

*New Jersey Institute of Technology*  
*Department of Mechanical and Industrial Engineering*

IE 355-102 Human Factors in Industrial Engineering, Spring 2024

Class Schedule: Thursday 6:00 – 9:00 pm -- Location: Central King Building 303

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	Jan 18	Introduction, History, & Systems	Ch. 1 Ch. 3: pp. 54-58 & 65-68
2	Jan 25	Human Information Processing <a href="#">Assignment: Quiz 1</a>	Ch. 4
3	Feb 01	Methods <a href="#">Assignment: Quiz 2</a>	Ch. 2 Ch. 3: Box 3.1 pp. 69-70
4	Feb 08	Visual & Auditory Perception <a href="#">Assignment: Quiz 3</a>	Ch. 5 Ch. 7
5	Feb 15	Memory, Attention, & Mental Workload <a href="#">Assignment: Quiz 4</a>	Ch. 9 Ch. 10
6	Feb 22	Decision Making <a href="#">Assignment: Quiz 5</a>	Ch. 11 Ch. 12: pp. 327-328 Ch. 12: Box 12.1 pp. 331-333
	Mar 07	<b>Midterm Exam</b>	
7	Mar 21	Static, Dynamic, & Auditory Displays <a href="#">Assignment: Quiz 6</a>	Ch. 8
8	Mar 28	Controls & Tracking <a href="#">Assignment: Quiz 7</a>	Ch. 15 Ch. 16: Box 16.1 pp. 443-444
9	Apr 4	Compatibility <a href="#">Assignment: Quiz 8</a>	Ch. 13
10	Apr 11	Cognitive & Motor Skills <a href="#">Assignment: Quiz 9</a>	Ch. 14 Ch. 12: pp. 316-327
11	Apr 18	Hand Tools, RSI, & Anthropometry <a href="#">Assignment: Quiz 10</a>	Ch. 16
12	Apr 25	Human Error, Accidents, & Warnings <a href="#">Assignment: Prepare your presentations</a>	Ch. 3 Ch. 19: pp. 549-551
	May 02	<b>Project Presentations</b>	
	May 09	<b>Project Papers Due</b>	
		<b>Final Exam</b> (Grades posted on May 10)	

**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](mailto:dos@njit.edu)*

#### Spring 2024 Academic Calendar

January	15	Monday	Martin Luther King, Jr. Day
January	16	Tuesday	First Day of Classes
January	20	Saturday	Saturday Classes Begin
January	22	Monday	Last Day to Add/Drop a Class
January	22	Monday	Last Day for 100% Refund, Full or Partial Withdrawal
January	23	Tuesday	W Grades Posted for Course Withdrawals
January	29	Monday	Last Day for 90% Refund, Full or Partial Withdrawal, No Refund

for Partial Withdrawal after this date

February	12	Monday	Last Day for 50% Refund, Full Withdrawal
March 4	Monday		Last Day for 25% Refund, Full Withdrawal
March 10	Sunday	Spring Recess Begins - No Classes Scheduled - University Open	
March 16	Saturday	Spring Recess Ends	
March 29	Friday	Good Friday - No Classes Scheduled - University Closed	
March 31	Sunday	Easter Sunday - No Classes Scheduled - University Closed	
April 1	Monday	Last Day to Withdraw	
April 30	Tuesday	Friday Classes Meet	
April 30	Tuesday	Last Day of Classes	
May 1	Wednesday	Reading Day 1	
May 2	Thursday	Reading Day 2	
May 3	Friday	Final Exams Begin	
May 9	Thursday	Final Exams End	
May 11	Saturday	Final Grades Due	