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 solutions 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% in controlled tests.

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 enhanced in the curriculum. Teaching these skills is hands-on, collaborative, spontaneous and fun.

INTERACTIONS IN THE REAL WORLD
Students 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!

Oliver Schlake, Ph.D. is a Distinguished Tyser Teaching Fellow at the Robert H. Smith School of Business. He joined Smith in 2006 and teaches Innovation Management, Entrepreneurship, Business Strategy and Creativity from the Undergraduate to the Executive Education level. He is also the faculty director for the Entrepreneurship Fellows Program at the Shady Grove campus. Before joining Smith, Oliver was CEO of a strategy and technology consulting firm, advising clients of new markets, new technology and innovative product designs. He has traveled extensively around the world, many times off-the-beaten-track with limited equipment. During his time in the German Army he served as survival trainer since the topic was not well known to the military at the time. He was inspired by Ruediger Nehberg, a German adventurer, survival expert and human rights activist. Both became friends after Oliver interviewed him for a newspaper article. Bear Grylls is merely at the apprentice level compared to Nehberg.

This class brings together his love for the outdoors and a passion for gadgets. Not only does nature stimulate creative thought, nature is also a relentless judge: can’t make a fire in the rain and you will stay cold: instant feedback.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>CLASS TOPIC</th>
<th>ACTIVITIES</th>
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</thead>
<tbody>
<tr>
<td>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>
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<tr>
<td>2</td>
<td>Ideation</td>
<td>Using various creativity techniques, teams will brainstorm product categories and a first round of ideas.</td>
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<tr>
<td>3</td>
<td>Market and Consumer Research</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>
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<td>4</td>
<td>Iteration</td>
<td>A new series of ideas is generated based on insight from the field trip. Teams finalize their category and idea for the project.</td>
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<tr>
<td>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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<tr>
<td>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>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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<tr>
<td>8/9</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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<tr>
<td>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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<tr>
<td>11</td>
<td>Field Testing, Digital</td>
<td>Teams will test the most advanced prototypes in the field. For this field trip, all tools are allowed. Teams will shoot video footage for their final presentation and/or Kickstarter campaign.</td>
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<tr>
<td>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>13</td>
<td>Final presentation</td>
<td>Students teams present and demonstrate their products to a live audience. Non-UMD professionals are expected to attend.</td>
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</tbody>
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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 an 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!