

PSYCH 173-02, SPRING 2024
INTRODUCTION TO HUMAN FACTORS
Dr. Anthony D. Andre

Instructor: Dr. Anthony D. Andre
Classroom: DMH 355 / Zoom
Class Day/Time: TU/TH 12:00-1:45
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Email: anthony.andre@sjsu.edu | 800usability@gmail.com
Office Location: Tel or Zoom
Office Hours: By Appt (email me to make appt)
Textbooks: 1) D. Norman, **Design of everyday things.**
2) N. Stone, Chaparro, J. Keebler, Chaparro, McConnell: **Introduction to Human Factors: Applying Psychology to Design**
Prerequisites: Psychology Major, HIS Minor or by permission

Technology Requirements

You will need reliable access to the internet to access Canvas and Zoom (when needed) and to receive notifications and e-mails about the course. Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on the Canvas site. You are responsible for regularly checking with the messaging system through one.sjsu.edu. I recommend using the Canvas student app on your smartphone as well.

Class Type

Class type is both in person and via Zoom. Most weeks, we will be via zoom on Tuesday and in person on Thursday, however, don't make assumptions. I will always let you know at least one week ahead of time how the next week's classes will be delivered. Also, occasionally we may have an asynchronous zoom class (recording and file).

Use of Webcam when in Zoom

I expect students to be able to share their webcam when asked to do so, and anytime you are asking a question or presenting to the class. If you have special circumstances that would prevent you from doing this, or makes it difficult to do, please communicate with me privately at the start of the semester. Do NOT enter the zoom and then leave the room or otherwise attend to something else.

Class Recordings and Lecture Files

When class is conducted using Zoom I usually record each class and post for your later viewing and review. This is NEVER a substitute for attendance and interaction. Students may NOT record any lectures. Any class recordings created by the instructor in addition to other files (syllabus, lecture files, quizzes, exams, assignments) are the property and copyright of the instructor. Neither can be shared, posted, published, presented, uploaded, or otherwise used

for any purpose other than to study for the course (and for later professional reference) or by any person other than the student. I will often record lectures, but I cannot guarantee that any given lecture will be recorded for later viewing.

Important: If you do NOT consent to your name, image or video to appear in a class recording, please let me know. Otherwise, I will assume you consent to your name, image or video appearing (when shown) in class recordings.

Course Description

This course is designed to provide an introduction to human factors psychology, covering theory and application of human factors to a wide array of everyday products and systems. A major focus of this course is on ways to design new technology that is easy to learn and use. The textbook and lectures will be the primary sources of information in the course, but a good deal of understanding must also come from each student's thoughts and insights on the everyday systems and products with which they interact. The course has 3 main phases: 1) Human Factors Awareness, 2) Human Factors Theory, and 3) Human Factors Application. Throughout the course students will be exposed to real-world examples of universal usability principles across a variety of products and domains.

Course Learning Objectives

- Students will gain awareness of human factors applications.
- Students will have a clear understanding of how humans process information and use this information to interact with products/artifacts.
- Students will learn about various human factors evaluation methods.
- Students will know several universal usability principles and be able to apply these principles toward evaluating products and systems for ease of use.
- Students will learn how to write and organize a usability heuristic evaluation report.

Program Learning Objectives

- Students will be able to demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- Students will be able to use critical and creative thinking, skeptical inquiry, and a scientific approach to address issues related to behavior, perception and cognitive processes.
- Students will be able to apply psychological principles to individual, interpersonal, group, and societal issues.
- Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

Course Requirements and Assignments

Grade Breakdown

Assignment	Percentage of Final Grade
Short Assignments and Presentation	15%
Usability Evaluation Report	35%
Mid-Term 1 (Book 1)	25%
Mid-Term 2 (Book 2)	25%

Grading Scale

% Score	Grade
93%+	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
69% and lower	D-F

Dropping and Adding

Students are responsible for understanding the policies and procedures about Adds, drops, academic renewal, etc. Information on add/drops are available at <http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-298.html>. Information about late drop is available at <http://www.sjsu.edu/sac/advising/latedrops/policy/>. Students should be aware of the current deadlines and penalties for adding and dropping classes.

Attendance

I expect you to attend all classes, when possible. If you need to miss a class, please let me know by email and then obtain notes from another student.

Participation

Participation in class discussions, breakout rooms and exercises is very important. If you are not participating enough in the class discussions, or asking questions, I will let you know.

Classroom/Zoom Protocol

I expect students to approach class in a professional manner and to comply with the following:

- Please be on time to class.
- Please enter your actual name in your Zoom account so that it shows on the screen. Do not show anything but a picture or video of yourself (no cartoons, anime, other content).
- Be prepared to show yourself on video when called for and when presenting to the class.

Review and Preparation Activities: In addition to engagement with the learning environment of the classroom, you will be required to independently prepare yourself for future classes by various out of class review and preparation activities. The university definition of a credit hour suggests that “Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.”

Late work

- All work must be turned in on time. All assignments will be penalized a letter grade for every day they are late.
- There are no makeup exams, except for unplanned emergencies.

Disabilities

- Please inform me of any disabilities or special needs/considerations at the start of the semester and prior to February 1, 2022.
- If a special need or accommodation emerges during the semester, please inform me immediately.

University Policies

Academic integrity

Academic Integrity

I do not tolerate any forms of academic dishonesty in my courses. I take issues of academic dishonesty very seriously and pursue disciplinary action rigorously, so please take extra care to avoid this sort of unpleasant situation. Any instances of cheating on exams results in an automatic 0 for the exam. Plagiarized assignments automatically receive a score of 0. I reserve the right to fail a student in the course if the academic dishonesty transgression is particularly severe. All instances of academic dishonesty are reported to the Office of Student Conduct and Ethical Development (SCED). Students may appeal any accusations of cheating or plagiarism to SCED. Your commitment as a student to learning is evident by your enrollment at San Jose State University. The [University Academic Integrity Policy S07-2](http://www.sjsu.edu/senate/docs/S07-2.pdf) at <http://www.sjsu.edu/senate/docs/S07-2.pdf> requires you to be honest in all of your academic

coursework. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>. Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all exams and assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy S07-2 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, please make an appointment to speak with me as soon as possible. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the [Accessible Education Center \(AEC\)](http://www.sjsu.edu/aec) at <http://www.sjsu.edu/aec> to establish a record of their disability.

COURSE SCHEDULE
(subject to modification)

DATE	TOPIC	READINGS/MATERIAL DUE
1/25 (TH)	Who, what, why, where of Human Factors	Chapter 1: Book 2
1/30	Who, what, why, where of Human Factor	Chapter 1: Book 2
2/1	In-Class Exercise	
2/6	The Psychopathology of Everyday Things	Book 1: Chapter 1
2/8	The Psychology of Everyday Actions	Book 1: Chapter 2
2/13	The Psychology of Everyday Actions	Book 1: Chapter 2
2/15	Knowledge in the Head and in the World	Book 1: Chapter 3
2/20	Knowing What to Do: Constraints, Discoverability, and Feedback	Book 1: Chapter 4
2/22	Human Error? No, Bad Design	Book 1: Chapter 5
2/27	Design Thinking	Book 1: Chapter 6
2/29	Design in the World of Business	Book 1: Chapter 7
3/5	Mid-Term 1 Review and Discussion Assignment 1: Product Usability Evaluation Report	
3/7	Mid-Term #1 (Book 1)	Mid-Term 1
3/12	Visual, tactile and olfactory displays	Book 2: Chapter 3
3/14	Visual, tactile and olfactory displays	Book 2: Chapter 3
3/19	Human factors evaluation methods	Book 2: Chapter 5
3/21	Human factors evaluation methods Assignment 2: Usability Evolution	Book 2: Chapter 5
3/26	NO CLASS	
3/28	Prerecorded Lecture (No Class) Assignment 2 Due: Usability Evolution	Book 2: Chapter 6
4/2	NO CLASS SPRING BREAK	
4/4	NO CLASS SPRING BREAK	
4/9	Attention, memory and multi-tasking	Book 2: Chapter 6
4/11	Motor skills and control	Book 2: Chapter 8
4/16	Usability Principles	
4/18	Human error	Book 2: Chapter 8
4/23	Usability Evaluation Reporting	Book 2: Chapter 11
4/25	NO CLASS (work on report)	
4/29 (Monday)	Assignment 1 Due: Usability Evaluation Report	

4/30	Student Presentations	
5/2	Student Presentations	
5/7	Student Presentations	
5/9 (TH)	Course Wrap Up Mid-Term 2 Review Final Q&A	
5/20	Mid-Term #2 (Book 2) 9:45AM	Mid-Term 2