I create innovators by teaching students the skills, tools, and mindset to tackle real-world issues. My course encourages students to exercise their innovation muscles to develop unexpected solutions to tough problems.

What’s your Fearless Ideas Course? Submit a pre-proposal by October 28th.
Request for Pre-Proposals for “Fearless Ideas” Innovation and Entrepreneurship Courses

Background
The Academy for Innovation and Entrepreneurship (AIE) seeks proposals for new or revised experiential “Fearless Ideas” courses related to innovation and/or entrepreneurship that will provide students with the skills and mindset to develop and/or launch their fearless ideas. Fearless Ideas courses should ideally include collaborative, multi-disciplinary project teams and discovery-based learning techniques and should focus on the development of innovation and/or entrepreneurship skills that help create economic, social, or cultural value. Candidate “Fearless Ideas” courses may be new courses or existing courses that have been adapted for this Request for Pre-Proposals (RFP) and should target launch during one of the following semesters: Fall 2016 or Spring 2017.

AIE will form a Fearless Ideas course approval committee that will include representatives from throughout campus. This committee will select and fund a diverse portfolio of courses that include:

• A wide range of academic disciplines
• A mix of lower level (100/200) and upper level (300/400) courses (graduate level courses will also be considered)
• A mix of courses including those that satisfy requirements for specific majors, minors, and general education requirements

Course Goals
Fearless Idea courses are not about developing innovations or startup companies but about developing innovators who have the skills, tools, and entrepreneurial mindset necessary to tackle and solve real-world challenges. Fearless Idea courses ideally accomplish the following:

• Engage students in ongoing opportunities to reach innovative solutions by quickly, relentlessly, and iteratively hypothesizing, experimenting, and learning from both successful and failed approaches that build upon each other
• Challenge students to create value by taking risks and seeking non-obvious solutions
• Foster collaborative teams with diverse majors, skills, experiences, cultures, and viewpoints
• Incorporate discovery-based/experiential learning into the curriculum

Where possible, AIE encourages Fearless Idea courses that satisfy general education requirements, particularly Scholarship in Practice and I-Series. Adaptation of existing general education courses, particularly Scholarship in Practice and I-Series courses, is also encouraged.

Types of Courses
AIE seeks a diverse mix of courses in response to this RFP. Descriptions and videos of current Fearless Ideas courses can be found at http://innovation.umd.edu/learn/fearless-ideas-courses/. Courses may be
reinventions of existing courses (with same course numbers where possible) or entirely new course offerings. Priority will be given to undergraduate-level courses; however, graduate course submissions are also welcome. Where possible, courses should also fulfill general education requirements or requirements for a major or minor.

AIE has embraced Design Thinking to teach creativity and innovation and Lean Startup to teach entrepreneurship (http://innovation.umd.edu/about). These two methodologies both involve experiential, discovery-based learning where students seek out, interview, and observe real people in the field to gain insights and learn the nuances of real-world problems and needs. Then students quickly and iteratively test many concepts, learning from ones that work and more importantly from ones that fail, until they ultimately begin to reach innovative solutions.

Fearless Ideas courses should incorporate Design Thinking or Lean Startup, and/or foster innovation tailored to a specific field of study (e.g., innovation in counterterrorism or social value) or entrepreneurship tailored to a specific field of study (e.g., entrepreneurship in the arts, media, or agriculture). Regardless of methodology, Fearless Ideas courses should have the three characteristics below.

What Constitutes a Fearless Ideas Course?

As illustrated in the diagram above, the ideal Fearless Ideas course contains hands-on, real-world projects that have space for reframe. Each of these attributes is more specifically defined as follows:

- **Projects have space for reframe** – A project that has space for reframe allows students to truly explore a wide (but not too wide!) solution space. The solution has not been predetermined, and
is not baked into the project prompt, but at the same time, is not all-encompassing. A good project space is somewhere in the middle (i.e., “Goldilocks Conditions”). Consider the following three groups of prompts:

**Group A Prompts – No space for reframing**
Design a policy that encourages recycling in Prince George’s county.
Design a better recycling bin for residents of Prince George’s county.
Design a recycling club for students at Prince George’s county schools.

**Group B Prompts – Too much opportunity for reframing**
Our topic is global warming. Choose a project in this space.
Design a solution for global warming.

**Group C Prompts – Good opportunity for reframing**
Design a way to encourage recycling in elementary schools in Prince George’s county. Your final solution might be a system, a product, or a campaign – we are agnostic to the form it takes as long as it’s grounded in insights from talking to real stakeholders out in the field, and that you have tested it in some concrete way.
Design a way to encourage families in Prince George’s county to recycle.

The first prompt in Group A presupposes the solution and limits the students to designing a policy. It doesn’t give students the opportunity to redefine the problem based on things they hear people say that may not be best addressed by policy alone. The other prompts in Group A are similarly prescriptive. Prompts in Group B are much too open-ended, and as a result students often have a hard time getting started because they spend too much time searching and trying to scope their project. This can be frustrating for everyone involved, especially when class time is already limited and it’s important for students to be able to quickly jump in and get to the meat of the project. Prompts in Group C are “just right” in that they narrow the scope a bit (by defining specific user groups and a specific context), but still allow students to experiment and be creative. Another way of thinking about scoping is to focus on a specific group of people (who) and a specific problem (what), but not a specific solution (how).

- **Real-world projects** – We want to see students get out of the classroom and out into the world talking to the real people that are affected by or on the “front lines” of the problems they are tackling. This means that students should be outside the classroom and even off campus talking to these people in order to gain insight when beginning their project, as well as continually getting feedback from them throughout the design process. While it’s important for students to consider the opinions of “experts” (policy makers, content experts, etc), we would like to see students talking to the actual end users – the people whose lives will be most affected.

If the project in your course is one that might require interacting with a hard-to-reach population, we ask that you have a plan to help students gain access to that population in an appropriate way. Many of the most successful Fearless Ideas courses have set up a partnership with an organization as a means to accessing the target populations. For example, in one course, the faculty member wanted students to work on projects focused on food insecurity and provided access to the
affected population by organizing a partnership with College Park’s Meals on Wheels one year, and then the UMD Campus Food Pantry the next. Some of the more difficult (but not impossible!) projects are those that target international populations, particularly people living in remote and impoverished areas. So, if you are thinking about having your students work on a project to provide clean water to remote villages in Africa, for example, we will want to see how you plan to help students interact with and gain empathy for those populations while working on the project here in College Park.

- **Projects are hands-on** – We want to see students developing and testing actionable solutions. Fearless Ideas courses ask students to create deliverables that are implementable. In some cases, this means making real stuff. For example, if a student is working on a solution that is a physical product, the student should be asked to create a series of rough prototypes of the product. The same goes for a solution that is digital. The app or website might not be fully functional in the end, but students should develop a series of rough prototypes that they can go out and test with real people.

  Furthermore, if a student is working on something intangible such as a new system, policy recommendation or a marketing campaign, students should still develop a concrete prototype and test it on real people. For example, if a student is designing a policy recommendation, the student might be asked to create a storyboard of what enacting that policy might lead to and how individuals will be affected and then share that storyboard with citizens. If developing a new marketing campaign, the student might be asked to create the various artifacts to be deployed during the campaign and try them out on a pilot group of people. There are a variety of ways for a project to be “hands-on,” but at a basic level, we look for courses that integrate deliverables that are actionable and progressively iterated on, rather than courses that culminate in something like a more traditional research or white paper.

The ideal Fearless Ideas course should demonstrate all three of the above-mentioned attributes. However, we invite faculty to submit pre-proposals for consideration even if they have only two of the Fearless Ideas attributes. We also invite faculty to contact us to discuss these elements of their course at any time during the pre-proposal preparation. Please contact Erica Estrada-Liou (eestrad3@umd.edu) to arrange a meeting.

**Learning Outcomes (Also refer to Table of Learning Outcomes below)**

At the completion of a Fearless Ideas course, students must meet at least four (4) Learning Outcomes. Two of the four learning outcomes must be the two (2) Required General Learning Outcomes. The remaining two learning outcomes must be either two (2) Innovation Learning Outcomes or two (2) Entrepreneurship Learning Outcomes.

For the two (2) Innovation Learning Outcomes, at least one (1) must be one of the Required Innovation Learning Outcomes. The second Innovation Learning Outcome may be from the list of Additional Innovation Learning Outcomes or may be the other Required Innovation Learning Outcome that was not already selected to fulfill the requirement above.
For the two (2) Entrepreneurship Learning Outcomes, at least one (1) must be one of the Required Entrepreneurship Learning Outcomes. The second Entrepreneurship Learning Outcome may be from the list of Additional Entrepreneurship Learning Outcomes or may be the other Required Entrepreneurship Learning Outcome that was not already selected to fulfill the requirement above.

If the course is proposed as a general education course, it must also meet the learning outcomes associated with the appropriate general education category. Learning outcomes listed below are not reflective of the requirements for general education designations.

**Required General Learning Outcomes:**

*must meet both*

- Demonstrate an ability to reach innovative/unconventional solutions by iteratively proposing ideas/strategies/prototypes, receiving feedback, incorporating feedback and learning from failed approaches
- Demonstrate an ability to collaborate with others on developing an innovative analysis, project or solution, by incorporating different viewpoints and experiences

**AND**

**Innovation Learning Outcomes:**

*must meet two (2) with at least one (1) from the Required Innovation Learning Outcomes*

**Required Innovation Learning Outcomes**

- Demonstrate the design thinking processes required to formulate a project/question and develop a strategy for its solution or implementation
- Demonstrate the ability to present or perform the project (and proposed solution, if applicable) to outside stakeholders (those not directly affiliated with the class)

**Additional Innovation Learning Outcomes**

- Demonstrate an ability to solve real world challenges by critiquing existing applications of scholarship, learning from past successes and failures and identifying new or unexplored opportunities
- Demonstrate the ability to develop a minimal viable product/prototype (MVP)
- Demonstrate an ability to select, critically evaluate and apply innovative/ transformational thinking skills to a specific discipline

**OR**

**Entrepreneurship Learning Outcomes:**

*must meet two (2) with at least one (1) from the Required Entrepreneurship Learning Outcomes*

**Required Entrepreneurship Learning Outcomes**

- Demonstrate an ability to develop business models that create economic, social, or cultural value based on feedback from customers and the needs of the market
- Demonstrate an ability to reach innovative/unconventional solutions by iteratively proposing ideas/strategies/prototypes, receiving feedback, incorporating feedback and learning from failed approaches
• Demonstrate the ability to present the business idea to investors or other outside stakeholders

**Additional Entrepreneurship Learning Outcomes**

• Demonstrate the design thinking processes required to formulate a project/question and develop a strategy for its solution or implementation
• Demonstrate the ability to develop a minimal viable product/prototype (MVP)
• Demonstrate an ability to select, critically evaluate and apply entrepreneurship skills to a specific discipline

**Course Eligibility**

Courses that have previously received Fearless Ideas funding are not eligible to receive additional funding under this RFP. However, faculty who have previously received Fearless Ideas funding are welcome to submit proposals for other courses that have not previously been funded.

Since courses are reviewed based upon a submitted course proposal and syllabus, funding is not transferrable to a different course. If funding for a different course is desired, a new proposal must be submitted for competitive review during a subsequent Fearless Ideas RFP.

**Program Timeline & Requirements**

• Faculty participants whose Fearless Ideas course proposals are selected are nominally expected to teach the course at least two (2) different semesters (two sections during the same semester only count as one semester). Ideally, Fearless Ideas courses, especially those that become popular among students, will continue to be offered by departments on an ongoing basis. In cases where your Fearless Ideas course satisfies general education, minor, or major requirements, it may also help fulfill the teaching load obligations of your department.
• The initial course offering for selected Fearless Ideas courses must be completed by Spring 2017. The two offerings must be completed by Spring 2019 or the unused funding will be forfeited.
• Faculty are responsible for working with their departments/colleges to obtain course numbers and for scheduling the courses or obtaining general education designations. Approval of a course under this Fearless Ideas solicitation does not guarantee that the course will be approved for general education designations.
• Faculty who are awarded funding will be named Distinguished Academy for Innovation and Entrepreneurship Faculty. These faculty will join the AIE learning community and participate in regular curriculum development and best practice meetings.
• Fearless Ideas courses will also be listed and promoted in the following ways:
  o a Fearless Ideas designation in the Testudo Schedule of Classes (see illustration below)
A Fearless Ideas course listing including description and optional brochure and/or video if you provide one at http://ter.ps/iamFEARLESS. (see BMGT468T example at end of this document)

- (for Fearless Ideas courses that are open to students of all majors only) inclusion in the Fearless Ideas “Fortune Teller” Course Catalog distributed to students at First Look Fair and throughout the academic year (see illustration below)

- Your Fearless Ideas course will continue to be listed on Testudo, at http://ter.ps/iamFEARLESS, and in the Fortune Teller after the second course offering if the following conditions are met:
  - The course is taught by the same faculty member who was originally awarded the Fearless Ideas Funding
  - The content of the course does not deviate significantly from the course described in the original Fearless Ideas proposal.
<table>
<thead>
<tr>
<th>PHASES</th>
<th>FALL 2016 COURSES</th>
<th>SPRING 2017 COURSES</th>
<th>ACTIVITIES</th>
<th>REQUIRED</th>
<th>ADVISED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Proposal</td>
<td>Early September – Oct 28</td>
<td></td>
<td>Discuss course idea with AIE staff prior to submitting pre-proposal, email Erica (<a href="mailto:eestrad3@umd.edu">eestrad3@umd.edu</a>) to set up a meeting</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Submit Pre-proposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposal</td>
<td>Nov 13 – Jan 22</td>
<td></td>
<td>Meet with AIE staff &amp; receive guidance in developing course ideas into proposal. Give preliminary indication whether interested in AIE teaching support for Design Thinking/Lean Startup</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Submit Proposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notification</td>
<td>February 26</td>
<td></td>
<td>AIE will send out award notifications</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

### Course Development

<table>
<thead>
<tr>
<th>Course number</th>
<th>Fall 2016 &amp; Fall 2016</th>
<th>Spring 2016 &amp; Fall 2016</th>
<th>Work with your department to obtain course number, schedule courses</th>
<th>X</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One-on-ones</td>
<td>May 2016</td>
<td></td>
<td>Give final indication of interest in AIE teaching support for Design Thinking or Lean Startup and meet with AIE staff to create plan for further development &amp; refinement of course syllabus</td>
<td>X*</td>
<td></td>
</tr>
<tr>
<td>Intro to DT/LS Workshops</td>
<td>Spring &amp; Fall Semesters</td>
<td>Spring &amp; Fall Semesters</td>
<td>Attend either an Intro to Design Thinking or an Intro to Lean Startup workshop before the FI course is first offered</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Learning Community</td>
<td>Spring &amp; Fall Semesters</td>
<td>Spring &amp; Fall Semesters</td>
<td>Participate in the AIE Learning Community.</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Team Planning Meetings</td>
<td>Summer 2016</td>
<td>Fall 2016</td>
<td>Working session with AIE facilitators to integrate Design Thinking &amp; Lean Startup</td>
<td>X*</td>
<td>X</td>
</tr>
<tr>
<td>Course Implementation</td>
<td>Fall 2016</td>
<td>Spring 2017</td>
<td>Teach course &amp; wow the students!</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Course Debrief</td>
<td>Jan 2017</td>
<td>June 2017</td>
<td>Debrief course with AIE staff</td>
<td>X*</td>
<td>X</td>
</tr>
</tbody>
</table>

*Required for faculty that choose AIE teaching support for Design Thinking/Lean Startup
Design Thinking/Lean Startup Teaching Support

Faculty whose Fearless Ideas course proposals are selected are eligible to receive AIE teaching support for Design Thinking or Lean Startup. AIE teaching support includes working with an AIE Facilitator to strengthen the integration of Design Thinking or Lean Startup methodology throughout the course flow. The AIE Facilitator will also work with you to design curriculum (in-class sessions, homework and deliverables) appropriate for your course goals. The AIE Facilitator will help you teach sessions devoted to Design Thinking or Lean Startup, as well as help prepare you to eventually teach these sessions yourself. The exact timeline can be discussed on a case-by-case basis. Preliminary indication of interest in this AIE support should be given during the proposal phase, and final indication should be given during the one-on-one meetings for selected courses. Please contact Erica Estrada-Liou (eestrad3@umd.edu) if you have any questions about AIE teaching support.

Funding

Faculty participants whose Fearless Ideas course proposals are selected will receive $4,000 for the initial course offering in recognition of their contributions to improving undergraduate/graduate learning. To receive the $4,000, the course may be offered under a permanent course number or as a special topics course. An additional $2,500 will be available for the second offering of the course. Although not required to receive funding, we hope that faculty will submit the courses for VPAC approval to receive a permanent course number for the offering. Faculty have the option of using these funds for course expenses, salary or professional activities related to teaching and learning. Funds will be transferred to faculty departments following completion of the drop/add period for the semester in which the course is offered.

Fearless Ideas courses are awarded $4000 or $2500 as described above. The amount awarded is independent of the number of co-instructors or the number of departments offering the course. Cross-listed courses count as a single offering. If a course is co-taught by two or more departments, funds will be transferred to the lead department. The departments and co-instructors are responsible for determining how the funds are to be distributed to the other department(s). Similarly, if a course is co-taught by two instructors from the same department, the funds will be transferred to the department in support of the course and the faculty/department are responsible for determining how the funds are distributed between the co-instructors.

Following completion of the second offering of the course, the lead instructor will be required to complete a very short funding closeout form detailing key accomplishments resulting from course funding and summarizing how the funds were spent.

Pre-Proposal Requirements: Pre-Proposal DUE Wednesday, October 28th, 2015 (by 5PM)

If you have questions, please contact Kim Wallace (kkw03@umd.edu)

Pre-Proposals must include the following information:

1. Basic Information:
   - Faculty Name
   - Department
Fearless Ideas Courses Request for Proposals, Page 10 of 11

- Course Title
- Prerequisites (if applicable)
- Whether new or existing course
- Proposed course size and number of sections to be offered
- Proposed semester that the course will be offered

2. Course Description (200 words or less)

3. Description of how or what in your course fulfills each of the three attributes of a Fearless Ideas Course (200 words or less)

4. List of the four learning outcomes for your course and provide a brief description of how your course will meet each of the learning outcomes. Information for answering this question should be presented in a table as shown below:

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>How Your Course Will Meet This Learning Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

5. 100 word elevator pitch and/or link to a 1-minute video addressing the following scenario: Assuming that Testudo wasn’t available to alert students to your course offering and that you had to approach students at Stamp and recruit them to enroll in your course, how would you describe the course to the students? If your course is selected for funding, it will have a special designation in the Testudo online class schedule that links to the Fearless Ideas website at http://ter.ps/iamfearless. Your elevator pitch and/or video will be posted on that Fearless Ideas website to help promote your course to students.

6. An email from your Department Head approving the course

Pre-proposals should be emailed to Kim Wallace (kkw03@umd.edu). Department Heads should email their approvals directly to this email address.

Decisions from pre-proposals will be announced by November 13, 2015.

Proposal Requirements: DUE Friday, January 22, 2016 (by 5PM)

Final proposals will only be accepted from those selected from the pre-proposals. Proposals should not exceed 5 pages in length (excluding syllabus). All of the information below, with the exception of the Department Head and Dean approvals, should be compiled into a single pdf document for submission. Document should be saved as: [Faculty Last Name]-[Course Title].

Proposals must include the following information:

1. Basic Information:
   - Faculty Name
   - Department
   - Course Title
   - Prerequisites (if applicable)
Proposed course size
Proposed date of initial course offering
Whether new or existing course
2. Course Description (200 words or less)
3. Description of how the course fulfills each of the four learning outcomes
4. Description of how the course fulfills each of the three attributes of a Fearless Ideas course (shown on page 2)
5. Description of the teaching methods and strategies that you will use in the class
6. Description of the methods that will be used to assess student learning
7. A copy of the syllabus for the proposed course
8. Email endorsement from Department Head and Dean acknowledging their support of the course offering

Proposals should be emailed to Kim Wallace (kkw03@umd.edu). Department Heads/Deans should email their approvals directly to this email address.

Decisions from proposals will be announced by February 26, 2016

Key Dates
Completed pre-proposals are due no later than October 28, 2015. A completed pre-proposal is one that has been submitted and email endorsement from Department Head has been received. Approved courses from this round may be offered as early as Fall 2016.

RFP Released Early September
Pre-proposals Due: October 28, 2015
Approved Pre-Proposals Announced: November 13, 2015
Proposals Due January 22, 2016
Courses Selected February 26, 2016

Proposal Submission
Pre-Proposals, proposals and email endorsements/letters from Department Chairs and Deans should be sent to Kim Wallace (kkw03@umd.edu).

Contact Info

Erica Estrada-Liou Kim Wallace Dean Chang
Director of Curriculum and Director of Program Associate Vice President for
Student Experience Management Innovation and
estrad3@umd.edu kkw03@umd.edu Entrepreneurship
devan@umd.edu 301-314-0425 301-405-9063 301-314-8121

Academy for Innovation and Entrepreneurship | 3300 Symons Hall | innovation.umd.edu
Join other fearless and adventurous Terps for this revolutionary new creativity and product innovation class. Teams collaborate and compete to design the next generation of outdoor gear using state-of-the-art ideation and prototyping tools. While improving initial crude prototypes, field trips will help gain consumer insights and prove feasibility of the idea. We will spend a significant time outside the classroom “in the wild” to test and redefine the ideas. 3D printers and scanners will be at the ready to morph the ideas into real-world objects. The goal is to create a Kickstarter pitch for real-life funding and demonstrate our gear to a live audience of experts.
According to a recent IBM Consulting study, Creativity is the most desired trait by business leaders - yet there are very few opportunities in College to improve this skill. In this results-oriented course, teams of students will use creativity, ingenuity, innovation and out-of-the-box thinking to design highly innovative new outdoor equipment.

The course is derived from the very successful MBA class “Creativity for Business Leaders” at the Smith School of Business and features learning modules on creativity and innovation. New discoveries in cognitive research suggest that creativity under certain conditions while other can deprive human of this trait: Rooms with high ceilings, exposure to new knowledge and skills, staying outdoors, working environments with few constraints and collaboration with people skilled in other disciplines all increase creative performance. This class takes full advantage of those conditions: Students will work in multidisciplinary teams to design or improve an innovative outdoor product. Fieldtrips to outdoor retailers will provide a more in-depth understanding of consumer sentiment and we will leave the conventional classroom on several occasions to test and refine our ideas “in the wild.”

The course is open to students from all College Park colleges for qualified Sophomores, Juniors and Seniors. Class topics include:

- Using MindMaps for idea generation
- Product Innovation techniques (Scamper, Morphological Box, Continuous Improvement Process)
- How to pitch ideas and make them stick
- Consumer Need Segmentation
- Prototyping ideas (Sketching, 3D Modeling and Printing, Iterative Testing)

Expected Learning Outcomes

- Demonstrate an ability to collaborate with a diverse group of individuals to design a novel product utilizing different viewpoints and experiences.
- Demonstrate an ability to reach innovative solutions by iteratively proposing ideas, receiving feedback, incorporating feedback and learning from failed approaches.
- Demonstrate the ability to present or perform the project (and proposed solution, if applicable) to outside stakeholders (those not directly affiliated with the class).
- Reach a prototype for a minimal viable product (MVP) along with an initial model for market entry.
WHAT TO BRING TO CLASS

1. Absolute positive and can-do attitude.
2. Curiosity and desire to learn outside your comfort zone.
3. Ability to adapt to non-ideal working conditions (wet, cold, windy, wrong equipment, imperfect requirements)
4. Commitment to work intensively in teams for the majority of the time, but using your individual skills to the maximum to move the project forward.
5. Compete friendly with others in fairness and without anger
6. Self-starter mentality and drive to work unsupervised on your own schedule.
7. Willingness to experiment and iterate a solution until it meets expectations. The first shot will never be perfect.
8. Eager and flexible to make time for several class sessions outside the schedule.
9. Open to engage with professionals outside your personal networks.
10. Work significant time outside the class schedule to complete assignment.
11. Access to personal outdoor gear to spend a full day in potentially cold, wet and windy weather.
12. Risk of having to settle with less than ideal results
13. Talent to improvise and learn without specific instructions. There is no right solution to many problems.
14. Love of the outdoors.

SPECIAL SKILLS WANTED (but not required)

• Camping / Hiking
• Off-road travel
• Drafting / Sketching
• 3D Modeling
• Logistics
• Manufacturing
• Experiment Design
• Product Testing
• Marketing
• Retail Sales
• 3D Printing
• Business Model Canvas
• Video Editing
• Webdesign
• Social Media Campaigns
• Prototyping
• Entrepreneurship
• Product Marketing

DISCLAIMER
This is a highly experimental class. Not everything will be perfect.
If you accept this, I can promise you a unique class environment, a great learning experience and tons of fun.
OUTDOOR AS A CANVAS FOR LEARNING
Outdoor environments improve creative problem solving skills. Several research projects have proven that being “disconnected” for a while improves creativity by up to 50% is controlled.

HANDS-ON PRODUCT DESIGN AND PROTOTYPING
Prototyping is essentially an early stage product development process. Even for non-engineers, prototypes can be an effective tool for selling ideas to stakeholders. Furthermore, prototypes allow for initial product testing and customer acceptance of the idea. A prototype instantly generates emotional feedback and provokes immediate user interaction with the idea.

FIELD-TRIPS
Field trips enhance practical learning from the real-world. They also created a change in the learning environment. This class uses a field trip to get closer to the target audience: retail customers in outdoor product stores.

CREATIVITY SKILLS AND TOOLS
Techniques for idea generation will be introduced to induce out-of-the-box solutions. Creativity is a universal skill that can be taught and enhances student performance across the curriculum. Teaching these skills is hands-on, collaborative, spontaneous and fun.

INTERACTIONS IN THE REAL WORLD
Student are able to apply learning immediately through interactions with real-world actors and environments. The class will expose them to outdoor retailers, experts, the product user environment and other stakeholders.

ENTREPRENEURIAL MINDSET
Adventures are ventures. Focusing the class on building viable business ideas allows for a multidisciplinary class population (business, engineering, communication, computer science, etc.) and focuses the learning on an overall goal: Getting things done and make money!
<table>
<thead>
<tr>
<th>WEEK</th>
<th>CLASS TOPIC</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEEK 1</td>
<td>Kick-Off Meeting</td>
<td>Students assemble for the first time to form teams and develop a project timeline. Eight teams will be formed based on the skills present in the class. All teams receive handbooks with relevant class material and reading recommendations.</td>
</tr>
<tr>
<td>WEEK 2</td>
<td>Ideation</td>
<td>Using various creativity techniques, teams will brainstorm product categories and a first round of ideas.</td>
</tr>
<tr>
<td>WEEK 3</td>
<td>Market and Consumer</td>
<td>The class will take a field trip to a major outdoor retailer in the DC area (REI, LL Bean) to observe customers. A joint dinner is planned afterwards.</td>
</tr>
<tr>
<td></td>
<td>Research</td>
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<td>WEEK 4</td>
<td>Iteration</td>
<td>A new series of ideas is generated based on insight from the fieldtrip. Teams finalize their category and idea for the project.</td>
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<td>WEEK 5/</td>
<td>Prototyping</td>
<td>Using various prototyping techniques, the teams will create a set of early models. They also devise a series of experiments for the upcoming field testing day. Field testing will take place outside over a full Saturday.</td>
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<td>WEEK 6</td>
<td>Field Testing, Analog</td>
<td>Early prototypes will be tested in the field. Using only “old school” tools (paper, pen, analog camera, sketchbook), the teams will prepare their product pitches.</td>
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<td>WEEK 7</td>
<td>Pitch and Vote</td>
<td>All teams pitch their ideas to the class. The class will determine which 4 ideas will make it to the next round. The students will then choose the idea they want to take to the next level.</td>
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<td>WEEK 8/</td>
<td>Getting to MVP</td>
<td>Teams will continually improve the product idea, make inquiries for production, build business models and business plans around the ideas. With teams up to 8 students strong, project management is increasingly critical.</td>
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<td>WEEK 10</td>
<td>Making the idea stick</td>
<td>Students develop various marketing ideas and set up an early product website. With the help of legal advisers, potential patent applications are being considered.</td>
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<td>WEEK 11</td>
<td>Field Testing, Digital</td>
<td>Teams will test the most advanced prototypes in the field. For this fieldtrip, all tools are allowed. Teams will shoot footage for their final presentation and/or Kickstarter campaign.</td>
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<td>WEEK 12</td>
<td>Endorsements</td>
<td>Each team has to find a professional “product” endorser who can testament to the relevance and quality of the idea. The endorser can become a team adviser.</td>
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<tr>
<td>WEEK 13</td>
<td>Final presentation</td>
<td>Students present and demonstrate their products to a live audience. Non-UMD professionals are expected to attend.</td>
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OFFICIAL DESCRIPTION
Join other fearless and adventurous Terps for this revolutionary new creativity and product innovation class. Teams collaborate and compete to design the next generation of outdoor gear using state of the art ideation and prototyping tools. While improving initial crude prototypes, field-trips will help gain consumer insights and prove feasibility of the idea. We will spend a significant time outside the classroom “in the wild” to test and redefine the ideas. 3D printers and scanners will are at the ready to morph the ideas into real-world objects. The goal is to create a Kickstarter pitch for real-life funding and demonstrate our gear to a live audience of experts.

ENROLL: Open to students across the UMD campus from all majors with a minimum of 45 credit hours completed. SEATS: 32 seats available. TIME: Mondays, 8:00-10:45 am. Yes, it is early in the morning! ROOM: VMH 1206 (Van Munching Hall, Smith Business School) CONTACT: Oliver Schlake, Ph.D. 301-875-7747 oschlake@rhsmith.umd.edu Ask for full syllabus.

THE COOL STUFF

3D PRINTING
Students will have access to the latest MakerBot 3D-Printer to create and refine their own designs. If you have never worked with one, this is your chance. Those who have experience can tweak, experiment and print their own designs.

BASE CAMP OUTDOORS
The field-trips will feature a custom-made 35 people Tipi tent that has a wood-fired oven inside. No matter the weather, we can be outdoors in comfort.

OUTDOOR EXPERIENCE
We will test our ideas first-hand and will have experts on hand to give feedback.

KICKSTARTER / INDIGOGO CAMPAIGN
Assuming we have some great designs with potential for commercialization, we will start a real-life campaign (with the help of INDIGOGO consultants) to turn the idea into a real business. Students will own the designs and there is the potential to starting a real business. Successful Kickstarter Campaigner will join us for class sessions.

OUTDOOR GEAR
There will be plenty of outdoor gear available for inspiration as your instructor has a vast array of gadgets and gear assembled for this class.

MEDIA COVERAGE
Due to the unusual nature of the class, there has already been a huge amount of media interest. This is a great chance to shine and show the world what Terps can do when allowed to!