



Human Factors Engineering

Designing for the Human

MIT IAP 2018

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Office Hours

By appointment

Class Information

Welcome to Human Factors Engineering!

In this class, you will learn the fundamentals of Human Factors in engineering and design. In addition to daily lectures, we will have a Human Factors or Design expert speak, explaining how Human Factors and Human-Centered Design is put to use in their own work. You will harness your new knowledge in a team human-centered redesign of a common tool, device, or interface. For the final class, each team will submit documentation of their creation, give a short presentation, and be judged by a panel of experts. All teams will be featured in the class website. The winning team will receive publicity for their design: write ups at both MIT and in the popular press.

Location

Our class is located in IDC N52 337. The IDC is located in MIT building N52 on the third floor. The entrance is next to the MIT Museum on Front St. just off Mass. Ave.

Course Schedule

You may show up to the IDC early to work on your redesign or for training in one of our workshops. Please see the workshop training PDF for more information. Class will run from 3:30 to 5:00 PM, including a 30 min lecture, a 15-30 min guest talk by prominent Human Factors practitioner, and the remaining time to work with your teams.

Lecture Topic	Guest Speaker
1/16 The HF Primer: Centering Design on the Human	Adam Emfield, Nuance, Principal UX Lead
1/17 Human-Machine Teaming: Trustworthy Automation and Autonomy	David Moore, NHTSA, Human Factor Division Chief
1/18 Designing to Maximize Human Performance	Joe Coughlin, MIT AgeLab, Director
1/19 Augmenting Reality: Understanding Environment as Interface	Ashley Nunes, MIT, HF Journalist & Scientist
1/22 Discussion, Final Presentations, Awards, Food	

Team Goal

At the end of first day of class we will reveal the population for whom we will be designing. Each team will be to choose a common tool, device, or interface and reimagine it for this population.

Deliverables

- By the end of class on 1/17, each team must identify a common tool, device, or interface to redesign. The team will then work to demonstrate it through a sketch, model, physical prototype, etc.
- Each day you will have the opportunity to upload photos or text updates of your team's progress. These will be made available on the class website, and to the judges.
- By 11:59pm on 1/21, each team must upload 1) five images of the redesign, 2) one image of the team, 3) up to 300 words on the redesign, 4) up to 500 words on how human-centered and human-factors concepts guided your team.
- On 1/22 each team will present to the class for 5 minutes. They will also have an opportunity to show judges their sketch, model, physical prototype, etc.
- The winning team will be interviewed by email, and potentially phone, regarding their work.