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 (Design Thinking & Lean Startup Facilitators) eager to work with faculty to design ways to integrate and teach I&E methodology and concepts in their courses.

What do we 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 that begins with customer discovery, which involves physically getting out of the classroom and off campus to interview dozens or even hundreds of potential customers and stakeholders to understand their problems and pain points in the market and in society. These interviews, or experiments, lead to real-world insights that validate or invalidate key components of the business model, often leading to pivots.

Since both of these frameworks involve working in teams, as well as communicating new ideas to the world, we also spend a lot of time teaching the following:

- **Storytelling** – a method that is used in both Design Thinking & Lean Startup by innovators to communicate their new idea to the world.

- **Radical Collaboration** – this includes multi-disciplinary team formation, techniques for leveraging the variety of experience and expertise within the team and how team members communicate with each other to improve upon the way they work together.
Do I have to teach ALL of the above in my course?

Certainly not! We work with faculty interested in introducing I&E concepts at various levels. We can either help you to introduce students to an entire process, or to discrete pieces of processes, depending on what might be helpful for the course. For example, if prototyping is a concept that would be helpful and applicable for your students, then you and an AIE Facilitator might decide to only introduce the concept of prototyping.

How exactly does AIE work with Faculty?

In general, we are available to help you before your course begins as you design your syllabus, as well as help you teach the I&E elements of your course in the classroom once your course starts. “Helping you teach” can look like us being the lead facilitator for a particular I&E class session, OR we can provide you materials and lesson plans to help prep you to teach a session on your own or with our help as co-instructors.

Based on our previous work with faculty, we now have a more nuanced set of flavors of collaboration! To summarize, 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 (I’m an engineer!), take a look at the charts on the following two pages for more details. I think you’ll get it once you see it.
# How AIE works with Faculty to educate Fearless Innovators

<table>
<thead>
<tr>
<th>Type of Interaction</th>
<th>AIE General Support</th>
<th>AIE Teaching Support Details</th>
<th>Fearless Faculty Learning Community (see next page for details)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinguished Fearless Faculty</td>
<td>Faculty that teach a Fearless Ideas course....</td>
<td>Custom Integration of I&amp;E Modules: YES — An AIE Facilitator will sit down with you &amp; help you integrate either Design Thinking or Lean Startup into your course schedule. Custom Curriculum Design for I&amp;E Sessions: YES — We will rely on slide decks, activities &amp; handouts we have used in the past, but will work with you to customize teaching materials for your specific course &amp; student projects. In-class Support: YES — In the first couple offerings of the course, we will be available to teach &amp; 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&amp;E sessions (we will help you get there!).</td>
<td>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.</td>
</tr>
<tr>
<td>Fearless Faculty</td>
<td>Faculty that teach an existing course where they want to integrate an I&amp;E module customized to their course project....</td>
<td>AIE Teaching Support from AIE Facilitators to help design &amp; deliver a custom 2-3 session I&amp;E module Custom Integration of I&amp;E Modules: YES — An AIE Facilitator will sit down with you &amp; help you determine how to integrate either Design Thinking or Lean Startup into your course schedule. Custom Curriculum Design for I&amp;E Sessions: YES — We will rely on slide decks, activities &amp; handouts we have used in the past, but will work with you to customize for your course &amp; student projects. In-class Support: YES — In the first couple offerings of the course, we will be available to teach &amp; assist in the classroom for up to three class sessions. This support lasts for 3 course offerings, with the idea that eventually you will be leading the I&amp;E sessions (we will help you get there!).</td>
<td>We invite you to learn from &amp; contribute to the Learning Community by leading a Presentation/Share-Out during one of the Learning Community sessions.</td>
</tr>
<tr>
<td>Light-Touch Faculty</td>
<td>Faculty that want to introduce their students to I&amp;E in either one or two class sessions...</td>
<td>AIE Teaching Staff (either an AIE Facilitator or an experienced Peer Innovation Coach) teaches 1-2 sessions of I&amp;E methodology Custom Integration of I&amp;E Modules: NO — You will choose from a well-tested set of stock I&amp;E (either Design Thinking or Lean Startup) modules. In-class Support: YES — I&amp;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.</td>
<td>If you’re interested in the AIE Learning Community consider signing up to be either a Fearless Faculty or Distinguished Fearless Faculty!</td>
</tr>
</tbody>
</table>

### 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)
AIE Fearless Faculty Learning Community

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 (either Breakfast or Lunch) will consist of the following:

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

**New Fearless Faculty that have not taught with AIE Teaching Staff before are required to attend either an Intro to Design Thinking workshop or an Intro to Lean Startup workshop. Everyone else is always welcome to join, but certainly not required!**

*Example of a Professional Development workshop! First priority will be given to Distinguished 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

---

**Spring 2016**
(dates will be announced on January 11th)

**February**
Learning Community Lunch

**March/April**
Learning Community Breakfast

**May**
Intro to Design Thinking workshop**
Intro to Lean Startup workshop**

**Fall 2016**

**September**
Learning Community Lunch

**October**
Learning Community Breakfast

**November**
Learning Community Lunch

**Winter 2017**

**January**
Intro to DT Workshop**
Intro to LS Workshop**

---

**Spring 2016**

**February**
Learning Community Lunch

**March/April**
Learning Community Breakfast

**May**
Intro to Design Thinking workshop**
Intro to Lean Startup workshop**

**Summer 2016**

**Various Dates**
3-day DT workshop @ d.school* (by application)

**Fall 2016**

**September**
Learning Community Lunch

**October**
Learning Community Breakfast

**November**
Learning Community Lunch

---

*Example of a Professional Development workshop! First priority will be given to Distinguished Fearless Faculty.
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. For courses with a collaborative project, AIE helps to introduce I&E processes that help students methodically get to an innovative solution.

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. There is also an appendix of resources on the last few pages of this Faculty Guide that might help you think about whether this is a resource you’d like to pursue.

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 & 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.** Whether it be a post-reflection, or turning in some aspect of their work, we’ve learned that 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 almost 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 Timeline section 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 & 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.

We have a longer list of “lessons learned” and topics we’ll want to discuss with you as we prepare for I&E sessions, but these are the highlights.

**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>
<tbody>
<tr>
<td><strong>Step 1:</strong></td>
<td>Use the chart on page 3 to determine if you are a Distinguished Fearless Faculty, Fearless Faculty or Light-Touch Faculty.</td>
<td>You’ll need this for the Count Me In form due on November 25.</td>
</tr>
<tr>
<td><strong>Step 2:</strong></td>
<td>Take a quick look at your syllabus and think about when you might want to include I&amp;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.)</td>
<td>You’ll need this for the Count Me In form due on November 25.</td>
</tr>
<tr>
<td><strong>Step 3:</strong></td>
<td>Submit the <a href="http://goo.gl/forms/YnZFx0wRmw">Count Me In form</a>.</td>
<td>No later than 5pm Wednesday November 25! (the eve of Thanksgiving)</td>
</tr>
<tr>
<td><strong>Step 4:</strong></td>
<td>We will put all the courses that submit a Count Me In form before the deadline into a highly scientific algorithm that matches you to one of our esteemed AIE Facilitators (or Peer Innovation Coaches for some of the Light-Touch courses).</td>
<td>Facilitators will receive the Course List on December 2, submit their preferences by December 9, and the matching process will commence thereafter.</td>
</tr>
<tr>
<td><strong>Step 5:</strong></td>
<td>We will introduce you to your AIE Facilitator.</td>
<td>On Monday, January 11, we will introduce you via email to your AIE Facilitator match!</td>
</tr>
<tr>
<td><strong>Step 6:</strong></td>
<td>Work with your AIE Facilitator to set specific dates for sessions and start to design session details.</td>
<td>January 11-January 22</td>
</tr>
<tr>
<td><strong>Step 7:</strong></td>
<td>Depending on the type of collaboration, there will be opportunities to debrief the I&amp;E sessions and the collaboration process.</td>
<td>Towards the end of the semester</td>
</tr>
</tbody>
</table>
APPENDIX A– Design Thinking & 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 Kauffmann 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/
## APPENDIX B – List of Custom & Light-Touch Modules
(For Fearless Faculty & Light-Touch Faculty)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Name of Course / Program</th>
<th>Topics Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>College Park Scholars</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPSP 218A</td>
<td>Second-Year Colloquium I / Arts</td>
<td>Introduction to DT process, Focus on Empathy &amp; Define</td>
</tr>
<tr>
<td>BMGT 289B</td>
<td>How Do Innovators Think?</td>
<td>Introduction to DT process through 3-session project</td>
</tr>
<tr>
<td>CPSP 118E</td>
<td>Freshman Colloquium / Environment, Tech &amp; Econ</td>
<td>Introduction to DT process, Focus on Define &amp; Ideate (brainstorming), How to get started on course’s collaborative project</td>
</tr>
<tr>
<td>CPSP 218F</td>
<td>Second-Year Colloquium I / Global Public Health</td>
<td>Introduction to DT process, Focus on Empathy, Define &amp; Brainstorm applied to course’s collaborative project</td>
</tr>
<tr>
<td>CPSP 119L</td>
<td>First-Year Colloquium II / Life Sciences</td>
<td>Introduction to DT process, Give examples of innovation projects related to field</td>
</tr>
<tr>
<td>CPSP 218J</td>
<td>Second-Year Colloquium I / Media, Self &amp; Society</td>
<td>Introduction to DT process</td>
</tr>
<tr>
<td>PUAF 201</td>
<td>Leadership for the Common Good</td>
<td>Introduction to DT process, Give examples of innovation projects related to field, Focus on Empathy, Define &amp; Ideate applied to course’s collaborative project</td>
</tr>
<tr>
<td>CPSP 218D</td>
<td>Second-Year Colloquium I / Science, Discovery &amp; the Universe</td>
<td>Introduction to DT process, Give examples of innovation projects related to field, Focus on brainstorming &amp; storytelling</td>
</tr>
<tr>
<td>CPSS 100</td>
<td>Freshman Colloquium / Science, Technology &amp; Society</td>
<td>Introduction to DT process through 3-session project, Focus on</td>
</tr>
<tr>
<td>CPSP 227</td>
<td>Capstone / Science, Technology &amp; Society</td>
<td>Introduction to DT process through 3-session project</td>
</tr>
<tr>
<td><strong>Honors College</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEIP 144</td>
<td>Contemporary Issues in Entrepreneurship &amp; Innovation</td>
<td>Introduction to DT process, Focus on Define &amp; Ideate, Introduce Prototyping applied to course project</td>
</tr>
<tr>
<td>HHUM 105</td>
<td>Introduction to the Arts &amp; Humanities / Honors Humanities</td>
<td>“Fail early, Fail often” activity, Introduction to DT process through special project, How to get started on Keystone Project</td>
</tr>
<tr>
<td>GEMS 202</td>
<td>Team Dynamics &amp; Research Methodology / Gemstone</td>
<td>Introduction to DT process, Give examples of innovation projects related to product development</td>
</tr>
<tr>
<td>Course Number</td>
<td>Name of Course / Program</td>
<td>Topics Covered</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>Various Departments &amp; Programs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPSP 249T</td>
<td>Code for Community</td>
<td>Focus on prototyping digital products in context of course project</td>
</tr>
<tr>
<td>BSOS 388D</td>
<td>Career Paths for Business Entrepreneurs</td>
<td>Introduction to DT, Introduction to Lean Startup &amp; Business Model Canvas</td>
</tr>
<tr>
<td>UNIV 150</td>
<td>FIRE: Innovation &amp; Research Foundations</td>
<td>Introduction to DT, Focus on Storytelling and Prototyping</td>
</tr>
<tr>
<td>BSGC 102</td>
<td>Global Issues</td>
<td>Introduction to DT, Give examples of innovation projects related to field</td>
</tr>
<tr>
<td>UNIV 389T</td>
<td>Social Media for Social Change / Beyond the Classroom</td>
<td>Introduction to DT, Focus on empathy, define, ideation &amp; disruption applied to course project</td>
</tr>
<tr>
<td>ENES 210</td>
<td>Entrepreneurial Opportunity Analysis &amp; Decision-making in Tech Ventures</td>
<td>Introduction to DT</td>
</tr>
<tr>
<td>BMGT 389E</td>
<td>Maryland Social Entrepreneurship Corps</td>
<td>Introduction to DT</td>
</tr>
<tr>
<td><strong>Special Projects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL Various Sections</td>
<td>Professional Writing Program Courses</td>
<td>Introduction to DT, all steps of DT process applied to course project, Prototyping a piece of writing, Storytelling</td>
</tr>
<tr>
<td>UNIV 100</td>
<td>Introduction to the University</td>
<td>Introduction to DT through special course project, Business Model You Project</td>
</tr>
</tbody>
</table>