Is it possible to learn how to be an innovator or entrepreneur? We at the Academy for Innovation & Entrepreneurship think YES, and we are here to help make this happen all across campus!

We collaborate with faculty from all schools and colleges to integrate innovation or entrepreneurship into existing courses. AIE has a team of Innovation and Entrepreneurship (I&E) educators eager to work with faculty to design ways to integrate and teach I&E methodology and concepts in their courses.

What does AIE teach, exactly?

While there are certainly many innovation and entrepreneurship methods and processes out there, we focus on introducing students to the following:

- **Design Thinking** – a human-centered, prototype-driven, creative process that helps teams come up with unexpected solutions to problems.
  
  Design Thinking includes the following:
  
  - gaining empathy for your end users
  - reframing the problem in an expected way
  - ideating or brainstorming various solutions
  - prototyping possible solutions in a quick & low-fidelity manner
  - returning back to the end user to seek feedback

- **Lean Startup** – an iterative process for developing a product and business model.
  
  Lean Startup includes the following:
  
  - getting out of the classroom and off campus to interview dozens or even hundreds of potential customers and stakeholders (customer discovery)
  - understanding their problems and pain points in the market and society
  - using these interviews/experiments to validate or invalidate key components of the initial business model
  - recognizing the need to pivot (changing your business model)

How exactly does AIE work with Faculty?

We work with faculty in three different ways based on how they describe themselves: (1) Distinguished Fearless Faculty, (2) Fearless Faculty, and (3) Light-Touch Faculty. In order to choose how to describe yourself, we ask that you consider the extent to which you want to integrate I&E methodology into your course, teach the concepts on your own and contribute to the Fearless Faculty Learning Community. Rather than bore you with more details written in not-very-well-constructed prose, take a look at the tables on the following two pages for more details.
### How AIE works with Faculty to integrate INNOVATION (design thinking)

<table>
<thead>
<tr>
<th>Type of Interaction</th>
<th>AIE General Support</th>
<th>Curriculum Options (See ter.ps/DTmenu for details.)</th>
<th>Fearless Faculty Learning Community (see next page for details)</th>
</tr>
</thead>
</table>
| **Light-Touch Faculty** | AIE Teaching Staff (either an AIE Facilitator or an experienced Peer Innovation Coach) teaches 1-2 sessions of I&I methodology | **Design Thinking Appetizers:** Choose from a set of bite-sized introductions to Design Thinking.  
**In-class Support:** YES — I&E modules (no more than two class sessions) are facilitated by AIE Teaching Staff. | If you’re interested in the AIE Learning Community consider signing up to be either a Fearless Faculty or Distinguished Fearless Faculty! |
| **Fearless Faculty** | AIE Teaching Support from AIE Facilitators to deliver a 3-session I&E module | **Design Thinking Appetizers:** Choose from a set of tested bite-sized introductions to Design Thinking.  
**Design Thinking Light Entrees:** Incorporate a highly scaffolded design thinking mini-project into your course.  
**Design Thinking Cooking Classes:** An AIE Facilitator will coach you through designing and facilitating your own Design Thinking sessions.  
**In-class Support:** YES — We will be available to teach & assist in the classroom for up to three class sessions. | We invite you to learn from & contribute to the Learning Community by leading a Presentation/Share-Out during one of the Learning Community sessions. |
| **Distinguished Fearless Faculty** | • Funding  
• Fearless Ideas course designation in Testudo  
• AIE Teaching Support from AIE Facilitators to integrate I&E methodology into course and teach up to 8 I&E sessions  
• Priority booking of The Loft for class sessions in the new Edward Saint John Learning & Teaching Center  
**Design Thinking Appetizers:** Choose from a set of tested bite-sized introductions to Design Thinking.  
**Design Thinking Light Entrees:** Incorporate a highly scaffolded design thinking mini-project into your course.  
**Design Thinking Cooking Classes:** An AIE Facilitator will coach you through designing and facilitating your own Design Thinking sessions.  
**In-class Support:** YES — We will be available to teach & assist in the classroom for up to eight class sessions. | • You’re committing to contributing by leading a Presentation/Share-Out during one of the Learning Community sessions!  
• You will be eligible to receive funding to attend Professional Development workshops in Design Thinking and Lean Startup. |

**AIE General Support that is common to all Faculty:**  
- Supplies (post-it notes, markers, prototyping materials, etc) for I&E sessions  
- Access to Peer Innovation Coaches (trained juniors & seniors that can assist in coaching students through I&E projects and activities)

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Beta version! #neverstopprototyping
## How AIE works with Faculty to integrate ENTREPRENEURSHIP (lean startup)

<table>
<thead>
<tr>
<th>Type of Interaction</th>
<th>AIE General Support</th>
<th>AIE Teaching Support Details</th>
<th>Fearless Faculty Learning Community</th>
</tr>
</thead>
</table>
| **Distinguished Fearless Faculty** | Faculty that teach a Fearless Ideas course and/or have attended the Stanford d.school’s Teaching & Learning Studio… | • Funding  
• Fearless Ideas course designation in Testudo  
• AIE Teaching Support from AIE Facilitators to integrate I&E methodology into course and teach up to 8 I&E sessions  
• Priority use of The Loft for class sessions in the new Edward Saint John Learning & Teaching Center | • You’re committing to contributing by leading a Presentation/Share-Out during one of the Learning Community sessions!  
• You will be eligible to receive funding to attend Professional Development workshops in Design Thinking and Lean Startup. |
| **Fearless Faculty** | AIE Teaching Support from AIE Facilitators to help design & deliver a 2-3 session I&E module | Custom Integration of I&E Modules: YES — An AIE Facilitator will sit down with you & help you determine how to integrate Lean Startup into your course schedule.  
Custom Curriculum Design for I&E Sessions: YES — We will rely on slide decks, activities & handouts we have used in the past, but will work with you to customize for your course & student projects.  
In-class Support: YES — In the first couple offerings of the course, we will be available to teach & assist in the classroom for up to **eight** class sessions. This support lasts for 3 course offerings, with the idea that eventually you will be leading the I&E sessions (we will help you get there!). | We invite you to learn from & contribute to the Learning Community by leading a Presentation/Share-Out during one of the Learning Community sessions. |
| **Light-Touch Faculty** | AIE Teaching Staff (either an AIE Facilitator or an experienced Peer Innovation Coach) teaches 1-2 sessions of I&E methodology | Custom Integration of I&E Modules: NO — You will choose from a well-tested set of stock Lean Startup modules.  
In-class Support: YES — I&E modules (no more than **two** class sessions) are facilitated by AIE Teaching Staff. There is no expectation for you to eventually lead the sessions. | If you’re interested in the AIE Learning Community consider signing up to be either a Fearless Faculty or Distinguished Fearless Faculty! |

### AIE General Support that is common to all Faculty:
- Supplies (post-it notes, markers, prototyping materials, etc) for I&E sessions
- Access to Peer Innovation Coaches (trained juniors & seniors that can assist in coaching students through I&E projects and activities)
The AIE Fearless Faculty Learning Community consists of both Distinguished Fearless Faculty and Fearless Faculty that are seeking AIE Teaching Support. This learning community is a place to share both successes AND lessons learned from things we’ve tried in our courses with regard to innovation, such as teaching Design Thinking (DT) and Lean Startup (LS).

Each Learning Community Session (lunch provided) will consist of the following:

- A theme/topic
- 1 or 2 Faculty Presentations/Share-Outs + Discussion
- 1 AIE Staff Share-Out + Discussion

### Winter 2018

**January**

4-day DT workshop @d.school* (by application)

### Spring 2018

**February**

Learning Community Lunch

**March**

Learning Community Lunch

**April**

Learning Community Lunch

**May**

Learning Community Lunch

### Summer 2018

**June**

4-day DT workshop @d.school* (by application)

**July**

4-day DT workshop @d.school* (by application)

### Fall 2018

**September**

Learning Community Lunch

**October**

Learning Community Lunch

**November**

Learning Community Lunch

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*Example of a Professional Development workshop! First priority will be given to Distinguished Fearless Faculty and Fearless Faculty.

Potential Topics for Learning Community Sessions:

- Evaluation/Grading
- Prototyping
- Scoping a Design Project
- Empathy
- Teams
- Reframing Problems
- Ideation
- Business Model Canvas (LS)
- Value Propositions (LS)
- Customer Discovery (LS)
- Combining LS + DT
- Storytelling/Presentations

4
How do I know if my course is a good fit?

We are certainly open to (and excited about!) finding ways to weave I&E into courses that might not seem to traditionally overlap with I&E. That being said, from our previous prototypes, we’ve learned that courses that either cover I&E directly as a topic or ask students to complete a collaborative project where they’re coming up with solutions to problems result in the most successful collaborations.

If you’d like to talk more about whether introducing I&E into your course makes sense, please email Erica (eestrad3@umd.edu) to set up a time to chat.

What makes for a successful collaboration with AIE?

Although this is a bit dependent on how you decide to describe yourself (Distinguished Fearless Faculty, Fearless Faculty or Light-Touch Faculty), there are some general things to aspire to for spectacular collaborations:

- **Be open to learning the I&E concepts yourself!** Our Distinguished Fearless & Fearless Faculty commit to being heavily involved in learning and teaching I&E concepts; however, we also encourage Light-Touch Faculty to be highly involved as well. We’ve observed in the past that students can connect more to the material when their professor explains how I&E relates to the course and their field both before and during the I&E sessions.

- **Introduce I&E concepts early and often.** We’ve found that students engage more deeply when they are primed for I&E sessions. Specifically, it helps to introduce I&E sessions in your syllabus, and make sure they integrate seamlessly into the rest of the curriculum. AIE Facilitators can provide examples from other classes and work with you on how best to do this.

- **Help us hold our time-strapped Fearless Innovators accountable.** We’ve learned that, whether it’s through reflecting on the process or turning in some aspect of their work, students engage best when they are held accountable for I&E aspects of the course. For example, if you ask us to help introduce the concept of prototyping in your course, students should have some sort of graded deliverable related to prototyping. AIE Educators can provide examples from other classes and work with you to design deliverables that will enhance the I&E experience for your students.

- **Be ready to start planning for sessions before the semester begins!** While creative breakthroughs can happen just before deadlines, we would rather not be planning up until the minute since we typically support around 20 different courses simultaneously during a semester. To help us balance that many courses, planning for I&E sessions should take place before the semester begins. While we do try to “meet the students where they are” and can fine-tune sessions based on how things are going in the course, big last-minute changes in what we’re covering and how we’re teaching doesn’t really work. See the table below for exact dates on when planning can begin for this semester.
• **Be ready to get your hands dirty!** We often design sessions that are very hands-on and action-oriented. This means that there is sometimes quite a bit of set up before class, and clean up after class. We are always ready to roll up our sleeves and encourage you to do the same!

• **Help us create a distraction-free environment.** Our favorite topic. Laptops and cell phones. Since every classroom culture is different, we’ll certainly want to brainstorm with you creative ways to convincing our Fearless Innovators to disconnect for an hour or two.

You haven’t scared me away yet! What is the process for initiating a collaboration?

<table>
<thead>
<tr>
<th>Step</th>
<th>Details</th>
<th>Dates</th>
</tr>
</thead>
</table>
| **Step 1:** | Choose a Fearless Educator Designation.  
(https://goo.gl/forms/c2sww4sczxx0CcK73)  
Use the charts on pages 2 and 3 to determine if you are a Distinguished Fearless Faculty, Fearless Faculty or Light-Touch Faculty. | You’ll need to submit this before submitting the Teaching Support Request form due on December 4. |
| **Step 2:** | If you want to include Design Thinking in your course, study the Innovation Menu (ter.ps/DTMenu) and determine what you’d like to order.  
If you want to include Lean Startup in your course, skip to Step 3. |  |
| **Step 3:** | Take a look at your syllabus and think about when you might want to include I&E in your course. (An estimate is fine – we have some world-travelin’ Facilitators, so we want to make sure the Facilitator assigned to work with you will be here.) | You’ll need this for the Teaching Support Request form due on December 4. |
| **Step 4:** | Submit the Teaching Support Request form.  
(https://goo.gl/forms/KScHdDz3Q3P03N6j1)  
If you submit before Dec. 4 and are requesting customized sessions, we will do our best to match you to a facilitator immediately so that you can start working on your course early. | No later than 5pm Friday December 4! |
| **Step 5:** | We will put all the courses that submit a Teaching Support Request before the deadline into a highly scientific algorithm that matches you to one of our esteemed AIE Facilitators (or Peer Innovation Coaches). | December 5-December 11 |
| **Step 6:** | We will introduce you to your AIE Facilitator.  
Schedule a January 2018 planning meeting with them. | December 12 |
| **Step 7:** | Work with your AIE Facilitator to set specific dates for sessions and start to design session details. | January 2-January 23 |
| **Step 8:** | Depending on the type of collaboration, there will be opportunities to debrief the I&E sessions and the collaboration process. | Towards the end of the semester |
Innovation Menu

The Academy for Innovation & Entrepreneurship works with faculty to integrate design thinking into courses. We’re happy to present to you our menu: a carefully crafted collection of curriculum for the creatively curious. This menu features ways in which we work with faculty to integrate Design Thinking, a process that helps solve difficult real-world challenges in an iterative and human-centered way.

We pride ourselves in the freshest and most experiential curriculum, which is constantly being tested, re-designed, and tested again by our team of Design Thinking Facilitators and Peer Innovation Coaches. While we have been known to whip up some specialties “off the menu” for our most loyal customers, we encourage you to first indulge in what you see here.

Design Thinking Appetizers LTF, FF, DFF

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!

Introductory Project ...................................................................................................75 min
Students complete an entire design thinking project which will help introduce them to the steps of the process.

Project Flavors:
» Mon-Yays // Redesign the Monday Morning experience.
» Oral Hygiene // Redesign the oral hygiene care experience.
» New City // Redesign the experience of traveling to a new city.

“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.

Overview of Offerings:
- Appetizers // Taught by AIE Facilitators
- Light Entrees // Taught by AIE Facilitators
- Custom Cooking Classes // AIE Facilitators prepare faculty to teach a custom session

Contact Erica Estrada-Liou (eestrada3@umd.edu) with questions.
“Skillful” Small Plates, cont.

浭 Reignframe 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.

浭 Brainstorm to generate radical ideas

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

浭 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.

浭 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.

浭 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.

HOW TO GO WITH THE FLOW
Students learn how to leverage the core principles of improvisational theater to become more creatively agile, open, and collaborative with team members.

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.

Contact Erica Estrada-Liou (eestrad3@umd.edu) with questions.
Academy for Innovation & Entrepreneurship // Innovation Menu
Custom Cooking Classes FF, DFF

Want to seamlessly integrate the concept of prototyping, empathy or some other Design Thinking-related topic of your choice? Or, do you want help with things like designing your design project and promoting more effective teamwork in your course? Try one of our Custom Cooking Classes where you are the chef, and we coach you through designing and implementing various aspects of your course. This option works well if your students are working on a course project, and you want them to tackle the project with a Design Thinking approach.

Custom Cooking Class ........................................................................................................................................................................................................................................... It depends.

The length of class time depends on what you and your AIE Facilitator cook up! You’ll be paired with an AIE Facilitator to design the project, teamwork experience, class sessions, activities, assignments and other aspects of the learning experience needed for you to integrate elements of The Designer’s Mindset into your course.

Things we can help with:

» **Designing the design project.** If you want your students to use a Design Thinking approach to a course project, we will work with you to frame the challenge in a way that is ripe for this type of work.

» **Designing an environment for effective radical collaboration.** If your students will be working for more than a couple of weeks in project-based teams, we can work with you on designing the teamwork experience.
  • Team Formation
  • Team Feedback (Techniques & frameworks that help students give each other direct & constructive feedback)

» **Integrating specific Design Thinking content into your course.** We can help you design the activities and assignments related to these concepts, and either co-teach with you or help prepare you to take the lead:
  • Empathy (Interviewing, Observation, Immersion)
  • Synthesis and Define (Tools to find patterns in empathy data, Creating a Point of View)
  • Ideation (Brainstorming)
  • Prototyping (Experience Prototyping, Prototype to Test, Prototype to Think)
  • Storytelling (Story Arc, Storyboards, Techniques for “Show, don’t tell”)

Contact Erica Estrada-Liou (eestrad3@umd.edu) with questions.
APPENDIX A – Design Thinking and Lean Startup Introductory Resources

**DESIGN THINKING**


IDEO Shopping Cart Video //
http://www.youtube.com/watch?v=M66ZU2PClcM

“Design Thinking” in Harvard Business Review //
http://www.ideo.com/by-ideo/design-thinking-in-harvard-business-review

**LEAN STARTUP**

The Lean Approach Introduction Video from Kauffman Foundation’s Startup School //
http://www.entrepreneurship.org/Founders-School/The-Lean-Approach

The Lean Approach: The Lean Method Video from Kauffman Foundation’s Startup School //

“Why the Lean Start-Up Changes Everything” in Harvard Business Review //
http://steveblank.com/2013/04/16/when-hell-froze-over-in-the-harvard-business-review/