

INDUSTRIAL PSYCHOLOGY-I (Revised)
ILOE (T.Y.B.Tech.) AS(ILE)- 17004

Teaching Scheme

Lectures: 2hrs/week

Examination Scheme

Total Marks: 100

Assignment & Interview: 40

End Semester Exam: 60

Course Education Objectives (CEO)

1. To introduce the essentials of psychology at workplace and gain insights about work place behavior
2. To understand the psychological functionality of an organization and employability of engineers in the 21st century
3. To learn and apply the elements of psychology at interpersonal relationships at work place and elsewhere

Course Outcomes (CO)

- a) Students will be able to outline the nature, scope, and challenges of Industrial Psychology
- b) Students will be able to illustrate the psychological factors that influence individual differences in behaviour at work
- c) Students will be able to explain the concepts of motivation and job satisfaction
- d) Students will be able to classify and utilize their knowledge In Psychology in the process of employment
- e) Students will be able to make use of the information required to sustain employability

Unit 1: Introduction to Industrial Psychology

[6 hrs]

1.1 Nature and Development of Industrial/Work Psychology

1.2 Historical background- Scientific Management, Time and Motion Study, Hawthorne Studies, World War I & II

1.3 Scope & Challenges: Current status

Unit 2: People at Work

[8 hrs]

2.1 Individual Differences: Personality, Intelligence, Emotional Intelligence, Creativity & Innovation, Perception & Attitudes

2.2 Motivation- N-Ach, Expectancy, Equity & Goal Setting Theories, Modern Approach to Motivation: Employee Predisposition, Expectations, Goals, & Incentives

2.3 Job Satisfaction- Job Characteristic Theory (Diagnostic Model), Measuring Job Satisfaction

2.4 Psychometric Testing at Work- Cognitive Abilities, Personality, Emotional Intelligence

Unit 3: Managing People at Work-I [8 hrs]

3.1 Employee Selection- Techniques, Fair Employment Practices

3.2 Recruitment- Biographical Information, Interviews, References & Letters of Recommendation

3.3 Job Analysis- Types, Newer Developments

Unit 4: Managing People at Work-II [4 hrs]

4.1 Performance Assessment: Evaluation & Appraisal- Objective & Subjective Techniques, Bias in Appraisals, Development Plans

4.2 Organizational Training- Types of Training, Psychological Issues

4.3 Career Development & Planning

Text Books:

1. Schultz, D. & Schultz, S. E. (2013). *Psychology and Work Today: An Introduction to Industrial and Organizational Psychology*. 7th Edition. Pearson Education: New Delhi.
2. Aamodt, M.G. (2013). *Industrial Psychology*. Cengage Learning: Delhi.
3. Matthewman, L., Rose, A. & Hetherington, A. (2009). *Work Psychology*. Oxford University Press: India.

References:

1. Landy, F. J. & Conte, J. M. (2010). *Work in the 21st Century: An Introduction to Industrial and Organizational Psychology*. 2nd Edition. Wiley India: New Delhi.
2. Schultz, D. & Schultz, S. E. (2002). *Psychology and Work Today*. Pearson Education: New Delhi.

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Course Outcomes (CO)

- a) Students will be able to outline and apply the elements of organizational culture for enhancing group/team behaviour
- b) Students will be able to explain the role of diversity in workforce and acknowledge the multicultural factors influencing workplace behaviour
- c) Students will be able to illustrate the physical and psychological aspects related to workplace in terms of environmental conditions, safety and health
- d) Students will be able to analyze the impact of psychological factors in consumer behaviour and role of conscious efforts needed in designing products
- e) Students will be able to demonstrate and utilize the knowledge gained through the concepts of Engineering Psychology with respect to their disciplines

Unit 1: Groups at Work

[8 hrs]

- 1.1 Understanding Group Behaviour- Group dynamics, Factors affecting Group performance, Group Conflict (types, causes, styles, resolving strategies)
- 1.2 Understanding Teams- Understanding work teams, Types of teams, Team development, Issues with teamwork
- 1.3 Leadership- Leader characteristics (traits, needs, orientation), Leader & situation (Fiedler's theory, Hersey Blanchard theory), Leader & follower (LMX theory); Specific leadership skills (decision making, contact, power, vision)
- 1.4 Diversity at Workplace- Multiculturalism- Hofstede's theory, Diversity dynamics; Cultural Differences in Psychometric assessment, Motivation, Work-related Attitude, Team work, Leadership)

Unit 2: Characteristics of Workplace

[4 hrs]

2.1 Working Conditions- Physical & Psychological

2.2 Stress- Nature, Symptoms, Causes of stress; Coping with occupational stress

2.3 Workplace Violence- the Violent worker, Bullying, Harassment

2.4 Safety Practices- Causes of accidents, Accident prevention, Safety audits

Unit 3: Consumer Psychology

[8 hrs]

3.1 Nature & Scope

3.2 Studying Consumer Behaviour- Surveys, Public Opinion Polls, Focus Groups, Observations of Shopping Behaviour, Neuromarketing

3.3 Advertising- Nature, Scope & Types

3.4 Consumer Behaviour & Motivation- Buying Habits, Product Pricing, Targeted Advertising

Unit 4: Engineering Psychology

[6 hrs]

4.1 Brief History

4.2 Person-Machine Systems- Basic Human Factors: Sensory systems- Visual (light, colour, night vision, depth perception), Auditory (sound, alarms, noise), Tactile & Vestibular senses

4.3 Workspace Designs- General Principles, Designing work areas; Machine Displays (visual & auditory); Machine Controls

4.4 Work Environment- Physical work environment & Anthropometry; Managing workplace strain through Ergonomics

Text Books:

1. Wickens, C. D.; Lee, J. D., Liu, Y. & Gordon Becker, S. E. (2015). *An Introduction to Human Factors Engineering*. 2nd Edition. Pearson Education: New Delhi.
2. Aamodt, M.G. (2013). *Industrial Psychology*. Cengage Learning: Delhi.
3. Schultz, D. & Schultz, S. E. (2013). *Psychology and Work Today: An Introduction to Industrial and Organizational Psychology*. 7th Edition. Pearson Education: New Delhi.
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