during an examination. (if applicable)
- Supplying or communicating in any way unauthorized information to another student for work on the project outside of the team or during an examination (if applicable).
- Collaboration in the preparation of work on the project outside of the team. Unless specifically permitted or required by the advisor, collaboration will usually be viewed by the university as cheating. Each student, therefore, is responsible for understanding the policies of the department offering any course as they refer to the amount of help and collaboration permitted in preparation of projects.
- Submission of the same work for credit in two projects without obtaining the permission of the instructors beforehand.

Plagiarism includes, but is not limited to, failure to indicate the source with quotation marks or footnotes where appropriate if any of the following are reproduced in the work submitted by a student:

- A phrase, written or musical.
- A graphic element.
- A proof.
- Specific language.
- An idea derived from the work, published or unpublished, of another person.

One application of this plagiarism policy for this course is that you may not provide or receive information on the work completed in the project (applicable for projects spanning more than one semester) unless approved beforehand. This includes both students from prior semesters and students from other sections in this semester. *The rule of thumb is that the work provided is to be original work from the individual and the team.*

### Course Web Sites:

Canvas: <http://canvas.cmu.edu>

Slack: <https://slack.com/>

We will use the Canvas site for hosting initial information and announcements. If you are registered in an H4HS project, you should already have access. Your login id is your andrew id and password.

Canvas has an up-to-date copy of the syllabus, schedule, pertinent documentation, A/V, and any H4HS announcements. While we will try to make announcements both in our meetings and on Canvas and Slack, it is a good idea for you to check and utilize both sites regularly. Additionally, Canvas has links to readings and relevant sites mentioned in our meetings with more extensive background materials.

Slack will be our primary communication and sharing tool. All project related information should be addressed through this site. No other sites or tools should be used without prior authorization from the faculty advisors.

### Grading and Course Requirements:

You will be evaluated based on your project analyses, participation in discussions, and project presentations. Your project analyses will be graded as group work. Your grades for individual participation and technical input will be your own. Grades will be given at the mid-term and final. Final grades will also be contingent on an evaluation of changes between the mid-term and final grade (meaning that the final grade can be affected by increase/decrease of how you were graded in the mid-term).

The final grade for the course is distributed among various components of both team and individual contributions:

1. Individual and team technical work/aptitude
2. Individual and team professionalism/delivery

The overall grade will be determined through the following formula which includes 4 sections:

		<b>Grade</b>
<b>Individual Professionalism</b>  <b>1/6</b> (based on peer and client/sponsor evaluations, observations, attendance, etc.)	<b>Team Professionalism</b>  <b>1/6</b> (based on client/sponsor evaluations, team responsibilities to the advisor and client such as meeting attendance, responsiveness, and organization of project work)	<b>= 1/3</b>
<b>Individual Technical</b>  <b>2/6</b> (based on peer and client/sponsor evaluations, research, scoping, technical knowledge and contributions of your work to the team effort)	<b>Team Technical</b>  <b>2/6</b> (based on client/sponsor evaluations, the teams' abilities to research, scope, and implement technologies to solve the client problem, as well as documenting and presenting their findings)	<b>= 2/3</b>
<b>Total Grade:</b>		<b>1</b>

Total grade equates to the max you can earn for the project (TG\*100) which will equate to the final letter grade based on a 100-point scale. Grading Scale is as follows:

GPA	Letter Grade	Percentage Grade		GPA	Letter Grade	Percentage Grade
4.33	A+	99-100		2.67	B-	80-83.9
4.00	A	94-98.9		2.33	C+	77-79.9
3.67	A-	90-93.9		2.00	C	74-76.9
3.33	B+	87-89.9		1.67	C-	70-73.9

3.00	B	84-86.9		0	R	0-69.9
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An example breakdown is as follows:

Student Name	Individual Tech	Individual Prof.	Team Tech	Team Prof.	Total	Letter Grade
Jean Doe	95	95	89	90	92.1	A-
Jeff Dee	90	83	89	90	88.5	B+
Jake Dell	80	100	89	90	88	B+
Jill Dean	100	100	89	90	94.5	A

Other areas that may be considered for grading can include assessments, attendance to other project presentations, and other requirements set forth in the project. These are outlined in the following section.

### Rubrics for Grading Each Section:

Each grade section is made up of one or more evaluation instruments to determine the final grade. The following outlines these criteria for determining that sections grade component.

#### Team Technical Grading Rubric (2/6):

**Technical Analysis (60%)** - understanding of the project and the issues highlighted, and solid reasoning/development for your argument/recommendation/prototype based on the problem or opportunity presented.

LEVEL OF PROFICIENCY	Exemplary (9-10)	Accomplished (7-8)	Developing (4-6)	Needs work (1-3)
<b>Problem Scoping</b>	Clearly defines the problem, its boundaries and the project's scope through hypothesis analysis and testing.	Defines the problem, with an understanding of its boundaries and the project's scope through hypothesis analysis and testing.	Sometimes makes contributions to defining the project's scope, but ideas through the hypothesis analysis and testing are vague.	Does not make contributions to define the project's scope through the hypothesis analysis and testing.
<b>Problem Solving</b>	Reviews multiple approaches for solving the problem that identifies a grounded approach within the specific context utilizing the Lean Launchpad methodology.	Identifies multiple approaches for solving the problem, only some of which apply within a specific context utilizing the Lean Launchpad methodology.	Identifies only a single approach without other considerations for solving the problem but that applies within the specific context and may or may not utilize the Lean Launchpad methodology effectively.	Identifies one or more approaches to solving the problem but that do not apply within the specific context or that utilize the Lean Launchpad methodology.
<b>Technology and Managerial Implementation (strength, testing, evaluation, quality)</b>	Clear knowledge and know-how to research and implement appropriate Lean LaunchPad methodologies and technologies for the project. This could include areas out of scope that add value and were approved.  Business and technological	Some knowledge and understanding of the methodology and technology to incorporate within the project are displayed. Methods and technical needs are mostly met to provide adequate project delivery and a solution to the problem	Vague incorporations or directions of technical research and implementations. Technical needs are still in development but show signs of creating a solution to the client problem but may not be met within the project.	No knowledge or understanding of the technology to be incorporated within the project, technical needs are not met, or do not work.  No cohesiveness between business and technical constraints through

	<p>decisions are synergistic and displayed thoroughly through development of MVPs and scoped through the VPC and MMC process.</p> <p>Prototype/demo/component presents and is delivered effectively.</p>	<p>area(s) identified by the client.</p> <p>Managerial and/or technical decisions made for the MVPs and through the VPCs and MMCs may show some minor lack of cohesiveness.</p> <p>Prototype/demo/component presents and is delivered but with minor issues.</p>	<p>Managerial and/or technical decisions made for the MVPs and through the VPCs and MMCs may show major lack of cohesiveness.</p> <p>Prototype/demo/component presents and is delivered but shows many issues.</p>	<p>managerial and/or technical decisions made for the MVPs and through the VPCs and MMCs.</p> <p>Prototype/demo/component is not delivered or does not function as it should.</p>
<b>Generates valid conclusions/decisions and considers the audience</b>	<p>Recommended solution is based on stated criteria, analysis and constraints and considers other options. Project expectations are fully met or exceeded for all beneficiaries. Considers not only the current but future scope.</p>	<p>Solution/decision is reasonable; further analysis of some of the alternatives or constraints defer different recommendations. Project expectations are mostly met. Beneficiaries are mostly considered in the final outcomes.</p>	<p>Solution/decision is reasonable; further analysis of some of the alternatives or constraints may have led to different recommendations. Project expectations are somewhat met. Beneficiaries are somewhat considered in the final outcomes.</p>	<p>Only one solution is considered, or other solutions were ignored or incompletely analyzed. Many constraints and criteria were ignored. Project analysis shows poor project outcomes. Beneficiaries are rarely or not considered for the final outcomes.</p>

#### Technical Content (40%) - based on the use of readings, resources, and supporting examples.

LEVEL OF PROFICIENCY	Exemplary (9-10)	Accomplished (7-8)	Developing (4-6)	Needs work (1-3)
<b>Identifies relevant &amp; valid sources of information to support decision-making through your research</b>	<p>All relevant information is obtained, and information sources are valid and accurate.</p> <p>Solutions are well supported by a deep and logical connection between research and conceptualizations.</p> <p>Alternatives exploring different facets of use are considered and are appropriately analyzed for feasibility.</p> <p>Identifies appropriate data for analysis and exceeds findings in an optimal methodology to address the problem.</p> <p>Sketches, prototypes, graphs and/or scenarios are used to bring opportunity areas to life.</p>	<p>Sufficient information is obtained, and most sources are valid.</p> <p>Solutions are mostly supported by the information gathered that create a connection between research and concept.</p> <p>Alternatives are considered but are not fully vetted.</p> <p>Identifies appropriate data for analysis and a methodology for addressing the problem.</p> <p>Sketches, prototypes, graphs and/or scenarios are sometimes used or may be slightly inconsistent.</p>	<p>Some relevant information is obtained but information sources are not always valid and accurate.</p> <p>Solutions are not well supported by the information gathered and doesn't show a connection between research and concept.</p> <p>Alternatives exploring different facets of use are rarely considered or are not appropriately analyzed for feasibility</p> <p>Attempts to identify data for analysis but may not understand or have an optimal methodology to solve the problem.</p> <p>Sketches, prototypes, graphs and/or scenarios are used but need a lot of explanation to bring opportunity areas to life or struggle to make the connection.</p>	<p>Insufficient information is obtained and/or sources lack validity and reliability.</p> <p>Solutions have no support by the evidence and nothing to show that the information gathered creates a connection between the research and concept.</p> <p>Alternatives are not considered or are not valid.</p> <p>Does not identify appropriate data for analysis.</p> <p>Sketches, prototypes, graphs and/or scenarios are not used and/or do not bring opportunity areas to life or only cause confusion.</p>

This rubric is combined with the client/sponsor feedback to determine the final grade (R+C/2).  
The following three criteria will be examined:

1. Technical outcomes/productions from the team. Were all requests during the first mini-semester met with technical expertise?
2. Fulfillment of project goals by the sponsor. Did the team meet all objectives set forth by the sponsor?
3. Confidence in the output and submission of the project. Is the sponsor happy with the final product/prototype/presentation/etc.?

### Team Professionalism Grading Rubric (1/6):

Since the project relies on group work, we will use a client review instrument to ensure that feedback from the client about the teams' progress contributions are considered in the determination of the final grade. This is in tandem with the following rubric that will be used to assess the team's professionalism in the project.

**Professional Skills (100%)** - Clear structure and organization of the deliverables, following the format requirements, and staying within the page/time limit as well as adhering to all professional standards during the project.

LEVEL OF PROFICIENCY	Exemplary (9-10)	Accomplished (7-8)	Developing (4-6)	Needs work (1-3)
<b>Client Skills</b>	<p>Meeting interactions are professional and productive, eliminates jargon and explains ideas well.</p> <p>All beneficiary meetings are met in a timely fashion and are well organized in advance.</p> <p>Demonstrates a high level of comfort and connection with the audience. Speakers respond accurately and appropriately to audience questions and comments.</p>	<p>Meeting interactions are mostly professional and productive. Few miscommunications and disconnects with some jargon that may interfere with explanation of ideas.</p> <p>Most beneficiary meetings are met in a timely fashion and are mostly organized in advance.</p> <p>Demonstrates a decent level of comfort with the audience. Speakers respond to most questions accurately and appropriately but may be slower to respond.</p>	<p>Meeting interactions are somewhat professional and productive. More miscommunications and disconnects with some jargon that may interfere with explanation of ideas.</p> <p>Most beneficiary meetings are needing improvement to time considerations and are only somewhat organized in advance.</p> <p>Demonstrates a slight discomfort with the audience. Speakers respond to questions less accurately and appropriately, and/or respond slowly.</p>	<p>Meeting interactions are unprofessional and/or unproductive. Multiple miscommunications and disconnects, and full for jargon and misunderstandings of ideas.</p> <p>Most beneficiary meetings are not meeting time considerations and are showing a lack of organization in advance.</p> <p>High degree of discomfort interacting with the audience. Speakers have difficulty responding clearly and accurately to audience questions or never responds.</p>
<b>Presentation Skills (visual, oral, written documentation) for telling the story</b>	<p>Slides are error-free and logically present the main components of the process and recommendations.</p> <p>Material is completely legible, and the graphics</p>	<p>Slides are mostly error-free and logically present the main components of the process and recommendations.</p> <p>Material is completely readable with some slight</p>	<p>Slides are not completely error-free and/or logically presenting the main components of the process and recommendations.</p> <p>Material is readable with</p>	<p>Slides contain errors and lack a logical progression. Major aspects of the analysis or recommendations are absent. Diagrams or graphics are absent or confuse the audience.</p>



	<p>highlight and support all of the main ideas. Sentences are grammatical with no spelling errors present.</p> <p>Speakers are audible and fluent on their topic, and do not rely on notes to present or respond.</p> <p>Is an effective summary of the team's efforts and works visually and considers all audiences.</p> <p>Does not run over allotted time but stays within the ideal range (Within 1-2 minutes) or allotted page length and stays concise.</p> <p>Report is well organized and clearly written. The underlying logic is clearly articulated and easy to follow. Diagrams or analyses enhance and clarify presentation of ideas. Sentences are grammatical and free from spelling errors.</p> <p>Demoing of final products is successful and includes a backup plan.</p>	<p>effort, and graphics reiterate most the main ideas. Sentences are grammatical with minimal spelling errors present that do not hinder the reader.</p> <p>Speakers are mostly audible and fluent on their topic and require minimal referral to notes.</p> <p>Is an effective summary of the team's efforts and is visually appealing and understandable for the audience.</p> <p>May slightly run over time or ends prematurely (2-4 minutes) or is over/under page length.</p> <p>Report is organized and clearly written. In all areas the logic or flow of ideas is clear to follow. Diagrams are consistent with the text.</p> <p>Demoing of final products is mostly successful and may or may not include a backup plan.</p>	<p>some challenges, and graphics somewhat reiterate the main ideas. Sentences are seeing grammatical errors with more spelling errors present that start to hinder the reader.</p> <p>Speakers are somewhat audible and fluent on their topic and require continual referral to notes or read directly from slides.</p> <p>Is a slightly less effective summary of the team's efforts and is less visually appealing and understandable for the audience.</p> <p>May run over time (over 2 minutes) or ends prematurely (4-5 minutes), or grossly over or under page length.</p> <p>Report is organized and clearly written for the most part. In some areas the logic or flow of ideas is difficult to follow. Diagrams are somewhat consistent with the text.</p> <p>Demoing of final products is somewhat successful, includes a backup plan that needs improvements.</p>	<p>Sentences are seeing many grammatical errors with many spelling errors present that completely hinder the reader.</p> <p>Speakers are often inaudible or hesitant, often speaking in incomplete sentences. Speakers rely heavily on notes.</p> <p>Is not an effective summary and does not work visually.</p> <p>The full audience is not considered.</p> <p>Time is well under or over allotted time (5+ minutes) or is extremely over or under page length.</p> <p>Report lacks an overall organization. Reader has to make considerable effort to understand the underlying logic and flow of ideas. Diagrams are absent or inconsistent with the text.</p> <p>Demoing of final products is not successful, and/or does not include a backup plan that works as an alternative.</p>
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This rubric is combined with the client/sponsor feedback to determine the final grade (R+C/2). The following three criteria will be examined:

1. Team responsiveness to communications; email, meetings, phone calls, etc. Did the team respond to all inquiries and in a timely manner?
2. Team professionalism. Did the team approach all work with the sponsor in a professional manner?
3. Confidence in the output and submission of the project. Is the sponsor happy with the final product/prototype/presentation/etc.?

#### Individual Technical Rubric (2/6):

Since the project relies on group work, we will use a peer review instrument to ensure that feedback from group members about team member contributions are considered in the determination of the final grade. This is in tandem with the faculty advisor's observations of the student's technical contributions to the team and the project and knowledge of the Lean Launchpad methodology.

#### Individual Professionalism Rubric (1/6):

Since the project relies on group work, we will use a peer review instrument to ensure that feedback from group members about team member professionalism are considered in the determination of the final grade. This is in tandem with the faculty advisor's observations of the student's professional contributions to the team and the project.

#### **A Note on Regrade Requests:**

If you believe that your grade is inaccurate, you may request a regrade under the following conditions:

1. Regrade requests must be submitted in writing within 3 days of the date when the grade was given.
2. Regrade requests must outline the reasons you deserve a change in your grade. Referencing another student's grade is inappropriate and irrelevant. While we do our best to apply an even standard across students, we can't discuss anyone else's grade with you, so we need to deal with the merits of your individual case only.
3. We reserve the right to regrade the entire H4HS project and thus your grade may go up, down, or stay the same. This regrade is considered final.
4. H4HS project participation grades are inherently subjective and not subject to a regrade request. We will make notes on participation at the end of each meeting and assign grades at the end of the semester based on these notes.

#### **Late Submission Policy:**

All late deliverables are subject to a grade penalty of 10% per day past the due date/time, with a maximum of 4 days. Anything submitted beyond 4 days past the due date will receive an automatic 0. Teams and individual submissions are subject to the same policy. Any issue with meeting a deadline must be cleared through the advisor or client/sponsor prior to the submission date/time or will be subject to the penalty.

#### **Diversity and Inclusion:**

It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of this course, and that the diversity that students bring to this course be viewed as a resource, strength and benefit. It is our intent to present materials and knowledge that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

Your suggestions are encouraged and appreciated. Please let us know ways to improve the effectiveness and experience for you personally, or for other students on the team. In addition, if any of our meetings conflict with your religious events, please let us know so we can make arrangements for you.

The topics and areas that we cover can vary, some of which can be difficult, not just intellectually but emotionally. While we expect there to be rigorous discussion and even disagreement during our meetings, we ask that you engage in discussion with care and empathy for the other members on the team as well as the beneficiaries and sponsors we work with. Aim to disagree without becoming disagreeable. In this course we will not shy away from the uncomfortable. Critically examining and assessing our most basic assumptions and values is not just one of the tasks of philosophy but is an activity vital to living an authentic life. We urge you to have the courage to the uncomfortable in this course. In exchange for your courage, we will work to ensure an environment that supports your taking these intellectual and emotional risks.

### **Student Health and Wellness:**

CMU and all classes, including this one, strive to accommodate students in all capacities by creating a learning environment that considers the health and well-being of all students. A review the university policies regarding health and wellness can be reviewed at:

<https://www.cmu.edu/graduate/current-grad-students/health-and-wellness/index.html>

Graduate student policies can be reviewed at:

<https://www.cmu.edu/graduate/policies/index.html>

**New for Fall 2021 and moving into 2022**, expectations for coming to any in-class or in-person meeting to contain the spread of Covid-19 can be reviewed at:

<https://www.cmu.edu/coronavirus/students/tartans-responsibility.html>

In order to attend class meetings in person, all students are expected to abide by all behaviors indicated in A Tartan's Responsibility, including any timely updates based on the current conditions.

In terms of specific classroom expectations, whenever the requirement to wear a facial covering is in effect on campus, students are expected to wear a facial covering throughout class. Note: the requirement to wear a facial covering is in effect for the start of the Fall 2021 semester. If you do not wear a facial covering to class, I will ask you to put one on (and if you don't have one with you, I will direct you to a distribution location on campus, see <https://www.cmu.edu/coronavirus/health-and-wellness/facial-covering.html>). If you do not comply, you will be referred to the Office of Community Standards and Integrity for follow up, which could include student conduct action. Finally, please note that sanitizing wipes should be available in our classroom for those who wish to use them.

### **Accommodations for Students with Disabilities:**

If you have a disability and have an accommodations letter from the Disability Resources office, I encourage you to discuss your accommodations and needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at [access@andrew.cmu.edu](mailto:access@andrew.cmu.edu).

## Student Academic Success Center (SASC):

SASC focuses on creating spaces for students to engage in their coursework and approach learning through a variety of group and individual tutoring options. They offer many opportunities for students to deepen their understanding of who they are as learners, communicators, and scholars. Their [workshops](#) are free to the CMU community and meet the needs of all disciplines and levels of study. SASC programs to support student learning include the following (program titles link to webpages):

- **[Academic Coaching](#)**--This program provides holistic, one-on-one peer support and group workshops to help undergraduate and graduate students implement habits for success. Academic Coaching assists students with time management, productive learning and study habits, organization, stress management, and other skills. Request an initial consultation [here](#).
- **[Peer Tutoring](#)**--Peer Tutoring is offered in two formats for students seeking support related to their coursework. Drop-In tutoring targets our highest demand courses through regularly scheduled open tutoring sessions during the fall and spring semesters. Tutoring by appointment consists of ongoing individualized and small group sessions. You can utilize tutoring to discuss course related content, clarify and ask questions, and work through practice problems. Visit the [webpage](#) to see courses currently being supported by Peer Tutoring.
- **[Communication Support](#)**--Communication Support offers free one-on-one communication consulting as well as group workshops to support strong written, oral, and visual communication in texts including IMRaD and thesis-driven essays, data-driven reports, oral presentations, posters and visual design, advanced research, application materials, grant proposals, business and public policy documents, data visualisation, and team projects. Appointments are available to undergraduate and graduate students from any discipline at CMU. Schedule an [appointment](#) on their website (in-person, zoom synchronous, or recorded video), attend a [workshop](#), or consult [handouts or videos](#) to strengthen communication skills.
- **[Language and Cross-Cultural Support](#)**--This program supports students seeking help with language and cross-cultural skills for academic and professional success through individual and group sessions. Students can get assistance with writing academic emails, learning expectations and strategies for clear academic writing, pronunciation, grammar, fluency, and more. Make an [appointment](#) with a Language Development Specialist to get individualized coaching.
- **[Supplemental Instruction \(SI\)](#)**--This program offers a non-remedial approach to learning in historically difficult courses at CMU. It utilizes a peer-led collaborative group study approach to help students succeed and is facilitated by an SI leader, a CMU student who has successfully completed the course. SI offers a way to connect with other students studying the same course, a guaranteed weekly study time that reinforces learning and retention of information, as well as a place to learn and integrate study tools and exam techniques specific to a course. Visit the website to see courses with SI available [here](#).

## Course Schedule (subject to change):

Please review the full course schedule outline posted to Canvas. A high-level list of expectations week to week is listed below:

Week	Team Presentation	Lecture Topic
1	Beneficiary Discovery	Beneficiary Discovery + Classroom Expectations

2	Problem 101	Department of Homeland Security / CISA / TSA 101 Department of Defense / US Armed Forces 101
3	Mission Model Canvas + Team Formation	Beneficiaries
4	Beneficiaries	Value Proposition
5	Value Proposition	Product/Mission Fit
6	Product/Mission Fit	Dual Use
7	Dual Use	Mission Achievement
8	Mission Achievement	Buy-in & Support
9	Buy-in & Support	Deployment
10	Deployment	Activities, Resources, + Key Partners
11	Activities, Resources, + Key partners	Mission Budget + Operating Plan
12	Mission Budget + Operating Plan	Reflections
13	<b>Lessons Learned</b>	Presentation Tips & Best Practices
14	<b>Lessons Learned: Final Presentations</b>	Final Lessons Learned Presentation