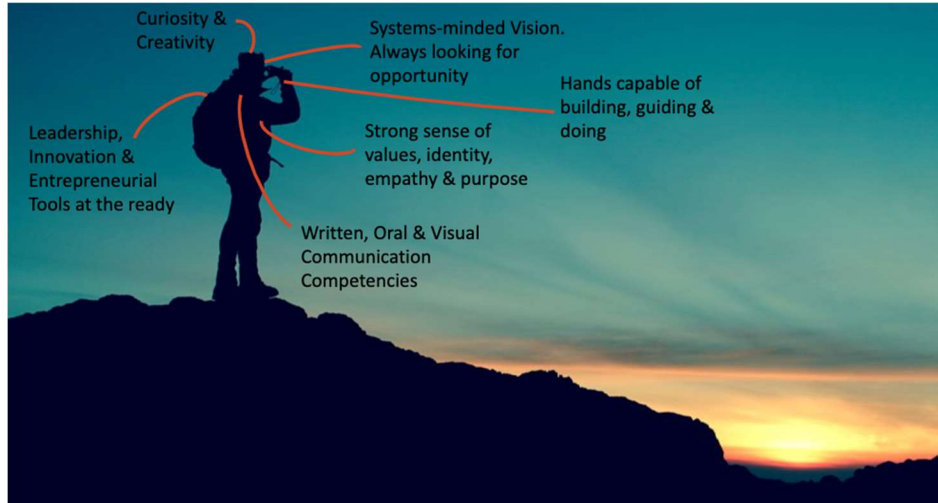


**HNRS 198A CLIMBING GUIDE (SYLLABUS)
GRANDEY LEADERSHIP BY DESIGN FIRST-YEAR EXPERIENCE**

HNRS 198A Leadership by Design – Fall 2022



Where will your climb take you?

Class Time:

Tuesday / Thursday

Section A: 2:00 - 3:15

Section B: 11:00 - 12:15

Section C: 2:00 - 3:15

"T" Time (Recitation):






Everyone All Together: **Wednesday** 12:00 – 12:50

Instructional activity & Course Designation: 3.0 credit hours lecture/studio plus 0.5 credit hours "T-Time"/recitation for 3.5 semester credit hours total. Part of the Common Core; Major requirement fulfilling the required courses of HASS 100 and EDNS 151 upon completion of BOTH semesters. (If you do not finish both semesters with a minimum grade of a C-, you will need to take BOTH EDNS 151 and HASS 100.)

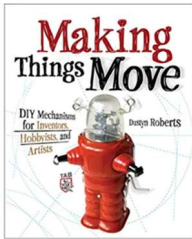
WELCOME TO THE GRANDEY FIRST-YEAR HONORS LEADERSHIP BY DESIGN!

In this experience, you will get to participate in a multidisciplinary, integrated, collaborative environment that will help you to blend leadership, design, communication, innovation, ethics and values, and integrative thinking in order to help you build the capabilities needed to lead and address grand challenges. You will experience a combination of experiential learning, projects, seminar discussions, guest speakers, and design sprints as you strive to understand and grow. In this first of two semesters, we will be spending some time in the "base camp" and gaining foundational knowledge and then begin our "climb to the LbD Summit" as we learn how to think in systems, analyze grand challenges, communicate "the story" in many ways, and create a moving design. This will all set us up for dreaming and designing "bigger" in our second semester when we dig into the design and life cycle of objects and redesign them, explore different perspectives of innovation through reading *Einstein's Dreams* and learning about Nikola Tesla, and learn how to innovate for grand challenges as we design "ecologies of interventions."

Your "Trail Guides"

<p>Professor Cj McClelland <i>(Call her Cj, Dr. Mac, Prof. Mac or anything else that seems appropriate.)</i></p> <p>Office Hours: Drop by or make an appt. She is usually around: T/Th: 9:30-10:45 & After classes</p>	 <p><i>Cj – Hiked from Mines to the civil engineering fields and then back to Mines... Currently, she is enjoying the view from the summit of her dream job</i></p>	<p>Dr. Harry Archer: <i>(Call him Harry, or Henry if you're upset with him)</i></p> <p>Office Hours: Th 9:30 – 10:30am, Friday 9:30 – 11:30am, and by appointment</p>	 <p><i>Harry – Finding different routes to climb between rhetoric, design, and technology.</i></p>
<p>Dr. Kate Youmans <i>(Call her Dr. Kate or Professor Youmans)</i></p> <p>Office Hours: Wed 1:30-3:30 in McNeil, and by appointment Mon/Fri via Teams</p>	 <p><i>Dr. Kate – Taking a wandering trail through medical device design and development of STEM programs, she has landed where she can share her excitement for design and passion for supporting students</i></p>	<p>Our Trail Guide in Training: Samara Omar <i>(Call her Samara)</i></p> <p>Office Hours: Wed 1-2pm, and by appointment</p>	 <p><i>Samara – After summiting Mines twice, Samara wandered into a wilderness of possibility! Now on her 3rd trek up, she wanders along trails of research, industry, and education.</i></p>
<p>And your "Guide on the Side..." Professor Toni Lefton: <i>(Call her Toni or Prof. Lefton)</i></p> <p>Office Hours: by appointment</p>	 <p><i>From medicine to creative writing to interdisciplinary STEAM education, Toni's been wandering the trails for over 25 years</i></p>		

Textbook and/or other materials:



We will be learning from many of the articles, videos, and other resources which will be posted on our Canvas site.

In addition, you will be using the book *Making Things Move* by Dustyn Roberts, - Available **FREE** through the Mines Library as an e-book.

Climber Notebook - Each student will need a blank notebook or sketchbook by the 2nd day of class, preferably either a blank or dotted Decomposition Notebook. The bookstore carries the blank books, and the dotted books are available online. Please no grid or lined pages.

Other Recommended Supplies: Note that **NONE** of the things listed below are required. Supplies and tools are available in the Honors House, in the Library, and in the classroom. For this experience, you will be building models and other things. To make things more convenient for you, you may want to consider buying some of your own supplies. I have included links for affordable options for some. -

*Hot Glue Gun and glue for it	*Hobby Knife, metal ruler, and cutting mat kit
*Craft Glue	*Gaffers Tape
*Painters Tape (whatever is cheap)	*Precision Screwdrivers
*Multi-Screwdriver	*Needle Nose Pliers with wire stripper and cutter
*Large Metal Paper Clips, takeout chopsticks, popsicle sticks, thumbtacks, and other random things around your house to build simple models.	*Graphite pencils (range in hardnesses from hard to soft leads), eraser and pencil sharpener
*Compass, metal ruler/straightedge and engineer's scale, and set of triangles	*Small Magnifying Glass
*Scissors	*Colored Pencils or Markers

**If at any time you find you need something (for this class, or for life (like food, etc)) but are unable to pay for it, please see your trail guide so we can help you get what you need.

Class Approach

In this class it is more important that you learn skills and practice new ways of thinking, than it is for you to get a certain number of points This class is about growth and creating a foundation of capabilities, knowledge, and mindsets. It is about practicing so that you will be successful and helping you build your capacity to shape the world through engineering, science, leadership, communication, innovation, and design.

WHAT WE HOPE YOU GAIN FROM THIS EXPERIENCE

By the end of our year together, we hope that you will see yourself as having grown as a:

- Leader
- Communicator
- Thinker
- Creator
- Innovator
- Collaborator

We will focus on these **Key Questions**:

- What is good leadership?
- What is good design?
- How do I best tell the story?
- How do I identify problems and find opportunities?
- Who am I as a leader, communicator, thinker, creator, innovator, and collaborator?

To help us grow and ponder these questions, we will focus on what we call the “10 C’s”

- **“C” yourself in LEADERSHIP** - Analyze leadership styles, techniques, and philosophies used by people to develop a vision, create impact and achieve goals; and investigate how (and whether) to apply these things to your personal leadership goals. Lead yourself, your team (Yes, calling this a “C” is pushing it.)
- **CHARACTER** - Reflect on personal values, beliefs, motivations, identities, morals, and ethical codes to better know oneself, to chart a personal path forward, and to find ways to grow capabilities and mindsets.
- **COLLABORATION** - Apply teamwork, time management, project planning, critique, peer review, gathering feedback, and other collaboration techniques to the work you do.
- **COMMUNICATION** - Design and create compelling and persuasive ways to “tell the story,” based on the key audiences and purposes; Use tools and techniques for delivering the story effectively. Use “two-way” communication methods to gain context, make connections, and build community.
- **CURIOSITY** - Use observation, ask powerful questions, conduct research, investigate multiple perspectives, and integrate reflection and documentation to learn more about the world. Be more curious than certain
- **CONNECTIONS & CONTEXT** - Use a systems-minded lens and investigate context to analyze how parts and systems are connected. Make analytic connections between social and technical dynamics. Make mental connections by reflecting on all that we do and by thinking creatively and critically. (Is this cheating to use 2 C’s?)
- **CRAFTING** - Build models and prototypes, and make hand and CAD drawings. Construct project deliverables using a variety of maker methods and use campus maker spaces.
- **CONCEPTUALIZING** - Use design techniques, tools, methods, and principles to develop concepts, communicate ideas, and deliver process work and deliverables.
- **CREATING VALUE** - Use design and innovation tools and processes to develop ideas into objects, products, systems, organizations, and more that add value for ourselves, others, communities, societies, and/or the world.
- **(grand)CHALLENGES** - Investigate the problems and opportunities inherent in grand challenges and investigate how people are leading efforts to address them. Evaluate the ways in which people, ideas, objects and designs affect the health, security, sustainability, and joy of living for people, communities, societies, ecosystems, and the earth.

We will also pay attention to these “bonus C’s”:

- **CREATIVITY** - Build Creative Confidence-Look at things through a “lens of creativity.” Let’s have some fun and experiment with being creative.
- **COMMUNITY** - Focusing on making the LbD community joyful through personal actions and collaboration.
- All of these will help you to gain **CONFIDENCE** as you learn and gain **CAPABILITIES & Mindsets** that you will carry forward with you.

HOW TO GET THE MOST FROM THIS CLASS

You will get the most out of this class if you TRULY participate. This means that you legitimately take part in class activities – instead of falling asleep, texting, chatting with your neighbor, surfing the web, etc. Sometimes class activities will require that you do something that doesn't feel comfortable at first. If you engage and give it a try, it is very likely that it will feel like fun or rewarding. We encourage you to take some chances and “put yourself out there.” You can also show engagement if your notebooks contain a lot of 'stuff' related to the class that show some effort and/or depth of thought. Similar to what will be expected of you by your future employer, here are some suggestions for demonstrating engagement:

- be on time and present
- come prepared
- ask questions and seek help and support
- read and follow the directions given
- communicate in advance if you will be absent
- behave professionally and respectfully at all times
- use proper formatting, grammar, and punctuation in all written communication (including online and through email)
- readily share your thoughts/ideas and openly participate in a collaborative manner
- exercise kindness and be respectful of others and their perspectives
- complete your work on-time
- earn your compensation (i.e. grade)

ASSESSMENT

The nature of this course does not lend itself to objective questions with “right” or “wrong” answers. Unlike many classes you may be used to, in Leadership by Design we learn through going through processes, making things, having conversations, adding to our past work, and completing projects that integrate a lot of topics and tasks together. There is no one right way to do these things – which is empowering! You have the opportunity in this class to try new things, make mistakes, build from failures, iterate, and learn deeply. Thus, rather than attributing points to the work you do (which is typically arbitrary), we instead examine your work in terms of how well you meet specifications. This is very similar to engineering work, where specifications lay out criteria that must be met in order for a project/design/product to be considered complete to an acceptable level of quality and safety.

Please do not reduce this course to a collection of points. This class is about growth and creating a foundation of capabilities, knowledge, and mindsets. It is about practicing so that you will be successful. This class is about helping you become a better leader, communicator, thinker, creator, innovator, and collaborator. It is about helping you build your capacity to shape the world through engineering, science, leadership, communication, innovation, and design. Basically, this class is about showing up, working hard, failing forward, collaborating, and being an active part of your world. Dive in. Learn as much as you can.

There are two assessment scales that we will be using for Leadership by Design:

1. You will be marked either Complete or Incomplete for daily attendance, process work, reflection, and reading/class prep assignments
2. You will be assessed using the Trail Markers Rubric for Weekly Cairns and Hike Deliverable assignments based on how well you meet the assignment specifications.
(An explanatory graphic is on the following page)

*TRAIL MARKERS
GRADING SCALE*
[T]/[C]/[B]/[S]

What do the marks on my assignment mean?



After you receive your marks, what should you do next?

<ul style="list-style-type: none"> • Be Proud of your Work • Review the Feed-Forward • Ask any questions you have • Reflect on what you have learned <p>Then you could choose to:</p> <ul style="list-style-type: none"> • Save it to use in your portfolio, or • Choose it to revise for your portfolio in the spring 	<ul style="list-style-type: none"> • Be Proud of your Work • Review the Feed-Forward. • Ask any questions you have • Reflect on what you have learned <p>Then you could choose to:</p> <ul style="list-style-type: none"> • Revise by the end of the hike to try for a [T] mark • Save it to use in your portfolio, or • Choose it to revise for your portfolio in the spring 	<ul style="list-style-type: none"> • Review the Feed-Forward • Ask your questions • Reflect on what you have learned <p>Then you need to choose to:</p> <ul style="list-style-type: none"> • Revise by the end of the hike to try for a [C] or [T] mark, or • Be content with the [B] <p>You might also consider</p> <ul style="list-style-type: none"> • Choosing to revise it for your portfolio in the spring 	<ul style="list-style-type: none"> • Re-read the Assignment and specifications carefully • Ask any questions you have • Jump in and get started <p>Then you need to choose to</p> <ul style="list-style-type: none"> • Revise within a week of receiving the mark or meet with a Trail Guide to create a plan (highly recommended), or • Be content with the [S]
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The table below shows how we will translate your marks into a final semester grade. Notice that an A does not mean perfection. You can earn a B quite easily and never attain a [T] mark on an assignment. You earn credit for this course with a C. It is up to you to chart your experience toward the grade you aspire to.

You need to achieve all aspects of a row to earn that final semester grade.

	Daily “Trail Ducks” (attendance & process assignments)	Reading/Class Prep Assignments	Weekly Individual and Team Cairns at the [T]/[C] level	Hike Major Deliverables at the [T]/[C] level	Self-Assessments & Reflections
Scale:	Complete/ Incomplete	Complete/ Incomplete	Trail Markers (See Previous Page)	Trail Markers (See Previous Page)	Complete/ Incomplete or Trail Markers
A **3 [T] marks needed	90% Complete	90% complete	All but 2 + None at the S level	All	All Complete or all marked [T] or [C]
B **No [T] marks needed	90% Complete	75% complete	All but 3 + None at the S level	All	All Complete or all marked [T] or [C]
C	80% Complete	50% complete	6/9 at the T, C, or B level	All	All Complete or all marked [T] or [C]
D – No HNRS198A Credit	70% Complete	50% complete	5/9 submitted	60%	-
F – No HNRS198A Credit	< 70% Complete	< 50% complete	< 5	<60%	-

**Sometimes life happens - if life is giving you a rough time, and you communicate with us, we can work together to help you be as successful as possible. This may include altering assignments and/or this table to better meet your circumstances. THE KEY is to communicate with us EARLY and OFTEN.

Plus/minus grades: Plus/minus grades will be assigned at the instructors' discretion.

Note: To receive credit for HNRS 198A and move on to Leadership by Design II next semester, you must earn a C- or higher. Those who don't attain the C- will need to take BOTH EDNS 151 and HASS 100 to get the required core credits that LbD covers.

** Assessment is an exercise in trust: We trust that you will put forth the intellectual effort required for the course, and we need you to trust our ability to fairly assess your learning. Thus, it also requires frequent communication. Please request, digest, and apply our, and your classmates' feedback. We are here to learn from each other, so please do not hesitate to ask questions and give us “feed-forward” as well.

*** We appreciate random, unexpected, inspired, and daring approaches to assignments (and life).

Course Information, Values & Policies

Communication is key...

YOU are responsible for understanding the content of the course syllabus, and for asking questions when you have them. Be sure that you if you do not understand anything about this syllabus or the class, please talk with us. Even though we won't always ask for your questions, we expect and encourage them, so please do not be shy. One of the best parts of our jobs is getting to know each of you. Please take the time to introduce yourself, come to office hours, or say hello anywhere on campus. We want for you to be successful and will work with you if extenuating circumstances arise – so be sure to talk with us. Communicating often and early allows for us to best help you however we can. CJ and Toni are “Safe Space” certified and we all are happy to talk seriously and/or simply have a chat.

IMPORTANT!! If you have an extenuating situation affecting your schooling (e.g. death in the family, illness, etc.) please meet with us so that we can help accommodate any needs that you may have BEFORE it adversely affects your learning. We will do what we can to help.

Feedback

Feedback is an essential part of this class, project work, and life. So, we actively solicit feedback, both positive and negative. This may occur verbally, in writing, as class discussions, in surveys, etc. Know that listening to feedback and incorporating it into your work can lead to amazing things – even if the feedback is difficult to hear. (Rest assured, there will **NEVER** be negative consequences for providing constructive negative feedback.)

Inclusivity and Open Dialogue

The Honors Program and the M-CLIMB course sequence are committed to fostering an inclusive environment that allows for the expression of diverse viewpoints. As instructors, we will work hard to develop and encourage a culture of respect, empathy, and open-mindedness, and we expect the same effort from our students. Because we will be sharing opinions on various issues, many of which may be new or controversial, it is especially important to maintain a professional and respectful attitude at all times. If you are ever concerned about the treatment of yourself, your peers, or your instructors, do not hesitate to contact us or Toni Lefton, Executive Director of the University Honors & Scholars Programs, at tlefton@mines.edu.

Communication and Transparency

Be considerate of both your instructors and your teammates in your communications. When you email one of your instructors, always copy the other instructors. When communicating about your course assignments and projects with your teammates, always include the entire team.

Passion and Creativity:

In this course, students and instructors are collaborators in the learning experience, so we encourage you to contribute your unique ideas and alternative ideas. We welcome your input even if it diverges from planned assignments and activities. Knowing yourself as a creative thinker and learner is important, so if you have suggestions for an alternative way for you to explore an idea, please feel free to ask.

Personal Responsibility and Initiative

Part of the reward and the challenge of being an Honors student is that you will be given a lot of freedom to explore ideas and develop projects, and we'll put a lot of trust in you to do what you've been asked. We are excited to support you along the way, but we also want you to take ownership of your educational experience. Please take the initiative to come to office hours, communicate your questions and ideas, and don't procrastinate on assignments.

Writing in this class

Poor writing skills will impact your grade in this class. In any technical field, it is critical to document your technical ideas and research clearly, concisely, and with factual back-up. For those of you who struggle with writing, take measures now to improve these skills. The Writing Center and several resources are available to help you: writing.mines.edu or email writing@mines.edu

Attendance

This is a collaborative, project-based course, thus your attendance is important to both your and your classmates' success. Therefore (once again), communication is key.... If an illness, injury, or other emergency prevents you from attending class, please take care of yourself and do not come to class, but do email Cj ASAP – preferably before class - with notification of your absence. Be sure to include your name, your section/time, the day(s) missed. If you will be/are gone for more than 3 days, be sure to notify the dean of students to get your absences excused.

If you miss class for any reason, be sure to: Talk with a classmate about what you missed, and check Teams and the Class Notebook for homework and/or assignments given in your absence so you can be sure to complete them by the due date. And, please, talk with us in case there are announcements or instructions for completing any in-class activities you have missed.

Attendance is required at all presentations and reviews even if you are not presenting. If you have a conflict, you are required to notify us and your teammates by email in advance. If a teammate does not come to class or a team meeting, you are encouraged to contact that person if they do not arrive after a reasonable time has passed to see if they are OK.

We recognize the breadth of religious observance among Mines students. We will provide reasonable accommodations for those students choosing to miss class for religious observances. However, it is your responsibility to look through the course syllabus and schedule and inform the instructor at least one week in advance of any conflict you may have. We will respectfully accommodate you so that you are not unduly disadvantaged from missing class.

(The official syllabus continues with more policies regarding accessibility, diversity, taking care of yourself and mental health, Covid-19 and Flu procedures, learning support for diverse learners, academic integrity, tutoring, and more...)