View these slides at:
go.umd.edu/ieoverview
We help UMD students and professionals creatively solve tough problems.
UMD I&E Highlights

  – Ranked **#6** overall, **#3** among all public universities


• In 2019-20, **49.5%** of all undergrads (14,485 students) enrolled in at least one innovation / entrepreneurship course
UMD Innovation & Entrepreneurship Programs
Featured in Two Separate Chronicle Cover Stories

April 2015

Sept 2017
Other Units in UMD I&E Ecosystem Do These:

- Teach nuts & bolts of starting a company/social venture
  - Pitching/selling
  - Raising money (grants, seed funds)
  - Legal stuff (company/501c3 formation, patents, etc)
- Connect you with co-founders
- Help you write a business plan
- Provide office or lab space
- Run competitions, grants, funds
- Advise you about your startup
  [startupguide.umd.edu](startupguide.umd.edu)
We help UMD students and professionals creatively solve tough problems.
Design Thinking Process:
a methodical way to creatively solve problems

Lean Startup Process:
a methodical way to maximize the # people you impact
We also lead *Design Thinking* & *Lean Startup* workshops for industry, *government*, & non-profits.
UNDERSTANDING TANF

Beneficiary
End Users

Low Income Families
Legislature
Legislative Staff
Legislative Members
Case Management
Service
Support

Value Segment

Payers

Recommender

Social Security
AFLC
Non Profit

Decision Makers

OA/SR
AFLC
Non Profit

Influencer

What does the recipient have a copy of the Facebook page/posts?

Yes

No

Tests

Does the recipient have a copy of the Facebook page/posts?

Yes

No

Chat Room/Forum

Does the recipient have a copy of the posts?

Yes

No

THE ACADEMY
for Innovation & Entrepreneurship
The BrainSpin Game!

BrainSpin is a game created by AIE & UMD alum Frankie Abralind (read the Terp Magazine story!)

To play, you’ll need:
- a piece of paper & a pen or pencil, or
- type into a note on your phone or computer
**BrainSpin Instructions**

**Instructions:** On the next slide is a simple sketch. You’ll have 30 seconds to write down as many possible things that you think the sketch could be.

Example:

- picture frame
- sugar cube
- die/dice
- a yawning robot’s mouth
- blueprint symbol for an elevator shaft

...  
... 

Go for quantity & keep writing until your time’s up!
What did you see?

Compare your list to the one below and cross out any of your answers that are the same.

- elevator doors
- window
- Shoji screen
- Roman numeral 2
- lego person legs
- stacked books
- dresser
- bunk beds
- sandwich
- equal sign

Now type any answers that aren’t crossed out in the chat...
What did you see?

Compare your list to the one below and cross out any of your answers that are the same.

- lollipop
- helium balloon
- dandelion
- quidditch goal
- upside down gymnastics rings
- pushpin
- person sleeping
- tadpole
- bubble blower wand
- duck with a long bill
- eye monocle

Now type any answers that aren’t crossed out in the chat ...
“I used to think that people generally saw the same thing when they looked at images. However, after doing the short brain game and seeing what others came up with compared to my answers, I see just how much difference there is in people's brains when looking at similar images.”

- IDEA258A Student from Spring ‘21
“The BrainSpin game activity was fun. Plus, it was a good way to demonstrate that different people look at the same problems and see different solutions, and that sometimes a change in perspective can open a new realm of possibilities!”

- IDEA258A Student from Spring ‘21
Design Thinking Process:
a methodical way to creatively solve problems

Lean Startup Process:
a methodical way to maximize the # people you impact
Our students learn how to...

- Develop deep empathy by designing for & with others
- Reframe problems in unexpected ways
- Brainstorm to generate radical ideas
- Prototype and iterate based on feedback
- Communicate ideas in compelling ways
- Create value by solving problems & scaling impact
- Embrace failure to learn & grow from it
Innovation Menu

1. Choose your portion size
2. Choose your design thinking “protein”

Portion Size:
- Appetizers
  // One (1) 75 min class
  // AIE guest instructor
- Light Entrees
  // Three (3) 75 min classes
  // AIE guest instructor
- Custom Cooking Classes
  // Multiple weeks
  // Co-design & co-teach w/ AIE guest instructor

Proteins: Your students learn how to ...

Develop deep empathy by designing for & with others
Reframe problems in unexpected ways
Brainstorm to generate radical ideas
Prototype and iterate based on feedback
Communicate ideas in compelling ways
Create value by solving problems & scaling impact
Embrace failure to learn & grow from it
Examples of Appetizers focused on Empathy as well as the Norman Doors activity!

Design Thinking Appetizers

Don’t have a project for students to apply design thinking to? Only have time for a session or two of Design Thinking? Our appetizers are a wonderful way to introduce design thinking in small, bite-sized ways. Be careful—these are sure to build an appetite for design thinking!

“Skillfull” Small Plates .......................................................................................................................................................... 75 min each

These stand-alone sessions don’t require an attached project. They’re grouped below according to abilities that we refer to collectively as The Designer’s Mindset.

❤️ Develop deep empathy & spot design opportunities

HOW TO TALK TO STRANGERS
By following a series of prompts sent to their mobile device, students conquer their fear of approaching strangers and identify why these interactions might be important for their work.

HOW TO SEE THE WORLD FROM A FRESH PERSPECTIVE
Students use the concepts of Norman Doors and “Vuja De” to identify innovation-ripe opportunities out in the world.

OBSERVING THE WORLD LIKE AN ANTHROPOLOGIST
Students improve their observation skills by listening to a podcast that will prompt them to “notice” the world around them more deeply and fully.
Reframe problems in unexpected ways

HOW TO FIND PATTERNS AND MAKE MEANING FROM EMPATHY DATA
Students use synthesis tools to sift through multiple data sets and arrive at insights.

Brainstorm to generate radical ideas

HOW TO BE AN IDEA-GENERATING MACHINE
Students practice conducting effective brainstorms by learning various brainstorm techniques

Learn from trying out unpolished ideas

HOW TO LEARN FROM MAKING IT FAST
Students experiment with building to brainstorm by using rapid prototyping to come up more radical ideas, and explore the differences in feedback elicited by different prototyping techniques.

Experiment Rapidly

HOW TO USE IMPROV TO PROTOTYPE
Students use improvisational theater techniques to flesh out ideas and to quickly (and cheaply!) test and iterate.

Radical Collaboration

HOW TO LEVERAGE A DIVERSE TEAM
Students use the 6 Hats Framework to experiment with different ways of thinking and working in teams, and learn to leverage these different ways of thinking and working while doing teamwork.

Brainstorming was the most requested dish
Entrees were mini-projects that provided students opportunities to leave a small mark on campus, an important step towards eventually making a mark in the world.

Design Thinking Light Entrees  FF, DFF
If you want to introduce students to the entire design thinking process in an in-depth and highly scaffolded way, consider these light entrees. These offerings pair well as a pre-cursor to a longer course project where design thinking will be applied.

Mini Project.................................................................3 sessions x 75 min
Students complete an entire design thinking project that will walk them through three steps: Build Empathy, Brainstorm Ideas, and Test Solutions. You will be paired with an AIE facilitator to conduct this project. You may choose from the Project flavors provided, or work off menu a bit as long as the flavor meets the criteria for a good mini project.

Examples of Project flavors:
» Redesign the welcome experience for new students.
» Redesign the commute experience for UMD staff, faculty and students that live off-campus.
» Redesign the campus wellness experience.
Design My Maryland: a mini-project to help students discover their majors/careers
“My whole philosophy [on teaching] has been changed because of this program. I used to think I needed to be the one to perform, and now I think the students are the main attraction. I used to think more about my students in the context of who they are today rather than who they will be become in the future, and now I think to connect the dots looking backward.”

- Faculty Member after a 5-week “custom cooking” workshop with AIE
“I used to think that I was not able to connect things I learned from my classes out into the real world very much in college. Now I think that if I attempt to think creatively and reflect on the course content more, I can draw parallels to the real world.”

- Student from AIE’s IDEA258A
“I have always had ample time to plan and have a formulated guideline as to what the heck I am doing. This class, I was robbed of that, but it was the best experience possible because it unlocked new skills and abilities I had never known I had.”

- Student from AIE’s IDEA258A
“At a certain point in our lives, whether we want to admit it or not, many of us begin to stick with what we know - and avoid new challenges ...

This week really made me reflect not just on myself, but on the true meaning of the big ideas of this class: breaking boundaries, enhancing our curious natures, and so so much more.”

- Student from AIE’s IDEA258A
“I used to think that some ideas are absolutely worthless and do not deserve to be put down on paper during brainstorming as no good could come out of them. Now I think that I was wrong ... what I think may be a wild idea may not be as wild of an idea to other people. Additionally, it is our job, as design thinkers, to go out there and attempt to convert the wild/impossible ideas to feasible ones using creativity.”

- Student from AIE’s IDEA258A

Feedback from another of those 14,845 students
OUR AIE TEAM

Dean Chang
Appointed "Dean" at birth
Assoc VP for I&E
Lived 1/3 life in Maryland, 1/3 life in California, and 1/3 life in 5 other states
Avid pickup basketball and ultimate frisbee player
Favorite family traditions: Beach week at the Outer Banks, RV road trips
Favorite movies: Shawshank Redemption, St. Elmo's Fire, Wreck it Ralph
Wants every student to discover and unleash the innovator inside!
LinkedIn: ter.ps/deanc
Email: deanc@umd.edu
Phone: (301) 314-8121
Office: 1130 Edward St. John Center
Want to meet? calend.ly/deancchang

Erica Estrada-Liou
Director of Curriculum & Experiential Learning
Hails from Pearland, TX
Spent 12 years living in sunny California, so snow is a new & wondrous phenomenon to her
is kind of obsessed with lighting solutions for the developing world...
LinkedIn: ter.ps/ede
Email: estrada@umd.edu
Phone: (301) 314-0425
Office: 1130 Edward St. John
Enjoy riding her road bike with her daughter, practicing yoga and watching Last Week Tonight with John Oliver

Brooke Smith
Learning Experience Designer
Has a knack for finding four leaf clovers
Loves to go camping, even though it usually rains
Speaks French & lived in Nice, France
Wears many hats at the Academy including Marketing & Operations Manager
Hanging out in a hammock is her favorite place to be
LinkedIn: ter.ps/bes
Email: bsmith.1@umd.edu
Phone: (301) 405-5882
Office: 1130 Edward St. John

Mira Azarm
Innovation Instigator
Favorite food: pickled
Has 2 weird dogs and a people-loving cat
Traveled to Egypt and Brazil as a Design Coach
LinkedIn: ter.ps/mira
Email: mazarm@umd.edu
Phone: (301) 405-5882
Office: 1130 Edward St. John
Has 20+ years at UMD (starting in Undergrad)
We help UMD students and professionals creatively solve tough problems.