

# Syllabus

Sunday, June 11, 2023 10:26 PM

## Course

- Semester: SU23
- Catalog Number: cs4390
- Title: Special Topics: Research Support for Disruptive Engineering
- Instructor: Eric Freudenthal, efreudenthal@utep.edu

Microsoft teams: Use code ugyxxf9 to join.

## Texts: free

CITI training for [Human Subjects Research](#)  
[Good Clinical Practice Course](#)  
[Talking to Humans](#)  
[Testing with Humans](#)

## Summary:

]Technologies are described as disruptive when they significantly alter the way that consumers, industries, or businesses operate. Tech startups often fail because their early implementations are more problematic than useful and don't integrate well into their intended users' day-to-day activities.

This course examines research strategies that identify these risks, and then exploit this knowledge to refine research questions and design objectives.

These strategies are commonly taught in incubators for developers of new and disruptive technologies such as NSF's ICorps program.

If practical, the course will also examine techniques for monitoring and assessing neural signaling. This monitoring can expose indicators of perception and mood which users may not be aware of but nonetheless affect their attitudes and decisions, and therefore can inform this iterative design process.

Reference texts: "Talking to Humans" and "Testing with Humans" by Giff Constable Free pdf downloads are available for academic users such as students attending this course.

## Course structure

- In this course, students will examine challenges in converting technology innovation into disruptive products
- Students will study relevant themes and then apply them in the context of market analysis and testing.
- Themes
  - Introduction
  - Ethics in research
  - Market Studies
  - Testing
- Expectations: Students will
  - complete all assigned readings & trainings on time
  - participate in activities (e.g. selecting tech/product; planning , conducting market study interviews, analyzing and presenting results) during prescribed time periods
  - contribute to course online and in-person discussions

- Grading: Qualitative Assessment
  - Participation and preparation
  - Understandings of course themes and ability to productively apply them.
  - Disabilities and Accommodations
    - If you have a disability and need classroom accommodations, please contact The *Center for Accommodations and Support Services* (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at [www.sa.utep.edu/cass](http://www.sa.utep.edu/cass).
    - Students are expected to conduct themselves in a professional and courteous manner, as prescribed by the Standards of Conduct: [http://hoop.utep.edu/Student\\_Affairs\\_Chapter\\_One-HOP.htm](http://hoop.utep.edu/Student_Affairs_Chapter_One-HOP.htm)
  
- Academic Honesty
  - By default, **collaboration and use of 3rd party resources is not permitted** when preparing solutions to problems posed during in-class **tests, quizzes and 1-on-1 coaching sessions**.
  - Students are **strongly encouraged to collaborate and utilize online resources** when preparing for class. See section on lab projects (above) for details.
  - It is academic dishonesty for students to claim others' creative work as their own.
  - If academic dishonesty is suspected: The [student conduct office](#) will be contacted for adjudication. A temporary "incomplete" grade will be issued if their investigation extends beyond the grading period.