



## Syllabus for SIE 410 Human Factors and Ergonomics Fall 2021

This class is scheduled to be taught in the flex in-person modality.

- **Class meetings**
  - In-person meeting times and locations: M/W 4:30 pm to 5:45 pm in AME room s212
  - Classes will be recorded on zoom.
- **Classroom attendance:**
  - If you feel sick or may have been in contact with someone who is infectious, stay home. Except for seeking medical care, avoid contact with others and do not travel.
  - Notify your instructor(s) if you will be missing a course meeting or an assignment deadline.
  - Non-attendance for any reason does **not** guarantee an automatic extension of due date or rescheduling of examinations/assessments.
    - Please communicate and coordinate any request directly with your instructor.
  - If you must miss the equivalent of more than one week of class, you should contact the Dean of Students Office [DOS-deanofstudents@email.arizona.edu](mailto:DOS-deanofstudents@email.arizona.edu) to share documentation about the challenges you are facing.
  - Voluntary, free, and convenient [COVID-19 testing](#) is available for students on Main Campus.
  - COVID-19 vaccine is available for all students at [Campus Health](#).
  - Visit the [UArizona COVID-19](#) page for regular updates.
- **Academic advising:** If you have questions about your academic progress this semester, please reach out to your academic advisor (<https://advising.arizona.edu/advisors/major>). Contact the Advising Resource Center (<https://advising.arizona.edu/>) for all general advising questions and referral assistance. Call 520-626-8667 or email to [advising@arizona.edu](mailto:advising@arizona.edu)
- **Life challenges:** If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The [Dean of Students Office](#) can be reached at (520) 621-2057 or [DOS-deanofstudents@email.arizona.edu](mailto:DOS-deanofstudents@email.arizona.edu).
- **Physical and mental-health challenges:** If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520) 621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.
- **Exams and Assessments:** Quizzes and exams will be on D2L. Final exam information: Tentatively Friday 12/10/21, 4:30 pm to 6:30 pm (need to confirm this).
- **Equipment and software requirements:** For this class you will need daily access to the following hardware: laptop or web-enabled device with webcam and microphone; regular access to reliable internet signal.
- **Class Recordings:** will be available on D2L. You are encouraged to attend each class and participate. If you can't attend, then watching the recorded class is the next best option.



- Office hours and contact info
  - Dave Wood MS, MSIE, CPE, CSP, Lecturer.
    - Email: [ergodave@email.arizona.edu](mailto:ergodave@email.arizona.edu)
    - Office hours: immediately after every class
  - Alexis Hurtado, Graduate Student Grader
    - Email: [alexushurtado@email.arizona.edu](mailto:alexushurtado@email.arizona.edu)
    - Topic: SIE 410 TA Office Hours- Alexis
    - Time: Weekly on Tuesday 5:00 - 6:00pm
    - <https://arizona.zoom.us/j/9848986636>
  - James Wilson, Undergraduate Grader
    - Email: [jameswilson14@email.arizona.edu](mailto:jameswilson14@email.arizona.edu)
    - Office hours: Tues/Thur 10 to 11 am

#### Course grading

Type	Number	Best	Value
Quiz's	6	5	25
Reports	4	3	21
Exams	2	2	44
Participation	15	10	5
Flash cards	6	5	5
			100 Total

Extra credit for more than 10 participations (up to 2.5%)

- **Staying current:** You are required to complete 3 group projects on your own time to gain practice and experience using evaluation methods presented in class. The class will be divided into 5 person teams for group projects which will be completed outside of class time. You are strongly encouraged to buy and read our textbook. We will cover all 18 chapters sequentially.
- Please see our detailed class schedule which describes what we will do on each assigned class session listed below (\* Subject to changes and adjustments).



Day	Date	Chap	Topic	Quiz/Exam	Report Due	Comments & key points
M	8/23/21	NA	Welcome/introduction			training chapter 17
W	8/25/21	1	HFE Overview			Taylorism, history
M	8/30/21	2	Design methods			
W	9/1/21	3	Evaluation methods			
M	9/6/21	NA	Labor Day holiday - no class			
W	9/8/21	4	Quiz & Vision and legibility	1 Chap 1-3*		Visual angle & acuity
M	9/13/21	4	Vision and legibility			
W	9/15/21	5	Auditory, Tactile, and Vestibular Systems			
M	9/20/21	5	Auditory, Tactile, and Vestibular Systems			Noise assessment
W	9/22/21	6	Micro cognition			Multiple resource theory
M	9/27/21	6	Micro cognition		Legibility Assessment	
W	9/29/21	7	Quiz & Macro cognition	2 Chap 4-6*		
M	10/4/21	7	Macro cognition			
W	10/6/21	8	Displays			
M	10/11/21	9	Controls		Noise Assessment	
W	10/13/21	NA	Quiz & Review for mid term chap 1 to 9	3 Chap 7-9*		
M	10/18/21	NA	Mid term exam	Chap 1-9		open book, open notes
W	10/20/21	10	Human Computer Interaction			
M	10/25/21	11	Automation			
W	10/27/21	12	Anthropometry			
M	11/1/21	12	Anthropometry			
W	11/3/21	13	Quiz & Biomechanics	4 Chap 10-12*		
M	11/8/21	13	Biomechanics			NIOSH lifting equation
W	11/10/21	14	Work Physiology			
M	11/15/21	15	Stress		Ergo Assessment	
W	11/17/21	NA	Guest speaker - Universal Design (UD)			will be on final
M	11/22/21	16	Safety	5 Chap 13-15*		Quiz covers UD too
W	11/24/21	16	Safety			JHA
M	11/29/21	17	Selection and training		Safety Assessment	
W	12/1/21	18	Organization design			macro ergonomics
M	12/6/21	NA	quiz	6 Chap 16-18*		
W	12/8/21	NA	Review, for final chap 10 to 18			
F	12/10/21	NA	Final	Chap 10-18		open book, open notes

\*upload digital photos of your flash cards the day *before* each quiz