

New Jersey Institute of Technology
Department of Mechanical and Industrial Engineering

IE 355-102 Human Factors in Industrial Engineering, Fall 2023
Class Schedule: Thursday 6:00 – 9:00 pm -- Location: Central King Building 317

Instructor: Prakash Kothari, CIH, CSP, SMS, MS-OSHE
(973) 602-7172 pak24@njit.edu Office hours: 30 min after each class TBD

Lecture	Date	Topic	Readings
1	Sep 11	Introduction, History, & Systems	Ch. 1 Ch. 3: pp. 54-58 & 65-68
2	Sep 18	Human Information Processing Assignment: Quiz 1	Ch. 4
3	Sep 25	Methods Assignment: Quiz 2	Ch. 2 Ch. 3: Box 3.1 pp. 69-70
4	Oct 02	Visual & Auditory Perception Assignment: Quiz 3	Ch. 5 Ch. 7
5	Oct 09	Memory, Attention, & Mental Workload Assignment: Quiz 4	Ch. 9 Ch. 10
6	Oct 16	Decision Making Assignment: Quiz 5	Ch. 11 Ch. 12: pp. 327-328 Ch. 12: Box 12.1 pp. 331-333
	Oct 23	Midterm Exam	
7	Oct 30	Static, Dynamic, & Auditory Displays Assignment: Quiz 6	Ch. 8
8	Nov 6	Controls & Tracking Assignment: Quiz 7	Ch. 15 Ch. 16: Box 16.1 pp. 443-444
9	Nov 13	Compatibility Assignment: Quiz 8	Ch. 13
10	Nov 20	Cognitive & Motor Skills Assignment: Quiz 9	Ch. 14 Ch. 12: pp. 316-327
11	Nov 27 Mon	Hand Tools, RSI, & Anthropometry Assignment: Quiz 10	Ch. 16
12	Dec 4	Human Error, Accidents, & Warnings Assignment: Prepare your presentations	Ch. 3 Ch. 19: pp. 549-551
	Dec 4	Project Presentations	
	Dec 18	Project Papers Due	
		Final Exam (Grades posted on Dec 25)	

Textbook: Robert W. Proctor & Trisha Van Zandt (2017) *Human Factors in Simple and Complex Systems*, Third Edition. CRC Press ISBN 978-1482229561

- All required readings are in the textbook
- Yes, you need a copy of the textbook
- The text can be purchased or rented, also can be purchased or rented as a Kindle e-book

Evaluation:

- Midterm Exam – 25%
 - Lectures and reading up to exam day
 - Closed book and closed notes, in-class exam
 - Multiple choice and/or short written answer questions
 - No make-ups
- Weekly quizzes – in total: 25%
 - All quizzes are taken in class, No make-ups unless excused absence
- Final Exam – 25%
 - Second half of course
 - Closed book and closed notes, during final exam period
 - Multiple choice and/or short written answer questions
- Attendance and participation - 10%
- Project – 15%
 - Group project: groups of approximately 5 students
 - Topics reviewed via 1-paragraph written proposal (Print and Moodle/email)
 - Proposals due after midterm (proposals are not graded)
 - Presentations on last day of regular class (one per group)
 - Each group must also submit a single combined paper
 - Grade is combination of your paper and group presentation

I expect all students to follow the NJIT Student Honor Code (i.e. no cheating on exams); this is enforced.

Class Website: Canvas will be used for this class: <http://canvas.njit.edu/>

Canvas will be used for content distribution, distribution of homework, and general announcements. I do *not* plan to make much use of Moodle's interactive and chat features. Also I do not use Canvas for your semester grade, only for quizzes; *ignore* Canvas's overall grade reports.

Lecture slides will be available on Canvas in PDF format *on the morning of each lecture day*. Class announcements and study guides will also be made available on Canvas and through email.

“Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

<http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf>.

Please note that it is my professional obligation and responsibility to report any academic misconduct to

*the Dean of Students Office. **Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.** If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu*

Fall 2023 Academic Calendar

Sept	4	Labor Day. University Closed
Sept	5	First Day of Classes
Sept	11	Last Day to Add/Drop a Class
Sept	11	Last Day for 100% Refund, Full or Partial Withdrawal
Sept	12	W Grades Posted for Course Withdrawals
Sept	18	Last Day for 90% Refund, Full or Partial Withdrawal - No Refund for Partial Withdrawal after this date
Oct	2	Last Day for 50% Refund, Full Withdrawal
Oct	23	Last Day for 25% Refund, Full Withdrawal
Nov	13	Last Day to Withdraw from Classes
Nov	21	Thursday Classes Meet
Nov	22	Friday Classes Meet
Nov	23	Thanksgiving Recess Begins. No Classes
Nov	26	Thanksgiving Recess Ends
Dec	13	Last Day of Classes
Dec	14	Reading Day 1
Dec	15	Reading Day 2
Dec	16	Saturday Classes Meet
Dec	17	Final Exams Begin
Dec	23	Final Exams End
Dec	25	Final Grades Due