

BACHELOR OF SCIENCE
IN
PSYCHOLOGY
Draft Curriculum and Syllabus
(Applicable from the Academic Session 2021-22)



Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
Haringhata – 741249, Nadia, West Bengal, India

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SEMESTER WISE SYLLABUS

Semester I

Sl No.	Course Code	Type	Course Title	Course Type	Hours/Credit			
					L	T	P	C
THEORY								
1	BSCPY-101	Theory	Introduction to Psychology	CC-1	4			4
2	BSCPY-102	Theory	Biological Psychology	CC-2	4			4
PRACTICAL								
3	BSCPY-191	Practical	Practical on Reaction Time, Attention & Emotional Expression	CC-1			4	2
4	BSCPY-192	Practical	Project Based Practical on Memory Functioning Including Bedside Tests	CC-2			4	2
THEORY								
5	BSCPY-103	Theory	Choose from Basket 1 of Humanities and Human Skills	GEC-1	5	1		6
6	BSCPY-104	Theory	Communicative English	AECC-1	2			2
				Total	20			



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COURSE TITLE: INTRODUCTION TO PSYCHOLOGY – CC1-T L-T-P: 4-0-0 (4 CREDITS)

Course Code: BSCPY 101

Course outcomes (CO)

At the end of the course, the students will be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Define Psychology and basic concepts of Emotion, Motivation, and Intelligence	L1	Assessment through MCQ questions
CO-2	Explain the nature of Psychology and its basic principles	L2	Assessment through LAQ
CO-3	Use the principles to explain human behaviour	L3, L2	Assessment through Poster Making
CO-4	Compare and Contrast the different perspectives to make a coherent sense of behavior	L4	Assessment through Poster making

Course Details

- MODULE I:** Meaning, nature, and scope of Psychology; Psychology as a science.
- MODULE II:** Schools of Psychology (Structuralism, Functionalism, Psychoanalytic, Behavioral, Humanistic), Branches (Pure and Applied), and Methods (Experimental and Non-experimental, Observational, Introspection) of Psychology.
- MODULE III:** Meaning, nature, concept, and theories of
 - Emotion (James Lange, Canon Bard, Schachter Singer, Lazarus, Multilevel)
 - Motivation (McClelland, Maslow, Rogers, Murray)
 - Intelligence (Spearman, Guildford, Thurstone, Sternberg, Thorndike, Cattell)
- MODULE IV:** Psychology in relation to other fields (Neuroscience, Sociology, Anthropology, Genetics)

Suggested Reading

- Baron, R. & Misra, G. (2013). Psychology. Pearson.
- Chadha, N.K. & Seth, S. (2014). The Psychological Realm: An Introduction. Pinnacle Learning, New Delhi.
- Ciccarelli, S. K., & Meyer, G. E. (2010). Psychology: South Asian Edition. New Delhi: Pearson Education.
- Passer, M.W. & Smith, R.E. (2010). Psychology: The science of mind and behaviour. New Delhi: Tata McGraw-Hill.



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COURSE TITLE: BIOLOGICAL PSYCHOLOGY – CC2-T L-T-P: 4-0-0 (4 CREDITS)

Course Code: BSCPY 102

Course Outcomes (CO)

At the end of the course, the students would be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Explain the basic structures and functions of the Nervous system	L2	Assessment through Poster Making
CO-2	Interpret the brain functions in light of different human abilities	L3	Assessment through classroom Powerpoint Presentations
CO-3	Identify which area of the nervous system is responsible of major human functions	L2	Assessment through Poster making

Course Details

- **MODULE I:** Basic unit of the nervous system: Neuron (Structure, function, nerve impulse conduction within neuron and between neuron); Neurotransmitters
- **MODULE II:** Structure and function of the Central Nervous System (Brain and Spinal Cord)
- **MODULE III:** Structure and function of the Peripheral Nervous System (Somatic Nervous System, Autonomic Nervous System)
- **MODULE IV:** Biological correlates of Emotion, Learning, and Memory

Suggested Readings

- Breedlove, S. M., Rosenzweig, M. R., & Watson, N. V. (2007) Biological Psychology: An introduction to behavioral, cognitive, and clinical neuroscience, 5th Edition. Sinauer Associates, Inc., Sunderland, Massachusetts.
- Carlson, N. R. (2009) Foundations of Physiological Psychology, 6th Edition. Pearson Education, New Delhi.
- Levinthal, C. F. (1983). Introduction to Physiological Psychology. New Delhi: PHI.
- Pinel, J. P. J. (2011) Biopsychology, 8th Edition. Pearson Education, New Delhi.
- Rozenweig, M. H. (1989). Physiological Psychology. New York: Random



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COURSE TITLE: COMMUNICATIVE ENGLISH – AECC1-T L-T-P: 2-0-0 (2 CREDITS)

Course Code: BSCPY 104

Course outcomes (CO)

At the end of the course, the students will be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Demonstrate the basic concepts of the usage of English grammar & vocabulary in communication.	L2	Assessment through MCQ questions
CO-2	List facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating the main ideas given in written texts.	L1	Assessment through MCQ questions
CO-3	Apply acquired linguistic knowledge in producing various types of written texts.	L3	Assessment through LAQ
CO-4	Develop and demonstrate the speaking skills for group discussions.	L6	Assessment through GD sessions

Course Details:

- **MODULE I: GRAMMAR-** Correction of sentence, Vocabulary/word formation, Single word for a group of words, Fill in the blank, transformation of sentences, Structure of sentences – Active / Passive Voice – Direct / Indirect Narration.
- **MODULE II: ESSAY WRITING-** Essay Writing Descriptive – Comparative – Argumentative – Thesis statement- Structure of opening / concluding paragraphs – Body of the essay.
- **MODULE III: COMPREHENSION-** Reading Comprehension; Global – Contextual – Inferential– Select passages from recommended text.
- **MODULE IV: BUSINESS CORRESPONDENCE-** Letter Writing – Formal, Drafting Biodata- Resume'- Curriculum Vitae, Report Writing.
- **MODULE V: COMMUNICATION SKILLS-** Public Speaking skills, Features of effective speech, Verbal & Non-verbal communication, Group Discussion.



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Suggested Readings

- S R Inthira & V Saraswathi, Enrich your English a) Communication skills b) Academic skills, CIEFL & OUP
- R.C. Sharma and K. Mohan Business Correspondence and Report Writing Tata McGraw Hill , New Delhi , 1994
- Maxwell Nurnberg and Rosenblum Morris, All About Words- A Text Book for English for Engineers &, Technologists General Book Depot, New Delhi, 1995

PRACTICAL 1 – CC1-P L-T-P: 0-0-4 (2 CREDITS)

COURSE TITLE: PRACTICAL ON REACTION TIME, ATTENTION & EMOTIONAL EXPRESSION

Course Code: BSCPY 191

1. Practical on measuring reaction time using Reaction Timer
2. Practical on measuring fluctuation & oscillation of attention through Response Recorder
3. Practical on determination of the effect of different task performing attentive states on emotional expressions through Pneumograph

PRACTICAL 2 – CC2-P L-T-P: 0-0-4 (2 CREDITS)

COURSE TITLE: PROJECT BASED PRACTICAL ON MEMORY FUNCTIONING INCLUDING BEDSIDE TESTS

Course Code: BSCPY 192

1. Practical on memory and forgetting through the use of non-sense syllables
2. Practical on assessing recent, remote, and immediate memory through bedside tests like MoCA, MMSE, PGI-MS



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Semester II

Sl No.	Course Code	Type	Course Title	Course Type	Hours/Credit			
					L	T	P	C
THEORY								
1	BSCPY-201	Theory	Introduction to Statistical Methods for Psychological Research	CC-3	4			4
2	BSCPY-202	Theory	Psychology of Individual Differences	CC-4	4			4
PRACTICAL								
3	BSCPY-291	Practical	Practical on statistical methods including usage of Excel	CC-3			4	2
4	BSCPY-292	Practical	Practical on assessing intelligence and Personality	CC-4			4	2
THEORY								
5	BSCPY-203	Theory	Choose from Basket 2 of Creative and Performing Arts	GEC-2	5	1		6
6	BSCPY-204	Theory	Ecology: Ecosystem Dynamics and Conservation	AECC-2	2			2
7	BSCPY-205	Theory	Basic Computer Programming and Introduction to Python	SEC-1	2			2
Total					22			



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Course Title: INTRODUCTION TO STATISTICAL METHODS FOR PSYCHOLOGICAL RESEARCH – CC3-T L-T-P: 4-0-0 (4 CREDITS)

Course Code: BSCPY 201

Course Outcomes (CO)

By the end of the course, the students would be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Define and Describe the basic concepts of different types of statistical measures	L1, L2	Assessment through MCQ and SAQ questions
CO-2	Implement appropriate statistical measures to assess centrality of variables	L3	Assessment through data analysis
CO-3	Compare and Contrast the effectiveness of parametric and non-parametric statistics	L4	Assessment through Poster Making
CO-4	Report data in a graphical format	L2	Assessment through Presentation in the class

Course Details

- **MODULE I:** Concept of statistics; types of statistics; methods of representation of data (bar graph, pie graph, histogram, scatterplot)
- **MODULE II:** Concept, uses, and measures of Central Tendency (Mean, Median, Mode) and Variability (Range, Average Deviation, Standard Deviation, Quartile Deviation)
- **MODULE III:** Normal Probability Curve: Concept, applications. Concept of tails, skewness and kurtosis
- **MODULE IV:** Concept of parametric and non-parametric statistics; hypotheses testing steps and utility.

Suggested Readings

- Aron, A., Aron, E.N., & Coups, E.J. (2007). Statistics for Psychology. (4thEd.) India: Pearson Education, Prentice Hall.
- Chadha, N.K. (1991) Statistics for Behavioral and Social Sciences. Reliance Pub. House: New Delhi.
- Coolican, H. (2006). Introduction to Research Methodology in Psychology. London: Hodder Arnold.
- Howell, D. (2009) Statistical methods for Psychology. King, B.M. & Minium, E.W, (2007). Statistical Reasoning in the behavioral Sciences USA: John Wiley & Sons.



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- Mangal, S.K. (2012). Statistics in Psychology & Education. 2nd Edition. New Delhi: PHI learning Pvt. Ltd

Course Title: PSYCHOLOGY OF INDIVIDUAL DIFFERENCES – CC4-T L-T-P: 4-0-0 (4 CREDITS)

Course Code: BSCPY 202

Course Outcomes (CO)

At the end of the course, the students would be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Define and Explain Personality and its multifaceted nature	L1, L2	Assessment through MCQ and SAQ questions
CO-2	Interpret human behavior to understand the self in light of eastern and western principles	L3	Assessment through Poster Building
CO-3	Use the principles to explain human behaviors in corporate, clinical, or school sector	L3, L2	Assessment through using scales in the field
CO-4	Compare and Contrast the different perspectives to make a coherent sense of behavior	L4	Assessment through Movie Analysis

Course Details

1. **MODULE I:** Meaning, origin, and nature of personality; historical perspectives (western & eastern), temperament and character; Culture, gender, and personality
2. **MODULE II:** Major determinants of personality; nature versus nurture debate. Self and identity in Indian Thought.
3. **MODULE III:** Major perspectives on Personality: Freud, Eysenck, Bandura
4. **MODULE IV:** Individual differences in personality expression: body language and behavioral styles

Suggested Readings

- Cornelissen, R.M.M., Misra, G. & Varma, S. (2011). Foundations of Indian Psychology, Vol 1. Pearson.
- Chadha, N.K. & Seth, S. (2014). The Psychological Realm: An Introduction. Pinnacle Learning, New Delhi.
- Theories of Personality, 8th edition, by Feist & Feist, *McGraw Hill*
- Morris, Desmond. (2002) *Peoplewatching*, Vintage.



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Course Title: **ECOLOGY: ECOSYSTEM DYNAMICS AND CONSERVATION – AECC2-T L-T-P: 2-0-0 (2 CREDITS)**

Course Code: **BSCPY 204**

Course Outcomes (CO)

At the end of the course, the students would be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Understand and evaluate the global scale of environmental problems.	L1	Assessment through MCQ and SAQ questions
CO-2	Inspect critically on their roles, responsibilities, and identities as citizens, consumers and environmental actors in a complex, interconnected world	L4	Assessment through MCQ and SAQ questions
CO-3	Apply critical thinking, problem-solving, and the methodological approaches of the social sciences, natural sciences, and humanities in environmental problem solving.	L3	Assessment through using scales in the field

Course Details:

- **Module I:** Introduction to environmental studies & ecosystems: Multidisciplinary nature of environmental studies: Scope and importance; what is an ecosystem? The structure and function of ecosystem, Energy flow in an ecosystem, food chains, food webs and ecological succession, forest ecosystem, grassland ecosystem, desert ecosystem, aquatic ecosystems.
- **Module II:** Natural resources & its management and conservation: Land resources and land use change: Land degradation, soil erosion and desertification; Deforestation: Causes and impacts, forests, biodiversity and tribal populations; Water: Use and over-exploitation of surface and ground water. Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources and growing energy needs.
- **Module III:** Environmental pollution & management: Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution, Solid waste management: Control measures of urban and industrial waste. Climate change, global warming, Environment Laws: Environment Protection. Act, Air



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(Prevention & Control of Pollution) Act, Water (Prevention and control of pollution) Act, Wildlife Protection Act, Forest Conservation Act; International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).

- **Module IV:** Environment & social issues: Human population growth: Impacts on environment, human health and welfare; Resettlement and rehabilitation of project affected persons; case studies; Disaster management: floods, earthquake, cyclones and landslides; Environmental ethics: environmental conservation; environmental communication and public awareness.

Suggested Readings:

- Carson, R. Silent Spring. Houghton Mifflin Harcourt, 2002.
- Gadgil, M., & Guha, R. This Fissured Land: An Ecological History of India. Univ. of California Press, 1993.
- Gleeson, B. and Low, N. (eds.). Global Ethics and Environment, London, Routledge, 1999.
- Gleick, P. H. Water in Crisis. Pacific Institute for Studies in Dev., Environment Security. Stockholm Env. Institute, Oxford Univ. Press, 1993.
- Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.

Course Title: BASIC COMPUTER PROGRAMMING AND INTRODUCTION TO PYTHON – SEC1-T L-T-P: 2-0-0 (2 CREDITS)

Course Code: BSCPY 205

Course Outcomes (CO)

At the end of the course, the students would be able to:

CO No.	Course Outcomes	Bloom's Level	Assessment technique
CO-1	Understand the principles of Python and acquire skills in programming in python.	L1	Assessment through MCQ and SAQ questions
CO-2	Interpret the fundamental Python syntax and semantics and be fluent in the use of control flow statements.	L2	Assessment through MCQ and SAQ questions
CO-3	Implement Python programs with	L3	Mcq test



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	conditionals and loops.		
CO-4	Represent compound data using Python lists, tuples, dictionaries, Files and modules	L4	Mcq test

Course Details:

- **Module I: Basic concepts:** Fundamentals of Python **Getting Started:** Running Code in the Interactive Shell, Input, Processing and Output, Editing, Saving and Running a Script, Working of Python.
- **Module II: Variables, Expressions and Statements:** Values and Data Types, Variables, Keywords, String Literals, Escape Sequences, Operators and Operands, Expressions and Statements, Interactive mode and Script mode, Order of Operations, Comments.
- **Module III: Python Operators and Operands:** Arithmetic, Relational Operators and Comparison Operators -- Python Assignment Operators Short hand Assignment Operators -- Logical Operators or Bitwise Operators Membership Operators -- Identity Operators Operator precedence -- Evaluating Expressions
- **Module IV: String Handling:** String operations and indices Basic String Operations -- String Functions, Methods -- Delete a string -- String Multiplication and concatenation -- Python Keywords, Identifiers and Literals -- String Formatting Operator -- Structuring with indentation in Python -- Built-in String Methods-- Accessing Values in Strings -- Various String Operators -- Python String replace() Method -- Changing upper and lower case strings -- Using "join" function for the string -- Reversing String -- Split Strings
- **Module V: Control Structures:** Boolean Expressions - Selection Control - If Statement- Indentation in Python- Multi-Way Selection – If-Elif statements-- Iterative Control- For loop- While Statement- Infinite loops— Break and Continue Statements--Definite vs Indefinite Loops- Boolean Flags and Indefinite Loops.

Suggested Readings:

- Mark Lutz, "*Learning Python Powerful Object-Oriented Programming*", O'reilly Media 2018, 5th Edition.
- Timothy A. Budd, "*Exploring Python*", Tata MCGraw Hill Education Private Limited, 1st Edition, 2011.
- Kenneth A. Lambert, *The Fundamentals of Python: First Programs*, Cengage Learning, 2011.



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PRACTICAL 3 – CC3-P L-T-P: 0-0-4 (2 CREDITS)

Course Title: PRACTICAL ON STATISTICAL METHODS INCLUDING USAGE OF EXCEL

Course Code: BSCPY 291

1. Practical on using MS Excel to carry out statistical analysis of data
2. Practical on Normal Probability Curve

PRACTICAL 4 – CC4-P L-T-P: 0-0-4 (2 CREDITS)

Course Title: PRACTICAL ON ASSESSING INTELLIGENCE AND PERSONALITY

Course Code: BSCPY 292

1. Practical on assessing intelligence using Raven's Progressive Matrices
2. Practical on assessing emotional intelligence
3. Practical on assessing personality using Cattell's 16PF and Eysenck's Personality Questionnaire, Junior Eysenck's Personality Questionnaire