

St. Mary's College (Autonomous), Thoothukudi

Department of Psychology

Preamble

The Department of Psychology has been started in the academic year 2017 – 2018 as a self supporting course. It has been the first of its kind in Thoothukudi District to offer a regular Psychology course for the young women in and around Thoothukudi. It has been aptly started in the calendar year of “JOY”, to offer inner liberation and develop immense self esteem and happiness in the minds of the young women.

Vision:

To make young women powerful personalities and great sources of positivity.

Mission:

- To make Psychology a tool to empower women and make them mentally efficient so that they contribute to the development of the society.
- To empower students and make them psychologically strong individuals of the society.
- To conduct various Seminars and Conferences in the field of Psychology.
- To make known the value of Psychology so that even people from other disciplines may get benefitted.
- To conduct various Interactive Programmes with the society to be of use to the public.
- To develop the students into socially responsible citizens

UG Course Structure (2024-2027)

Programme Outcome

| PO. NO. | Upon completion of the Undergraduate Programme, the students of St. Mary's College will be able to |
|---------|---|
| PO-1 | acquire an in-depth domain knowledge and a comprehensive knowledge of various disciplines to become skilled professionals |
| PO-2 | enrich their communicative skills, and enhance their creative, numerical, analytical and problem-solving skills |
| PO-3 | gain potential skills to excel in digital literacy, team management, scientific reasoning, research and self-directed life-long learning to emerge as entrepreneurs |
| PO-4 | be aware of the environment with a social responsibility for the well-being of humanity and the planet at large |
| PO-5 | be an empowered, economically independent woman with a global perspective to emerge holistically in the egalitarian society |

Program Specific Outcome

| PSO. No. | Upon completion of B.Sc. Programme, the students will be able to | PO mapped |
|-----------------|---|------------------|
| PSO1 | acquire knowledge on key concepts and theoretical approaches and gain understanding of the origin and recent advances in the discipline. | PO 1 |
| PSO2 | describe multiple areas within psychology (e.g., social, cognitive, clinical, developmental, etc.), including theoretical perspectives, research findings, and their applications. | PO 2, 3 |
| PSO3 | think originally, utilize the knowledge and understanding of Psychology to develop, and test the theoretical concepts for applications in various arenas. | PO 2, 3 |
| PSO4 | design and conduct psychological studies using appropriate research methods and effectively communicate learned information | PO 3, 4 |
| PSO5 | use the relevant sources of scientific knowledge to identify and generate novel solutions for problems for enhancement of self and community and develop a range of generic skills and ethical principles that help in employment | PO 4, 5 |

St. Mary's College (Autonomous), Thoothukudi

Department of Psychology

UG Course Structure (w.e.f. 2024)

Semester – I

| Part | Components | Course Code | Course Title | Contact Hours / Week | Credits | Maximum Marks | | |
|------|------------------------------|-------------|---|----------------------|-----------|---------------|-----|-------|
| | | | | | | CIA | ESE | Total |
| I | Tamil / | 24ULTA11 | இக்கால இலக்கியம் : (செய்யுள், இலக்கணம், இலக்கிய வரலாறு, சிறுகதை) | 6 | 3 | 40 | 60 | 100 |
| | French | 24ULFA11 | Foundation Course French I | | | | | |
| II | General English | 24UGEN11 | Poetry, Prose, Extensive Reading and Communicative English I | 6 | 3 | 40 | 60 | 100 |
| III | Core I | 24UPSC11 | Introduction to Psychology I | 6 | 5 | 40 | 60 | 100 |
| | Core Practical I | 24UPSCR1 | Introduction to Psychology I | 2 | 2 | 40 | 60 | 100 |
| | Generic Elective I | 24UPSE11 | Biological Psychology | 4 | 4 | 40 | 60 | 100 |
| | Generic Elective Practical I | 24UPSER1 | Biological Psychology | 2 | 1 | 40 | 60 | 100 |
| IV | Skill Enhancement Course I | 24UPSSE1 | Self-developmental skills | 2 | 2 | 20 | 30 | 50 |
| | Ability Enhancement Course I | 24UAPS11 | Value Education | 2 | 2 | 20 | 30 | 50 |
| | | | Total | 30 | 22 | | | |

Semester – II

| Part | Components | Course Code | Course Title | Contact Hours / Week | Credits | Maximum Marks | | |
|--------------|-------------------------------|-------------|--|----------------------|-----------|---------------|-----|-------|
| | | | | | | CIA | ESE | Total |
| I | Tamil / | 24ULTA21 | சமய இலக்கியங்கள் : (செய்யுள், இலக்கணம், இலக்கிய வரலாறு) | 6 | 3 | 40 | 60 | 100 |
| | French | 24ULFA21 | Foundation Course: French II | | | | | |
| II | General English | 24UGEN21 | Poetry, Prose, Extensive Reading, and Communicative English II | 6 | 3 | 40 | 60 | 100 |
| III | Core II | 24UPSC21 | Introduction to Psychology II | 6 | 5 | 40 | 60 | 100 |
| | Core Practical II | 24UPSCR2 | Introduction to Psychology II | 2 | 2 | 40 | 60 | 100 |
| | Generic Elective II | 24UPSE21 | Psychology of Childhood | 4 | 4 | 40 | 60 | 100 |
| | Elective Practical II | 24UPSER2 | Psychology of Childhood | 2 | 1 | 40 | 60 | 100 |
| IV | Skill Enhancement Course II | 24UPSSE2 | Psychological First Aid | 2 | 2 | 20 | 30 | 50 |
| | Ability Enhancement Course II | 24UAPS21 | Environmental Studies | 2 | 2 | 20 | 30 | 50 |
| Total | | | | 30 | 22 | | | |

Semester III

| Part | Components | Course Code | Course Title | Contact Hours/Week | Credits | Maximum Marks | | |
|--------------|--|-------------|--|--------------------|---------|---------------|-----|-------|
| | | | | | | CI A | ESE | Total |
| I | Tamil / French | 24ULTA31 | காப்பிய இலக்கியங்கள்:செய்யுள், இலக்கணம், இலக்கிய வரலாறு, புதினம் | 6 | 3 | 40 | 60 | 100 |
| | | 24ULFA31 | French Literature and Grammar I | | | | | |
| II | General English | 24UGEN31 | English Poetry, Prose, Extensive Reading and Communicative English III | 6 | 3 | 40 | 60 | 40 |
| III | Core III | 24UPSC31 | Statistics for Behavioural Science | 4 | 4 | 40 | 60 | 40 |
| | Core Practical III | 24UPSCR3 | Statistics for Behavioural Science | 2 | 2 | 40 | 60 | 40 |
| | Generic Elective III | 24UPSE31 | Psychology of Adolescence and Early Adulthood | 4 | 3 | 40 | 60 | 40 |
| | Generic Elective Practical III | 24UPSER3 | Psychology of Adolescence and Early Adulthood | 2 | 1 | 40 | 60 | 40 |
| | NME I | 24UPSN31 | Psychology for life | 2 | 2 | 20 | 30 | 50 |
| IV | Skill Enhancement Course III | 24UPSSE3 | Communication and Presentation skills | 2 | 2 | 20 | 30 | 50 |
| | Ability Enhancement Course III | 24UAYM31 | Yoga and Meditation | 2 | 2 | -- | 50 | 50 |
| | Self-Study/ MOOC / Internship (Compulsory) | 24UPSSS1 | Stress management | | +2 | -- | 50 | 50 |
| Total | | | | 30 | 22+2 | | | |

Semester IV

| Part | Components | Course Code | Course Title | Contact Hours/Week | Credits | Maximum Marks | | |
|--------------|---|-------------|---|--------------------|---------|---------------|-----|-------|
| | | | | | | CI A | ESE | Total |
| I | Tamil / French | 24ULTA41 | சங்க இலக்கியங்கள்:செய்யுள், இலக்கணம், இலக்கிய வரலாறு, நாடகம் | 6 | 3 | 40 | 60 | 100 |
| | | 24ULFA41 | French Literature and Grammar II | | | | | |
| II | General English | 24UGEN41 | English Poetry, Prose, Extensive Reading and Communicative English IV | 6 | 3 | 40 | 60 | 100 |
| III | Core IV | 24UPSC41 | Introduction to Research Methodology | 5 | 5 | 40 | 60 | 100 |
| | Core Practical IV | 24UPSCR4 | Introduction to Research Methodology | 2 | 2 | 40 | 60 | 100 |
| | Generic Elective IV | 24UPSE41 | Psychology of Middle and Old age | 4 | 3 | 40 | 60 | 100 |
| | Generic Elective Practical IV | 24UPSER4 | Psychology of Middle and Old age | 2 | 1 | 40 | 60 | 100 |
| | NME II | 24UPSN41 | Emotional Intelligence | 2 | 2 | 20 | 30 | 50 |
| IV | Skill Enhancement Course IV | 24UPSSE4 | Personality Development | 2 | 2 | 20 | 30 | 50 |
| | Ability Enhancement Course IV (Entrepreneurial Based) | 24UAPS41 | Relaxation techniques | 1 | 1 | -- | 50 | 50 |
| V | NCC / NSS / Sports | | | | 1 | | | |
| | CDP – Extension Activity | | | | +1 | | | |
| Total | | | | 30 | 23+1 | | | |

Note: Ability Enhancement course 24UAPS41
Evaluation 20 : 30 will be done only by the department.

Internal and External examinations will be in the form of Practical / Presentation of models / Reports.

Semester V

| Part | Components | Course Code | Course Title | Contact Hours/Week | Credits | Maximum Marks | | |
|--------------|---|----------------------|--|--------------------|---------|---------------|-----|-------|
| | | | | | | CIA | ESE | Total |
| III | Core V | 24UPSC51 | Psychopathology I | 4 | 4 | 40 | 60 | 100 |
| | Core VI | 24UPSC52 | Cognitive Psychology | 4 | 4 | | | |
| | Core VII | 24UPSC53 | Organisational Psychology | 4 | 4 | 40 | 60 | 100 |
| | Core VIII | 24UPSC54 | Counselling Psychology | 4 | 4 | 40 | 60 | 100 |
| | Core Practical V | 24UPSCR5 | Psychopathology I and Cognitive Psychology | 4 | 2 | 40 | 60 | 100 |
| | Core Practical VI | 24UPSCR6 | Organisational Psychology and Counselling Psychology | 4 | 2 | 40 | 60 | 100 |
| | Discipline Specific Elective I | 24UPSE51 24UPSE52 | Sports Psychology/ Health Psychology | 4 | 4 | 40 | 60 | 100 |
| IV | Skill Enhancement Course V | 24UPSSE5 | Applications of Positive Psychology | 2 | 1 | 20 | 30 | 50 |
| | Self-Study / MOOC / Internship (Optional) | 24UPSSS2 | Human Rights | | +2 | -- | 50 | 50 |
| Total | | | | 30 | 25+2 | | | |

Semester VI

| Part | Components | Course Code | Course Title | Hrs/Week | Credits | Max. Marks | | |
|--------------|---------------------------------|-----------------------|---|----------|---------|------------|-----|-------|
| | | | | | | CIA | ESE | Total |
| III | Core VIII | 24UPSC61 | Psychopathology II | 5 | 5 | 40 | 60 | 100 |
| | Core IX | 24UPSC62 | Social Psychology | 5 | 5 | 40 | 60 | 100 |
| | Core X | 24UPSC63 | Educational Psychology | 5 | 5 | 40 | 60 | 100 |
| | Core Practical VII | 24UPSCR7 | Psychopathology II | 2 | 1 | 40 | 60 | 100 |
| | Core Practical VIII | 24UPSCR8 | Social Psychology and Educational Psychology | 4 | 2 | 40 | 60 | 100 |
| | Core XI (Project) | 24UPSP61 | Project and Viva Voce | 5 | 4 | 40 | 60 | 100 |
| | Discipline Specific Elective II | 24UPSE61/ 24UPSE62 | Forensic Psychology / Environmental Psychology | 4 | 4 | 40 | 60 | 100 |
| Total | | | | 30 | 26 | | | |

| SEMESTER I | | | |
|-----------------------|-------------------|-------------------------------------|------------------|
| Core I | | Introduction to Psychology I | |
| Code: 24UPSC11 | Hrs/Week:6 | Hrs/ Sem: 90 | Credit: 5 |

Objectives:

- To offer the students a comprehensive overview and understanding of the Origins, Goals, Research Methods and Fields of Specialization in Psychology.
- To make the students aware of the basic principles of sensation for vision, hearing, smell, taste and bodily senses.
- To enlighten the students about attention, emotion and experiences of daily life.

Course Outcome:

| CO No | Upon completion of this course, the person will be able to | CL |
|--------------|--|-----------|
| CO 1 | acquire knowledge on the history, methods and special areas in the field of Psychology | K2 |
| CO 2 | explain sensory systems through which information processing happens | K3 |
| CO 3 | relate the process of attention to perception and infer how we make sense of the world around us | K4 |
| CO 4 | critically examine the process of learning | K5 |
| CO 5 | gain insight into complex emotional experiences of human beings and analyse the experience of self in day-to-day life. | K1, K4 |

Unit I: Introduction to Psychology

Definition of Psychology. Nature of Psychology. Origin of Psychology. Philosophical origins: Early Indian and Greek thoughts, Major ideas of Descartes, Locke. Brief history of modern scientific Psychology: Structuralism, Functionalism, Behaviourism, Gestalt psychology, Piaget, Psychoanalysis, Cognitive approach. Scientific approach to Psychology

Unit II: Scope of Psychology

Goals of Psychology. Role of a psychologist in society. Branches of Psychology: Clinical Psychology, Industrial Psychology, Counselling Psychology, Developmental Psychology, Social Psychology, Positive Psychology, Sports Psychology, Health Psychology, Criminal Psychology, Gender Psychology, Biopsychology.

Unit III: Attention, Sensation & Perception

Attention: Definition, Factors affecting attention, Set in attention. Sensation: Definition, Types of sensation, Elements of Sensation. Perception: Definition, Gestalt Laws, Subliminal perception, ESP

Unit IV: Learning

Characteristics of Learning. Classical conditioning (Pavlov) - Principles involved, Significance, Operant Conditioning (B.F Skinner) – Principles involved, Significance, Trial and Error (Thorndike) Conditioning – Principles Involved, Significance, Insight learning (Kohler)- Principles Involved, Significance, Social Learning Theory (Bandura)- – Principles Involved, Significance.

Unit V: Emotion

Definition. Nature. Types. Physiological Responses-Arousal and Emotional Intensity. Theories: James Lange Theory, Cannon Bard Theory, Schachter-Singer Theory, Richard Lazarus' Theory. Communication of Emotion: Emotional Expression, Characteristics, Innate Expression of Emotions, Social Aspects of Emotional Expressions.

Recommended Text

1. Passer, M.W. & Smith R.E. (2007) *Psychology- The Science of mind and Behaviour* (3rd ed.) New Delhi: Tata McGraw-Hill Publishing Company Ltd
2. Baron, R.A. & Misra, G. (2017) *Psychology Indian Subcontinent Edition* (5thed.) India, U.P.: Pearson India Inc.
3. Ciccarelli, S.K., & White, J.N. *Psychology* 5thed. (2018). Adapted Misra, G. Noida: Pearson India Education Services Pvt Ltd
4. Hockenbury, D. H. & Hockenbury, S. E. (2003). *Psychology* (3rd ed.) New York: Worth Publishers.
5. Khatoon, N. (2012) *General Psychology*. Dorling Kindersley (India) Pvt Ltd

Reference Books

1. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (2007). Introduction to Psychology, 7th Edition. Singapore: Mc Graw- Hill.
2. Myers, D.G. (2004). Psychology. 5th Edition, Worth Publishers: New York.
3. Kalat, J. (2007) Introduction to Psychology, 8th Edition, Wordsworth Pub. Co.
4. Hilgard, E.R., Atkinson, R.L, R.C., (2003) Introduction to Psychology. 14th Edition Wordsworth Pub. Co
5. Feldman, R.S. (2006) Understanding Psychology, 6th Edition, Tata McGraw Hill, New Delhi

Website and e-Learning Source

1. Frontiers in Psychology (<https://www.frontiersin.org/journals/psychology>)
2. Archives of Scientific Psychology (<https://psycnet.apa.org/PsycARTICLES/journal/arc/6/1>)
3. BMC Psychology (<https://bmcp psychology.biomedcentral.com/>)
4. <https://www.psywww.com/careers/specialt.html> www.worthpublishers.com/hockenbury
5. <https://courses.lumenlearning.com/wsu-sandbox/chapter/gestalt-principles-of-perception/>

PSO Relation Matrix

| Course Outcome s | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|------------------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 |
| CO-2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 |
| CO-3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 |
| CO-4 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| CO-5 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 |
| Average | 2.6 | 2.6 | 3 | 2.2 | 2.8 | 2.6 | 2.6 | 3 | 2.2 | 2.8 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| | | | |
|-------------------------|-------------------|-------------------------------------|------------------|
| SEMESTER I | | | |
| Core Practical I | | Introduction to Psychology I | |
| Code: 24UPSCR1 | Hrs/Week:2 | Hrs/ Sem: 30 | Credit: 2 |

Minimum 5 experiments should be chosen from the given list and professional skills (compulsory) be taken for record writing and practice.

Professional skills

1. Quality of psychologist
2. Report Writing

Experiments

1. Muller-Lyer Illusion/Size Weight Illusion
2. Signal Detection
3. Habit interference
4. Transfer of Learning
5. Concept formation
6. Span of Attention
7. Paired Associate Learning
8. Distraction of Attention
9. Massed Vs Spaced Learning
10. Mood and Feelings Questionnaire

Book for Reference:

Dass, S. N. (2015). *Textbook of Experimental Psychology*. Sublime Publications India.

PSO Relation Matrix

| Course Outcomes | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|-----------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 |
| CO-2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 |
| CO-3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 |
| CO-4 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| CO-5 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 |
| Average | 2.6 | 2.6 | 3 | 2.2 | 2.8 | 2.6 | 2.6 | 3 | 2.2 | 2.8 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| SEMESTER I | | | |
|---------------------------|-------------------|------------------------------|------------------|
| Generic Elective I | | Biological Psychology | |
| Code: 24UPSE11 | Hrs/Week:4 | Hrs/ Sem: 60 | Credit: 4 |

Objectives:

- To place emphasis on the students' perspectives on research methods of Biological Psychology.
- To help students examine the structure and Communication of the cells of the nervous system and synaptic transmission.
- To make them understand the role of brain in regulating temperature, thirst and hunger

Course Outcome:

| CO No | Upon completion of this course, the person will be able to | CL |
|--------------|--|-----------|
| CO 1 | describe recent research methods and perspectives on the emerging field of Behavioural neuroscience and the reciprocal relationship between brain and behaviour. | K1 |
| CO 2 | understand anatomy and functions of the basic cell of the nervous system and explain the process of communication between neurons | K2 |
| CO 3 | understand and analyse the regulations of internal body states. | K3 |
| CO 4 | understand the function of endocrine glands and relate the knowledge to Analyse various human behaviour. | K1, K4 |
| CO 5 | describe the complex orchestrated functioning of the nervous system describe the manifestation of biological deficits in behaviour. | K5 |

Unit I: Biological Foundations of Behaviour

Introduction – Meaning of Biological Psychology, Biological explanation of behaviour, Mind Brain relationship, Recording brain activity, Research methods.

Unit II: Basics Of Nervous System and Neurotransmission

Development of nervous system, Central Nervous System, Peripheral Nervous System; Neurons – Structure, types; Brain – Structure, Divisions, Glial cells, Cerebrospinal fluid, Blood Brain barrier; Neurotransmitters – Meaning, Types, Events at synapse; Membrane Potential – Action potential and Resting potential.

Unit III: Regulation Of Internal Body States

Temperature – Homeostasis, Allostasis, Temperature regulations and Behaviour; Thirst – Maintaining water balance, Causes of thirst, Osmotic thirst and hypovolemic thirst; Hunger – Physiological mechanisms of hunger and satiety, Role of Hypothalamus.

Unit IV: Hormones And Behaviour

Hormones: Introduction and Definition. Principles of Hormones. Neural versus Hormonal Communication. Hormones: Classification by Chemical Structure. Endocrine Glands and its Specific Hormones: The Pituitary Gland; The Adrenal Gland; The Thyroid Gland; The Gonads; The Pineal Gland; The Pancreas and The Parathyroid Glands

Unit V: Brain Damage

Causes of Brain damage, Neurodegenerative diseases, Stress and illness.

Recommended Text

1. Kalat, J.W. (2011). *Biopsychology*. Delhi, India: Cengage Learning India Private Limited.
2. Pinel, J. (2007). *Biopsychology*. New Delhi, India: Pearson India Education Services Pvt Ltd.

Reference Books

1. Rosenweig, Breedlov, Leiman (2002): *Biological psychology*, 3rd edition, Sinaven Associate, Inc
2. Carlson, N.R. (2007). *Foundations of physiological psychology*. New Delhi, India: Pearson India Education Services Pvt Ltd.
3. Levinthal, C.F. (1996). *Introduction to Physiological Psychology* (3rd ed.) Prentice-Hall of India Pvt. Ltd. Psychology, 6th Edition, Tata McGraw Hill, New Delhi
4. Barnes, J. (2013) *Essentials of Biological Psychological*. New Delhi: Sage Publications Pvt Ltd

5. Bremnar, J.D. (2005) *Brain Imaging Handbook*. New York: W.W Norton & Company Inc.

Website and e-Learning Source

1. Behavioural and Brain Functions (<https://behavioralandbrainfunctions.biomedcentral.com/>)
2. Biological Psychology (<https://www.journals.elsevier.com/biological-psychology>)
3. <http://www.ecpdu.net/htmlfiles/uploads/2015/01/research-methods-in-biopsychology.pdf>
4. <https://www.khanacademy.org/science/biology/human-biology/neuron-nervous-system/a/overview-of- neuron-structure-and-function>
5. <https://www.khanacademy.org/science/biology/human-biology/neuron-nervous-system/a/the-synapse>

PSO Relation Matrix

| Course Outcome s | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|------------------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 2 | 3 |
| CO-2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 1 |
| CO-3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 1 |
| Average | 2.6 | 2.6 | 2.2 | 2.2 | 1.8 | 2.6 | 2.6 | 2.2 | 2.2 | 1.8 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| | | | |
|-------------------------------------|-------------------|------------------------------|------------------|
| SEMESTER I | | | |
| Generic Elective Practical I | | Biological Psychology | |
| Code: 24UPSER1 | Hrs/Week:2 | Hrs/ Sem: 60 | Credit: 1 |

Professional skills

1. Quality of psychologist
2. Report Writing

Case Study Analysis:

Provide case studies of individuals with brain damage due to various causes such as traumatic injury or neurodegenerative diseases. Students need to analyze the cases, identify the causes of brain damage, and discuss the behavioural and cognitive effects observed in each case.

PSO Relation Matrix

| Course Outcomes | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|-----------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 2 | 3 |
| CO-2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 1 |
| CO-3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 1 |
| Average | 2.6 | 2.6 | 2.2 | 2.2 | 1.8 | 2.6 | 2.6 | 2.2 | 2.2 | 1.8 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| SEMESTER I | | | |
|-----------------------------------|--------------------|--------------------------------|------------------|
| Skill Enhancement Course I | | Self-Development Skills | |
| Code: 24UPSSE1 | Hrs/Week: 2 | Hrs/ Sem: 30 | Credit: 2 |

Objectives:

- To offer the students a comprehensive overview and understanding of the Origins, Goals, Research Methods and Fields of Specialization in Psychology.
- The establish basic principles of sensation for vision, hearing, smell, taste and bodily senses.
- The help the students learn principles of Perception and Illusion.

Course Outcome:

| CO. No. | Upon completion of this course, the person will be able to | CL |
|----------------|---|-----------|
| CO 1 | acquire knowledge on the history, methods and special areas in the field of Psychology | K1 |
| CO 2 | explain sensory systems through which information processing happens | K2 |
| CO 3 | relate the process of attention to perception and infer how we make sense of the world around us | K3 |
| CO 4 | critically examine the process of learning | K4 |
| CO 5 | gain insight into complex emotional experiences of human being and analyse the experience of self in day-to-day life. | K5 |

Unit I: Self Awareness and Self-Motivation

Self-awareness building – SWOT Analysis – Johari Window Analysis – Self-confidence building; Motivation skills: self-motivation – motivation of others – Goal setting: SMART Goals – Immediate, Intermediate & Long term Goals.

Unit II: Aptitudes

Meaning and nature; Ability and achievement of aptitudes, Measurement and Utility of aptitudes.

Unit III: Emotional Regulation

Problem solving – critical thinking - creative thinking. Stress and Stressors–Characteristics of Emotions, Kinds of Emotions, Measurement of Emotions.

Unit IV: Anger Management

Conceptual definitions of Anger - Characteristics of anger - Forms of anger - Anger and the Related Diseases - Manifestations of anger - Causes of anger - Management of Anger: Simple Relaxation Techniques– Thought Stopping – Positive Self Talk – Cognitive Restructuring– Problem solving techniques.

Unit V: Time Management

Definition – Importance - The urgent versus-important dilemma - From goals to tasks - Time Management Styles: Four time styles - Time Management Techniques: Identifying Time Wasters - Advantages of Time Management.

Recommended Text

1. Swaminathan, V. D., & Kaliappan, K. V. Psychology for effective living: Behaviour modification, guidance, counselling and yoga. 2nd ed. Chennai: The Madras Psychology Society, 2001.

Reference Books

1. Hurlock, E.B. Personality Development, 28th Reprint, New Delhi: Tata McGraw Hill, 2006.
2. Shulman, L. Skills of helping: Individuals & groups. 1979.

PSO Relation Matrix

| Course Outcomes | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|-----------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 3 | 2 | 3 |
| CO-2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 1 |
| CO-3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 1 |
| Average | 2.6 | 2.6 | 2.2 | 2.2 | 1.8 | 2.6 | 2.6 | 2.2 | 2.2 | 1.8 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| SEMESTER II | | | |
|----------------|------------|-------------------------------|-----------|
| Core II | | Introduction to Psychology II | |
| Code: 24UPSC21 | Hrs/Week:6 | Hrs/ Sem: 90 | Credit: 5 |

Objectives:

- To make students examine the various spectrum of Cognition like problem –solving and Decision making.
- To help them understand the way memory works and stages of memory.
- To provide an overview of theories of motivation and its implication on behaviour for the students

Course Outcomes:

| CO No | Upon completion of this course, the person will be able to | CL |
|-------|---|--------|
| CO 1 | understand the different types of cognition and thinking processes and to analyse the steps in problem solving and decision making. | K2, K3 |
| CO 2 | summarize and compare the various functions and memory processes involved in memory and forgetting. | K4 |
| CO 3 | outline the various theories of motivation and to understand the implications of it. | K3 |
| CO 4 | explain the theories of intelligence and the ways to assess intelligence. | K4 |
| CO 5 | explore the various theories of Personality and examine the uses of personality assessments. | K5 |

Unit I: Cognition

Meaning – Cognitive Psychology- Types of cognition: – Mental Imagery – Concept, Problem solving- Steps- Barriers to Effective problem solving- Strategies of problem solving: Algorithms, Heuristic, Decision making – Step, Reasoning – Inductive and Deductive reasoning, Language: Nature - Main Components of Language – Phonemes Morphemes – Syntax - Semantics – Pragmatics.

Unit II: Memory

Definition. Nature of memory (Encoding, storage and retrieval) Memory encoding Attention, levels of Processing, Elaboration, Imagery. Memory storage – Sensory Memory, short –Term memory, Chunking and Rehearsal, working Memory, Long-Term Memory, Explicit Memory, Implicit Memory. Memory Retrieval – Retrieval Cues and retrieval tasks. Forgetting – Encoding Failure; Retrieval Failure; Memory and Study Strategies in encoding, storage and retrieval

Unit III: Motivation

Meaning, Definition, Motivation Cycle; Types of Motivation-Physiological Motivation – Hunger, Thirst, Psychological Motivation – Achievement, Affiliation, Power; Theories of Motivation – Need Theories – Maslow and ERG, Drive Reduction Theories

Unit IV: Intelligence

Definition. Intelligence as a process: Piaget. Structure of intelligence: Approaches of Spearman, Thurstone, Cattell. Triarchic approach. Multiple intelligences. Concept of IQ. Evolution of intelligence testing: Stanford-Binet, Wechsler scales. Extremes of intelligence: Mental retardation and giftedness. Determiners of intelligence: heredity and environment. Emotional intelligence.

Unit V: Personality

Definition, Determinants, Approaches – Psychoanalytic – Freud- Structuring Personality, Psychosexual stages of development, defence mechanism. Type approach – Jung’s typology, Trait theory – Allport; Eysenck and BIG Five; Assessment of personality – Objective, Subjective and Projective

Recommended Text

1. Passer, M.W. & Smith R.E. (2007) *Psychology- The Science of mind and Behaviour* (3rd ed.) New Delhi: Tata McGraw-Hill Publishing Company Ltd
2. Baron, R.A. & Misra, G. (2017) *Psychology Indian Subcontinent Edition* (5thed.) India, U.P.: Pearson India Inc.
1. Ciccarelli, S.K., & White, J.N. *Psychology* 5thed. (2018). Adapted Misra, G. Noida: Pearson India Education Services Pvt Ltd
2. Hockenbury, D. H. & Hockenbury, S. E. (2003). *Psychology* (3rd ed.) New York: Worth Publishers.
3. Khatoon, N. (2012) *General Psychology*. Dorling Kindersley (India) Pvt Ltd

Reference Books

1. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (2007). Introduction to Psychology, 7th Edition. Singapore: McGraw- Hill.
2. Myers, D.G. (2004). Psychology. 5th Edition, Worth Publishers: New York.
3. Kalat, J. (2007) Introduction to Psychology, 8th Edition, Wordsworth Pub. Co.
4. Hilgard, E.R., Atkinson, R.L., R.C, (2003) Introduction to Psychology. 14th Edition Wordsworth Pub. Co
5. Feldman, R.S. (2006) Understanding Psychology, 6th Edition, Tata McGraw Hill, New Delhi

Website and e-Learning Source

1. Judgment and Decision making (<http://journal.sjdm.org/>)
2. <https://courses.lumenlearning.com/boundless-psychology/chapter/introduction-to-memory/>
3. <http://ncert.nic.in/ncerts/l/kepy108.pdf>
4. <https://pdfs.semanticscholar.org/3da0/efc3e89115d759d7a2ec2a7e399a07cb17f5.pdf>
5. http://wps.ablongman.com/wps/media/objects/1530/1567154/278-316_CH08_61939.pdf

PSO Relation Matrix

| Course Outcome s | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|---------------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| CO-3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 |
| Average | 3 | 2.4 | 3 | 2.6 | 2.4 | 3 | 2.4 | 3 | 2.6 | 2.4 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------------|----------------|----------------------------|-------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| | | | |
|--------------------------|-------------------|--------------------------------------|------------------|
| SEMESTER II | | | |
| Core Practical II | | Introduction to Psychology II | |
| Code: 24UPSCR2 | Hrs/Week:2 | Hrs/ Sem: 30 | Credit: 2 |

Minimum 5 experiments should be chosen from the given list and professional skills (compulsory) be taken for record writing and practice.

Professional Skills:

1. Quality of psychologist
2. Report Writing

Experiments

1. Tower of Hanoi
2. Big Five Personality Inventory
3. Eysenck's Personality Questionnaire
4. Reasoning Ability Test
5. Immediate Memory Span
6. Level of Aspiration
7. Academic Motivation Inventory
8. Bhatia's Battery of Intelligence
9. Wechsler Adult Intelligence Scale
10. Seguin form board

Book for Reference:

1. Dass, S. N. (2015). *Textbook of Experimental Psychology*. Sublime Publications India.

PSO Relation Matrix

| Course Outcomes | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|-----------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| CO-3 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 |
| Average | 3 | 2.4 | 3 | 2.6 | 2.4 | 3 | 2.4 | 3 | 2.6 | 2.4 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| SEMESTER II | | | |
|---------------------|------------|-------------------------|-----------|
| Generic Elective II | | Psychology of Childhood | |
| Code: 24UPSE21 | Hrs/Week:4 | Hrs/ Sem: 60 | Credit: 4 |

Objectives:

- To provide an overview of the human development stages from conception to babyhood.
- To make the students understand the characteristics of early childhood at physiological domain.
- To make students analyse the emotional development of childhood and socialization process.

Course Outcomes:

| CO No | Upon completion of this course, the person will be able to | CL |
|-------|--|--------|
| CO 1 | explicate the developmental stage of conception through birth. | K1 |
| CO 2 | elucidate the developmental tasks of early childhood. | K2, K3 |
| CO 3 | describe the various emotions and socialization patterns of early childhood. | K2 |
| CO 4 | distinguish the hazards and happiness of late childhood | K3 |
| CO 5 | critically analyze the cognitive and personality development in childhood. | K4 |

Unit I: Human Development

Human development, Period of life span, Conception through Birth, Heredity and environment; Birth – Stages, Methods and settings of Child birth; Characteristics of Infancy and Babyhood.

Unit II: Early Childhood

Characteristics of early childhood, Developmental tasks, Physical development, Physiological habits, Speech during early childhood.

Unit III: Emotions and Socialisation in Early Childhood

Emotions – Common emotions of early childhood, Variations in emotional pattern; Socialization– Patterns of early socialization, Early forms of behaviour in social situations, Companionship in early childhood, Social and Unsocial behaviour patterns.

Unit IV: Late Childhood

Characteristics of late childhood, Developmental tasks, Physical development, Interests in later childhood, Sex-role typing in late childhood, Hazards of late childhood, Happiness in late childhood.

Unit V: Cognition and Personality in Childhood

Cognitive Development – Piaget’s Sensorimotor stage, Piaget’s Pre-operational stage, Piaget’s stage of Concrete operations, Information Processing Approach of memory development, Psychometric and Vygotskian Approaches of Intelligence; Personality – Development of Self- concept, Freud’s Phallic stage and Latency stage, Erikson’s Initiative Vs guilt and Industry Vs inferiority.

Recommended Text

1. Papalia D. E, Olds S. W.& Feldman R.D. (2004) *Human Development* (9thEd.) Chennai: McGraw-Hill Education (India) Private Limited.
2. Santrock J.W. (2011) *Life-Span Development* (13th Ed.) New Delhi: Tata McGraw Education Private Limited.
3. Santrock J.W. (2013) *Child Development* (13th Ed.) New Delhi: Tata McGraw Education Private Limited.
4. Hurlock E.B. (2010) *Developmental Psychology: A Life Span Approach*, Tata McGraw, Hill Education Pvt Ltd

Reference Books

1. Berndt, T.J. (1997). *Child development*, Madison, WI: Brown & Benchmark Publishers.
2. Smith, Barry D. (1998). *Psychology Science and Understanding The McGraw-Hill Company*.
3. Bee H. & Boyd D. *The Developing Child* (10th Ed.) Delhi: Pearson Education.
4. Berk L.E. (2013) *Child Development* (9th Ed.) New Delhi: PHI Learning Pvt Limited.
5. Feldman R.S. & Babu N. (2019) *Child Development* (8th Ed.) Noida: Pearson.

Website and e-Learning Source

1. Genes and Environment (<https://genesenvironment.biomedcentral.com/>)
2. Developmental psychology commons (<http://network.bepress.com/social-and-behavioral-sciences/psychology/developmental-psychology/>)

PSO Relation Matrix

| Course Outcomes | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|-----------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| CO-2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| CO-3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Ave. | 3 | 2.4 | 2.8 | 2.6 | 2.6 | 3 | 2.4 | 2.8 | 2.6 | 2.6 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| SEMESTER II | | | |
|-------------------------------|------------|-------------------------|-----------|
| Generic Elective Practical II | | Psychology of Childhood | |
| Code: 24UPSER2 | Hrs/Week:2 | Hrs/ Sem: 30 | Credit: 1 |

Minimum 5 experiments should be chosen from the given list and professional skills (compulsory) be taken for record writing and practice.

Professional skills

1. Ability to know age related developmental tasks.
2. Report Writing.

Experiments

1. Happiness Scale
2. Children Apperception Test
3. Concept Formation
4. Eye Blink Reflex Reaction
5. Judging emotions
6. Stroop Effect
7. Family Relationship Scale
8. Wiggly Blocks
9. Aggression Scale
10. Self-concept Scale

Reference

- Dass, S. N. (2015). *Textbook of Experimental Psychology*. Sublime Publications India
- Gregory, R.J. (2005). *Psychological testing, history, principles and applications*. 4th Edition, Pearson Education, USA.
- Parameshwaran, E.G., & Ravichandra, R., "*Experimental Psychology*", Neelkamal Publication Pvt.Ltd, Hyderabad, 2001.

PSO Relation Matrix

| Course Outcome s | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|------------------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| CO-2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| CO-3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 |
| CO-4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
| CO-5 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Ave. | 3 | 2.4 | 2.8 | 2.6 | 2.6 | 3 | 2.4 | 2.8 | 2.6 | 2.6 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |

| SEMESTER II | | | |
|------------------------------------|--------------------|--------------------------------|------------------|
| Skill Enhancement Course II | | Psychological First Aid | |
| Code: 24UPSSE2 | Hrs/Week: 2 | Hrs/ Sem: 30 | Credit: 2 |

Objectives:

- To offer the students a comprehensive overview of PFA
- To provide them with a knowledge on trauma
- To make the students efficient in RAPID model

Course Outcomes:

| CO No | Upon completion of this course, the person will be able to | CL |
|--------------|---|-----------|
| CO 1 | analyse the techniques of PFA | K4 |
| CO 2 | understand the impact of trauma | K2 |
| CO 3 | distinguish the various strategies of the RAPID model | K2 |
| CO 4 | distinguish the various ways of prioritization | K2 |
| CO 5 | analyse and apply the ways of self-care | K3, K4 |

Unit I: Psychological First Aid

Definition – Development of the PFA concept – Core Competencies of PFA – Goals.

Unit II: Psychological Consequences of Trauma

Meaning – Post-traumatic stress disorder – Depression – Generalized Anxiety – Panic Disorder – Substance Use – Psycho physiological Stress Syndromes – Types of Disasters – Factors that increase severity.

Unit III: RAPID Model - Rapport and Assessment

Meaning – Demonstration of the R in RAPID Model – Establishing Rapport and Reflective Listening, Empathy and Rapport, Mechanisms of Action – Demonstration of the A in RAPID Model – Assessment – Screening, Appraisal, Cognitive Indicia, Emotional Indicia, Behavioural Indicia, Spiritual Indicia, Physiological Indicia.

Unit IV: Prioritization and Intervention

Demonstration of the P in RAPID Model – Psychological Triage – Psychological or Behavioural Instability – The A-B-C Model – Demonstration of the I in RAPID Model – Intervention Tactics to Stabilize and Mitigate Acute Distress.

Unit V: Self-Care

Demonstration of the D in RAPID Model – Disposition and Facilitating Access to Continued Care – Self-Care – The Need for Self-Care – Terminology – Risk Factors – Developing a Plan.

Recommended Text

1. George S. Everly, JR, & Jeffrey M. Lating. (2017). The Johns Hopkins Guide to Psychological First Aid. Johns Hopkins University Press.

Website and e-Learning Source

1. <https://www.coursera.org/learn/psychological-first-aid>

PSO Relation Matrix

| Course Outcome s | Programme Outcomes (PO) | | | | | Programme Specific Outcomes (PSO) | | | | |
|---------------------|-------------------------|------|------|------|------|-----------------------------------|-------|-------|-------|-------|
| | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PSO-1 | PSO-2 | PSO-3 | PSO-4 | PSO-5 |
| CO-1 | 3 | 2 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 1 |
| CO-2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 |
| CO-3 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 |
| CO-4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO-5 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 3 |
| Average | 3 | 2.4 | 2.8 | 2.6 | 2.4 | 3 | 2.4 | 2.8 | 2.6 | 2.4 |

| Mapping | <40% | ≥ 40%and<70% | ≥70% |
|----------|-----------|-----------------|------------|
| Relation | Low Level | Medium Level | High Level |
| Scale | 1 | 2 | 3 |