MANIPUR UNIVERSITY
CANCHIPUR: IMPHAL

OFFICE ORDER NO./906
Dated, the 28th November, 2025

No. MU/MDS/VAC/FYUP/MU/: In anticipation of the approval of the next Academic Council, the Vice-Chancellor, on the recommendation of the UG Syllabus Drafting Committee meeting held on 12th September, 2025, is pleased to approve the following courses as the pool of Multidisciplinary Courses (MDCs) for 1st semester under FYUP. Every student has to select one course from the pool of MDCs. Courses already studied at the 12th grade (higher secondary school) level, as well as those offered within the chosen major or minor, cannot be selected. Students may also opt for equivalent/similar courses offered through SWAYAM or other UGC-approved MOOCs, subject to the approval by the University and the affiliated colleges concerned, and such credits shall be duly recognized under the Academic Bank of Credits (ABC). The detailed syllabi and course structures are given in ANNEXURE.

Multidisciplinary Course (MDC) (3 credits)

Category(s)	Name of the Course (s)	Course Code (s)	To be offered/proposed by (Department(s))
Natural and Physical Science	1. Health and Environment	MDC45ANT101(T)25	Anthropology
	2. Biotechnology: An Overview	MDC45BTT101(T)25	Biotechnology
	3. Introductory Chemistry	MDC45CHM101(T)25	Chemistry
	4. Environmental Awareness	MDC45ENV101(T)25	Environmental Science
	5. Understanding Planet Earth	MDC45GEL101(T)25	Geology
	6. Introduction to Physics	MDC45PHY101(T)25	Physics
	7. Introduction to Animal Diversity -1: Non-Chordates	MDC45ZOO101(T)25	Zoology
	8. Introductory Botany	MDC45BOT101(T)25	Botany
Mathematics, Statistics and Computer Applications	1. Computer Fundamentals	MDC45CSC101(T)25	Computer Science
	2. Quantitative Aptitude	MDC45MSC101(T)25	Mathematics
	3. Introduction to Statistics I	MDC45STA101(T)25	Statistics
Library, Information and Media Sciences	1. Media Literacy	MDC45MCC101(T)25	Mass Communication
	2. ICT Fundamentals	MDC45LIS101(T)25	Library & Information Science
Commerce and Management	1. E-Commerce	MDC45COM101(T)25	Commerce
Humanities and Social Sciences	1. Fitness and Conditioning	MDC45PES101(T)25	PESS
	2. Indian Armed Forces: Recruitment and Counseling	MDC45DSS101(T)25	Defence Studies
	3. Introductory Microeconomics	MDC45ECO101(T)25	Economics
	4. Literature and Popular Culture	MDC45ENG101(T)25	English

	5. Understanding of Painting, Sculpture, Applied Art, Print Making	MDC45BFA101(T)25 MDC45BFA101(P)25	Fine Arts
	6. Geography of Manipur	MDC45GEG101(T)25	Geography
	7. Comparative Study: In the special context of Hindi and Manipuri	MDC45HIN101(T)25	Hindi
	8. Introducing North East India	MDC45HIS101(T)25	History
	9. Introduction to Dietetics	MDC45HSC101(T)25	Home Science
	10. Linguistics and Language Ecology of Manipur	MDC45LIN101(T)25	Linguistics
	11. Manipuri Language and Literature – Basic	MDC45MAN101(T)25	Manipuri
	12. Dance and Music in Manipuri Culture	MDC45PHI101(T)25	Philosophy
	13. Nationalism in India	MDC45PSC101(T)25	Political Science
	14. General Psychology	MDC45PSY101(T)25	Psychology
	15. Introduction to Economics	MDC45SEA101(T)25	SEAS
	16. Fundamental of Social Psychology	MDC45SOC101(T)25	Sociology
	17. Guidance and Counseling	MDC45EDN101(T)25 MDC45EDN101(P)25	Education

This is issued in partial modification of the earlier office order No. 855 dated, the 28th October, 2025.

(T. Shantikumar Singh)
Registrar i/c

Copy to:-

1. A.R. to the Vice-Chancellor, MU
2. Deans, School of Studies, MU
3. Controller of Examinations, MU
4. Heads of Departments, MU
5. Principals of affiliated colleges, Manipur
6. Office Order Book
7. Relevant File

MDC45ANT 101(T)25: Health and Environment
(Multidisciplinary)

Nature of Course	Multidisciplinary				
Course Code	MDC45ANT101(T)25				
Course Title	Health and environment				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	2	1		3
Course Audience	Semester I students from other departments				
Proposed by (for Non Core courses)	Board of Studies of UG, Department of Anthropology, Manipur University				
Pre Requisites (if any)	Students should have completed at least intermediate school of 10+2 of any stream.				
Skill Training Required (if any)	Not Applicable				
Pre-Requisite Course Required (if any)	Not Applicable				
Faculty Eligibility and Specialization (if any)	M.A./M.Sc. in Anthropology, preferably with NET / SLET / Ph.D.				

Course Objective (Summary): The course introduces students to the concepts and dimensions of health, the impact of environment on health, and the principles of epidemiology. It aims to build understanding of health from multiple perspectives, analyze environmental determinants of diseases, and provide knowledge of the causes, patterns, and preventive measures of major communicable and non-communicable diseases.

Course Learning Outcomes: Upon completion of the course the learners will be able to

1.	Understand the concept of health, well-being, diseases and illness, health in the community.
2.	Understand the concept of preventive and curative medicine.
3.	Describe the effects of the environment on health.
4.	Describe the epidemiology of some Communicable and Non-communicable diseases

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Health	Concept of Health: Traditional, modern, Biomedical, Ecological, Psychological and Holistic perspectives. Definition (WHO) and Dimensions: Physical, Mental, Social, Spiritual and Emotional Health. Health and illness, Health and Medicine, Sick role.	1
II	Health and Environment	Concept of Health and Environment; Global warming, Air Pollution, Radiation: causes, types, preventive measures, and effects on health.	1
III	Epidemiology	Epidemiology: definition, aims and scope; Causes and preventive measures of Communicable diseases (Covid 19, Tuberculosis, Hepatitis A & B, Dengue) and Non-communicable diseases (Hypertension, Oral Cancer, Diabetes Mellitus & Insipidus).	1

Suggested Readings

1. Aschengrau, A. and Seage, G.R. 2008. Essentials of Epidemiology in Public Health. Boston, Massachusetts.
2. Edberg, M. 2013. Essentials of Health Behavior: Social and Behavioral Theory in Public Health. Second Edition. Jones and Bartlett Publishers.
3. Gordis, L. 2004. Epidemiology. Third Edition. Philadelphia: Elsevier Saunders.
4. Griffith, J.R and White, K.R. 2010. The Well-Managed Healthcare Organization. Chicago, IL: Health Administration Press.
5. Kovner, A.R, McAlearney, A.S., Neuhauser, D. 2013. Health Services Management: Cases, Readings, and Commentary. 10th Ed. Chicago, IL: Health Administration Press.
6. Lee, L.M. 2010. Principles and Practice of Public Health Surveillance. Oxford University Press.
7. Merson, M, Black, R, Mills, A. 2006. International Public Health: Diseases, Programs, Systems and Policies. Jones & Bartlett Learning.
8. Remington, P.L, Brownson, R.C., and Wegner, M.V. 2010. Chronic Disease Epidemiology and Control. American Public Health Association.
9. Turnock, B. 2011. Essentials of Public Health. Jones & Bartlett Publishers.

Course Teaching-Learning Process

The important relevant teaching and learning processes involved in this course are;

- Class lectures
- Seminars
- Tutorials
- Group discussions and Workshops
- Question framing
- Short answer type questions
- Long answer type questions
- Objective type questions

Linkage between Programme Learning Outcomes (POs) and Course Learning Outcomes (COs)

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2	2	1	3	2	2
CO2	3	3	2	2	1	3	2	2
CO3	3	3	2	2	1	3	2	2
CO4	3	3	3	2	1	3	2	2

0 - No linkage, 1 – low linkage, 2 – medium linkage, 3 – strong linkage

Manipur University
Academic Level 100 and Semester I
Syllabus for Biotechnology: An Overview (Theory)

Nature of Course	MDC-1				
Course Code	**MDC45BTT101(T)25**				
Course Title	**Biotechnology: An Overview**				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week (1hr of lecture)	Tutorial/ Week (1hr of tutorial)	Practical/Week	Total Hours/ Week
	3	2 (30hrs/semester)	1 (15hrs per semester)		3 (30hrs lectures+15hrs tutorial per semester)
Course Audience	Semester I				
Proposed by (for Non Core courses)	Department of Biotechnology, Manipur University				
Pre Requisites (if any)	1. 2.				
Skill Training Required (if any)	1. 2.				
Pre-Requisite Course Required (if any)	1. 2.				
Faculty Eligibility and Specialization (if any)					

Course Objective (Summary):

The aim of the course is to:

- Introduce students to the basic ideas of biotechnology using real-life examples
- Explain how biotechnology has grown through major discoveries and inventions
- Explore different branches of biotechnology using the colour code system
- Show how biotechnology helps in medicine, farming, food, industry, and the environment
- Raise awareness about ethical and social issues in modern biotechnology

Course Learning Outcomes: Upon completion of the course the learners will be able to:

CO1	**Understand** what biotechnology is and why it matters in daily life
CO2	**Recall** key moments in biotechnology history (e.g., DNA discovery, GMOs, cloning)
CO3	**Identify** the colour-coded branches and how each is used

CO4	**Explain** popular uses of biotech like insulin production, Golden Rice, or bio-cleanups
CO5	**Think critically** about how biotechnology affects people, food, health, and the planet

Detailed Syllabus Content:

Unit	Unit Name	Detailed Syllabus	Credit
I	**Introduction to Biotechnology**	What Is Biotechnology? Making useful products using living things: Ancient Biotechnology (Using yeast to make bread, cheese, and wine for thousands of years); DNA: Life's Code; First Genetically modified organism (GMO) (bacteria with new genes made in 1973); Biotech in Health (Insulin made from bacteria helps people with diabetes); Biotech in Farming (Bt cotton protects crops from pests and increases yield); Biotech in Food (Golden Rice gives Vitamin A); Biotech in Industry (Yeast used to make biofuels); Biotech for Environment (Bacteria clean up oil spills in oceans and soil); Big Breakthroughs (Dolly the sheep - first cloned animal; CRISPR to fix faulty genes)	1
II	**Branches of Biotechnology (The Colour Code)**	Biotechnology Colours; Red Biotechnology - Health and Medicine (mRNA COVID-19 vaccines by Moderna and Pfizer); Green Biotechnology - Farming and Crops (Bt brinjal, drought-resistant GM maize); White Biotechnology - Industry and Manufacturing (Enzymes in biodegradable detergents); Blue Biotechnology - Marine Life Applications (Glow gene from jellyfish used in labs); Yellow Biotechnology - Food and Nutrition (Probiotics in yogurt and fermented products); Grey Biotechnology - Environment and Waste (Plastic-degrading bacteria); Gold Biotechnology - Bioinformatics and Genomics (Human Genome Project mapping human DNA); Black Biotechnology - Ethics and Biosecurity (Controversies over cloning, gene privacy); Colour Chart Recap (Summary of all biotech branches with famous examples)	1
III	**Applications of Biotechnology**	Biotechnology in Modern Medicine (Monoclonal antibodies for cancer treatment); Personalized Medicine and Genetic Testing (BRCA gene test for breast cancer risk); Gene Editing and Genome Engineering (CRISPR curing sickle cell disease); Agricultural Biotechnology and GM Crops (GM cotton, Golden Rice, virus-resistant papaya); Innovations in Food Production (Lab-grown meat from animal cells); Industrial Biotech and Green Manufacturing (Bioplastics made from corn starch or bacteria); Environmental Biotechnology (Bacteria used to degrade oil, pesticides, and waste); Biosensors and Diagnostic Tools (Glucose meters for diabetics, paper-based COVID tests); Global Case Studies in Biotechnology (Bt Cotton in India, Golden Rice in Asia, COVID vaccine rollout); Future Trends in Biotechnology (3D-printed organs, climate-proof crops, synthetic biology)	1

Suggested Readings*(All the books should be of the latest edition/version)* **:**

1. Dubey, R. C. (2022). A textbook of biotechnology (5th ed.). S. Chand & Co. Ltd.
2. Khan, F. A. (2020). Biotechnology Fundamentals (3rd ed.). CRC Press. https://doi.org/10.1201/9781003024750
3. Thieman, W. J., & Palladino, M. A. (2019). Introduction to Biotechnology (4th Global ed.). Pearson Education
4. Balasubramanian, D., Bryce, C. F. A., Green, J., Jayaraman, K., Dharmalingham, K., & others (Eds.). (1996). Concepts in Biotechnology. Hyderabad: Universities Press (India) Limited
5. Bentahar, S., Abada, R., & Ykhlef, N. (2023). Biotechnology: Definitions, Types and Main Applications. YMER Digital, 22(4), 563–575. https://doi.org/10.37896/YMER22.04/49
6. Gupta, V., Sengupta, M., Prakash, J., Tripathy, B.C. (2017). An Introduction to Biotechnology. In: Basic and Applied Aspects of Biotechnology. Springer, Singapore. https://doi.org/10.1007/978-981-10-0875-7_1

Course Teaching-Learning Process

The important relevant teaching and learning processes involved in this course are;

- Class lectures
- Seminars
- Tutorials
- Group discussions and Workshops
- Short answer type questions
- Long answer type questions
- Objective type questions
- Multiple choice questions
- Statement, reasoning and explanation
- Quizzes
- Presentations through Posters and power point

Linkage between Programme Learning Outcomes (POs) and Course Learning Outcomes (COs)

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1	√	√		√								
CO2	√	√	√	√	√							
CO3	√	√	√	√	√		√			√		√
CO4			√							√		√
CO5			√									√

Assessment Methods

- Oral and written examinations
- Seminar and presentations,

- Interactive sessions.

Multidisciplinary Course: Introductory Botany

	L	T	P	Total
Credit Point	3	0	0	3
Paper Code: MDC45BOT101(T)25				

Course objectives: To provide foundational knowledge of plant diversity, life forms along with sustainable utilization of plant resources and to develop awareness of conservation strategies.

Learning outcomes:

On completion of this course, the students will gain knowledge and will be able to:
1. General characteristics and importance of viruses, bacteria, fungi and lichens.
2. Understand the characteristic features and economic importance of algae, Bryophytes, Pteridophytes and Gymnosperms
3. General characteristics of angiosperms.
4. Understand the core concept of plant resources, distribution, classification based on utility
5. Understand the complex interrelationship between organisms and environment
6. Understand evolving strategies for sustainable natural resource management and biodiversity conservation.

Paper Code: BOTMDC-1

Paper title: Introductory Botany

Credit : 3 (45 Hours)

Unit 1: Life Forms: 15 Hours

Basic principles of life, systematic of living organisms, general features and economic importance of Bacteria, Viruses, Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and general characters of Angiosperms.

Unit 2: Plant Resources and Utilization: 15 Hours

Definition, scope and importance of plant resources. Classification of plant resources based on their utility. Distribution and specific parts used of the following: Major food crops: Cereals (Rice, maize) and pulses (green gram, broad bean, black gram); Fibre yielding plants: cotton, banana, lotus, water rush (Kouna) and pineapple fibres; Timber yielding plants: *Phoebe*, pine, bamboo; Ethnobotanical and Medicinally important plants: *Eupatorium cannabinum* (Langthrei) and *Ocimum tenuiflorum* (tulsi); Ornamental plants: Orchids; Oil yielding plants: Mustard and sunflower

Unit 3: Plants and Environment: **15 Hours**

Habitat types; Plants as source of oxygen and sink of carbon dioxide; Regulation of temperature and purifying water; Effect of environment factors and climate change on plants,

Pollution types and remedial measures; Prevention of flood and soil erosion. Global warming: definition, factors and effects of global warming, Green House effect, Deforestation and afforestation and its impact with reference to Manipur. Concepts of environmental and biodiversity conservation.

Suggested Readings

1. Ambasht, R.S. & N.K. Ambasht (2008). A Text Book of Plant Ecology. CBS Publishers & Distributers, New Delhi
2. Bhatnagar S.P., Moitra, A. 1996. Gymnosperms. New Age International Publishers, New Delhi, India
3. Kumar, H.D. 1999. Introductory Phycology, 2nd edition. New Delhi: Affiliated East-West Press.
4. Kormondy, E.J. 2017.Concepts of Ecology, 4th edn. Pearson India Education Services Pvt. Ltd.
5. NCERT, Class 11, BIOLOGY
6. NCERT, Class 12, BIOLOGY
7. Pandey S.N., Misra, S.P., Trivedi, P.S. 1983. A Textbook of Botany Vol. 2. Bryophyta,Pteridophyta, Gymnosperms and Palaeobotany. Vikas Publishing House Pvt. Ltd., New Delhi.
8. Plant of the World Online (POWO) (https://powo.science.kew.org)
9. Sharma, P.D. 2015. Ecology and Environment, 12th edition. Rastogi Publications, Meerut.
10. Sinha S.C. 1996, Medicinal Plants of Manipur. Manipur Association for science and society, Imphal.
11. Singh H.B., Singh R.S., Sandhu J.S. 2003 Herbal Medicine of Manipur Daya Publishing House, Delhi.
12. Singh, J.S., Singh, S.P. and Gupta, S.R. (2006). Ecology, Environment and Resource Conservation, Anamaya Publishers, New Delhi.
13. State of Environment Report Manipur, 2006. manenvis.nic.in
14. Vashistha P.C., Sinha A.K., Kumar A. 2010. Pteridophyta. S. Chand. Delhi, India.

Multi-Disciplinary Course (MDC-1)

MDC45PES101(T)25: Fitness and Conditioning **3 Credits**

Course Objective:
Learning Outcomes:

1. Students will understand the basic concepts of fitness, conditioning and warming-up.
2. Students will enhance knowledge of fitness and conditioning training programs.
3. Students will gain more basic knowledge of warming-up exercises.
4. Students will understand and prepare weight management plans with proper diet.

Course Contents

Unit-I: Introduction to Fitness

1.1 Meaning and definition of fitness
1.2 Basic components of fitness
1.3 Types of Fitness, maintenance of fitness
1.4 Importance of fitness and well being

Unit-II: Introduction to Conditioning

2.1 Meaning and Definition of Conditioning
2.2 Types of Conditioning
2.3 Importance of Conditioning in fitness development
2.4 Planning for Conditioning.

Unit-III: Warming-up Exercises

3.1 Meaning and concept of warming-up
3.2 Types of warming-up
3.3 Importance of warming-up in sports conditioning training
3.4 General principles of warming-up exercise
3.5 Factors affecting warming-up exercise.

Unit-IV: Physical Fitness Components

4.1 Types of physical fitness
4.2 Strength and types
4.3 Speed and types
4.4 Endurance and types
4.5 Flexibility, Coordination and Agility

Unit-V: Weight Management and Balance Diet

5.1 Concept of weight management and its importance
5.2 Factor affecting weight management
5.3 Determination of desirable body height and weight
5.4 Balance diet and its components
4.5 Role of diet in weight management

References:

1. Bessesen, D. H. (2008). Update on Obesity. J Clin Endocrinol Metab.*93*(6), 2027-2034.

2. Butryn, M.L., Phelan, S., &Hill, J. O.(2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity(Silver Spring)*. *15*(12), 3091-3096.
3. Bates M. (2008). Health Fitness Management (2nd Ed.) USA: Human Kinetics.
4. Fink, H.H., Burgoon,L.A., &Mikesky, A.E. (2006). Practical Applications in Sports Nutrition. Canada : Jones and Bartlett Publishers.
5. Lancaster S. &Teodoressu, R. (2008). Athletic Fitness for Kids. USA: Human Kinetics.
6. Michael J. Gibney (2002) – Human Nutrition, Atlantic publication, New Delhi.
7. Martin Estwood (2005) – Principle of human nutrition, Atlantic publication, New Delhi.
8. Sharma, P.D. (1998). Officiating and Coaching. AP Publishers, Jalandhar.
9. Rules of Games and Sports. YMCA Publishing House, Jai Singh Rad (1986), New Delhi.

MDC-I: Introductory Chemistry

Semester: I

Paper: Introductory Chemistry Course Code: MDC45CHM101(T)25

L	T	P	Credit
3	0	0	3

Course Objectives:

By studying this course, the students will be able to understand

- Atomic theory and its evolution.
- Learning the scientific theory of atoms.
- Elements in the periodic table, physical and chemical characteristics, and periodicity.
- To predict the atomic structure, chemical bonding, and molecular geometry based on accepted models.
- To understand the atomic theory of matter, consider the composition of an atom.
- Identity of given element, relative size, charges of proton, neutron, and electrons, and their assembly to form different atoms.
- Defining isotopes, isobars, and isotones.
- Physical and chemical characteristics of elements in various groups and periods.
- Nature of bonding various molecules/ions.
- Behaviour of gases.
- Solutions, their strength, and colligative properties.
- Fundamentals of organic chemistry.

1. **Atomic structure:** **(8 Hrs)**

Bohr's atomic theory, Calculation of radius of atom and calculation of energy of electron in hydrogen-like atoms, Electromagnetic radiation and electromagnetic spectrum, hydrogen spectrum and its origin, Limitations of Bohr's atomic theory, de-Broglie theory, Heisenberg's uncertainty principle, quantum numbers, Aufbau principle, Hund's rule, Pauli's exclusion principle, electronic configuration of atoms and ions.

2. **Periodicity:** **(6 Hrs)**

Modern periodic law and modern periodic table, Classification of elements into blocks, atomic radius, Ionisation energy, Electron affinity, Electronegativity and their variation in the periodic table, Diagonal relationship, Inert pair effect.

3. Chemical bonding: **(6 Hrs)**

General idea about chemical bonds and their types- ionic bond, covalent bond and coordinate bond, Valence bond theory of covalent bond, Explanation of shapes of molecules/ions VSPER theory and hybridisation, Covalent character in ionic bond, Ionic character in covalent bond, Intermolecular forces.

4. Gaseous state: (6 Hrs)

Ideal gas and ideal gas equation, Kinetic theory of gases, Real gases and their deviation from ideal gas behaviour, van der Waals equation and its derivation, Significance and units of terms involved in van der Waals equation.

5. Solutions: (6 Hrs)

Solutions and their classifications, Concentration of solution and various terms used to express the strength of solution, Calculations related to strength of solution, Colligative properties of solution and related numerical problems.

6. Introduction to organic chemistry: (8 Hrs)

Organic compounds and their classification, Functional group, Homologous series, Types of carbon chains, carbon atoms & hydrogen atoms, IUPAC nomenclature of organic compounds, Hybridisation and shapes of organic molecules, General idea about structural isomerism and stereoisomerism in organic compounds, Aromaticity and its implications.

7. Organic reaction mechanism: (5 Hrs)

Fission of covalent bonds, Electrophiles and nucleophiles, Electronic displacements in organic molecules, Resonance, Organic reaction intermediates- carbocation, carbanion & free radicals, Types of organic reactions.

On completion of this course, the students will be able to understand

- Atomic theory and its evolution.
- Learning the scientific theory of atoms.
- Elements in the periodic table: physical and chemical characteristics, periodicity.
- To predict the atomic structure, chemical bonding, and molecular geometry based on accepted models.
- To understand the atomic theory of matter, consider the composition of an atom.
- Identity of given element, relative size, charges of proton, neutron, and electrons, and their assembly to form different atoms.
- Defining isotopes, isobars, and isotones.
- Physical and chemical characteristics of elements in various groups and periods.
- Nature of bonding various molecules/ions.
- Behaviour of gases.
- Solutions, their strength, and colligative properties.
- Fundamentals of organic chemistry

Suggested Readings:

1. Kumar Indrajit, Undergraduate Introductory Chemistry, Pragati Prakashan Meerut, 2023.
2. Lee, J. D. *Concise Inorganic Chemistry,* Wiley, 5th Edn.

3. Atkins, P. W. and De Paula, J. *Physical Chemistry*, Tenth Edition, Oxford University Press, 2014.
4. R. N. Morrison & R. N. Boyd, Organic Chemistry, 6th Edn., Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
5. S. H. Pine, Organic Chemistry, Fifth Edition, McGraw Hill, (2007)
6. F. A. Carey, Organic Chemistry, Seventh Edition, Tata McGraw Hill (2008).
7. J. Clayden, N. Greeves, S. Warren, Organic Chemistry, 2nd Ed., (2012), Oxford University Press.

Manipur University
Academic Level 4.5 and Semester I
Syllabus for MDC – 1: E-Commerce (Theory)

Nature of Course	MDC - 1				
Course Code	MDC45COM101(T)25				
Course Tittle	E - COMMERCE				
Course Level	-				
Credit Details	Total Credit	Lecture/Week	Tutorial/Week	Practical/Week	Total Hours/Week
	3	2	1		3
Course Audience	Students of other Departments				
Faculty Eligibility and Specialization (if any)	Commerce Faculty				

Course Objective:

To provide students with a comprehensive understanding of the foundations, models, technologies, marketing tools, and regulatory frameworks of modern e-commerce, while also exploring future trends like AI, mobile commerce, and social media integration.

Course Learning Outcomes: Upon completion of the course, the learners will be able to

1	Define and differentiate between various e-commerce models and digital business formats.
2	Apply digital marketing and social commerce strategies for business growth.
3	Evaluate electronic payment systems and their security aspects.
4	Apply social media and influencer marketing strategies.
5	Evaluate the security, ethical, and legal aspects of e-commerce transactions.

Course Content:

Unit 1: Introduction to E-Commerce 20 Marks

Introduction to E-Commerce, Traditional vs. Electronic Commerce, Types of E-Commerce (B2B, B2C, C2C, C2B, G2C), Key Drivers and Challenges, Emerging trends in E-commerce

Unit 2: Digital Marketing and Social Commerce 20 Marks

Digital Marketing Concepts: SEO, SEM, Email Marketing, Content Marketing, Social Media Commerce: Facebook Shops, Instagram Shopping, YouTube Integration, Influencer and Affiliate Marketing, Analytics Tools: Google Analytics, Meta Ads Manager, Customer Acquisition and Engagement Strategies

Unit 3: Emerging Trends and Innovation in E-Commerce

2

0 Marks

Social commerce evolution (Instagram, Facebook, WhatsApp, YouTube); influencer-driven commerce and live-stream selling; direct-to-consumer (D2C) models; subscription and membership-based models (Amazon Prime, OTT platforms); sustainable and ethical e-commerce practices (eco-friendly packaging, ethical sourcing)

Unit 4: Electronic Payment System

2

0 Mar**ks**

Introduction to E-Payments: Meaning, Benefits, and Evolution, Types of Digital Payment Methods: Credit/Debit Cards, Internet Banking, UPI, Mobile Wallets, Advantages of E-Payments: Convenience, Transparency, Speed, Reduced Cash Dependency, Disadvantages of E-Payments: Cyber Threats, Connectivity Issues, Fraud, Emerging Trends: Contactless Payments, QR Codes

Unit 5: Cyber Laws and IT Act 2000

2

0 Marks

Introduction to Cybersecurity in E-Commerce, Major Cyber Threats: Phishing, Identity Theft, Hacking, Data Breaches, Legal Framework: Overview of IT Act 2000, Provisions Related to E- Commerce, Digital Signatures, Cybercrimes, Ethical Issues, and Best Practices in Online Transactions

Suggested Readings:

Kenneth C. Laudon & Carol Guercio Traver (2023-24) E-Commerce - Business, Technology & Society

P.T. Joseph S.J.(2023) E-Commerce: An Indian Perspective -PHI Learning.

Pralok Gupta (2020) E-Commerce in India: Economic & Legal Perspectives -SAGE Publications Dr. Shivani Arora (2024) e- Commerce- Taxmann's Publications.

Dr. Kavitha Kamath (2024) Social Media Marketing Essentials - Vibrant Publishers

MANIPUR UNIVERSITY
ACADEMIC LEVEL - 100 AND SEMESTER I
SYLLABUS FOR FYUP COMPUTER FUNDAMENTALS (MDC1 – Theory)

Nature of Course	MDC1				
Course Code	MDC45CSC101(T)25				
Course Title	Computer Fundamentals				
Course Level	100 Level				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3	0	0	3
Course Audience	UG Semester I students who have opted Computer Science as MDC				
Pre Requisites (if any)	None				
Skill Training Required (if any)	None				
Pre-Requisite Course Required (if any)	None				
Faculty Eligibility and Specialization (if any)	PhD/M.Sc./M.Tech./MCA in Computer Science/IT with specialization in Programming Languages / Software Development				

Course Objectives:

The main objective of this course "Computer Fundamentals" is to provide a foundational understanding of computer systems and their basic operations, encompassing both hardware

and software. This includes learning about the components of a computer, how they work together, and the role of different types of software. Students also gain skills in using common computer applications and understanding basic concepts like data representation, internet usage.

Course Learning Outcomes:

On successful completion of this course, students will be able to

CO1	Describe the basic structure, components, types, and generations of computers, along with their input, output, and storage devices.
CO2	Perform number system conversions, binary arithmetic operations, and apply error detection codes.
CO3	Analyze the architecture and operation of basic digital logic circuits.
CO4	Demonstrate the use of system software, application software, and productivity tools such as MS Word, Excel, and PowerPoint.
CO5	Describe the basic concepts of computer networks, including OSI model, protocols, and topologies.

Detailed Syllabus content:

Unit	Unit Name	Detailed Syllabus	Credit
I	**Introduction to computer**	Computer definition fundamental block diagram of a Computer, Physical components of computer, CPU, input unit &, output unit. Computer memory organization, RAM, ROM, magnetic hard disk, Output devices, Input devices. peripheral devices, computer generations, classification of computers,	0.6
II	**Number systems and Data representation**	Number Systems: conversion between number systems, BCD Bnary Arithmetic- addition, subtraction using 1's and 2's complement method. Fixed- and floating-point representation Representations of Characters in computer. ASCII Code, error detection code.	0.6
III	**Computer System Architecture and Digital logic Circuits**	Interconnection of units, processor to memory communication, I/O to processor communication, interrupt structure, processor features. Logic circuits: switching circuits, Logic gates, operations of logic circuits Boolean functions, truth table duality principle, half adders, full adders, decoders, encoders.	0.6
IV	**Computer**	Software definition, programs, algorithms, flowcharts.	0.6

	Software	Software classification - System software, Application software, Utility software. Operating system definition, features, functions. Types of operating system. Programming languages, Language processors- compiler, interpreter, assembler. source code, object code, Ms-Word, Ms-excel, Ms-PowerPoint, their features and functions	
V	**Basics of computer networking**	Computer network definition, Network classifications OSI reference model, Network Protocols: TCP/IP, HTTP, SMTP, FTP, WWW (World Wide Web),, Network topologies-bus, ring, star, mesh, tree, hybrid. Routings.	0.6

Note:

Since ***1 credit ≈ 15 hours*** *of teaching time in a semester:*

3 credits → 45 total teaching hours

5 units → 45 ÷ 5 = 9 hours per unit

In credit terms, that's:

3 credits ÷ 5 units = 0.6 credit per unit

So,

Each unit = ~0.6 credit (9 hours

COURSE TEACHING-LEARNING PROCESS

The important relevant teaching and learning processes involved in this course are: *Class lectures, Seminars, Group discussions, Question framing – MCQ (Simple, Complex, Column, Assertion and reasoning), SAQ, LAQ etc. Quizzes and Presentations*

Suggested reading:

1. V. Rajaraman, " Fundamentals of Computers ", Prentice –Hall of India.
2. Albert Paul Malvino, Digital Computer Electronics, TMH Edition
3. Tanenbum, A. S. &Wethral , D.J.(2012), Computer Networks, Pearson Edition.
4. Gini Courter, Annette Marquis, Mastering Microsoft Office 2000, BPB publications.
5. James L. Paterson Abraham Silberschatz, Operating System Concepts, Addison-Wesley Publishing Company.

Linkage between Programme Learning Outcomes (POs) and Course Learning Outcomes (COs)

	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**
CO1	3	2	2	1	1	1	1	1	1
CO2	3	3	2	2	1	1	1	1	1
CO3	2	3	3	2	1	1	1	1	1
CO4	2	2	1	3	2	1	1	1	1

CO5	2	2	2	3	3	1	1	1	1

The contribution levels are assigned as follows:

- 3 represents High contribution
- 2 represents Medium contribution
- 1 represents Low contribution

MANIPUR UNIVERSITY
COURSE STRUCTURE FOR 4-YEAR UG PROGRAMME
BACHELOR OF DEFENCE AND STRATEGIC STUDIES

SEMESTER – 1

MULTIDISCIPLINARY COURSE

(MDC45DSS101(T)25)

INDIAN ARMED FORCES: RECRUITMENT AND COUNSELING

Learning Outcome – After undergoing this course a student will be in a position to –

- Understand the recruitment processes and eligibility criteria for joining the Indian Tri- Services and CAPF, including entry schemes and selection criteria.
- Learn effective strategies for exam preparation, physical fitness training, and stress management to enhance readiness for recruitment.
- Gain knowledge of the hierarchical rank structures within each force and comprehend the career progression pathways and opportunities for advancement.

CONTENTS

UNIT 1. Introduction to Indian Armed Forces **9 Lecture Hours**

a. Army, Navy, Air Force
b. Central Armed Police Forces (CAPF) and Coast Guard
c. Roles, responsibilities, and contributions

UNIT 2. Recruitment Processes **9 Lecture Hours**

a. Eligibility criteria
b. Entry schemes and recruitment process
c. Examination patterns, and selection procedures for Officers and Personnel

UNIT 3. Preparation and Counselling **9 Lecture Hours**

a. Effective preparation strategies for written exam, interview and physical test.
b. Counselling for aspirants: Career guidance, stress management, and mental toughness
c. Choosing the right force and career path

UNIT 4. Career Progression and Rank Structures **9 Lecture Hours**

a. Rank structures: Hierarchy in Indian Armed Forces, CAPFs and Coast Guard
b. Career pathways, promotions, and specialized roles
c. Understanding MOD & MHA, Government of India

UNIT 5. Training Institutions **9 Lecture Hours**

a. Indian Armed Forces
b. CAPF

c. Coast Guard

SUGGESTED READINGS

a. Ministry of Defence, Government of India, Indian Armed Forces Year Book, (Annual).
b. Palit, D.K., (1989) Essentials of Military Knowledge, New Delhi.
c. Venkateswaran, A.L., (1967) Defence Organisation in India, New Delhi: Government of India.
d. Journal and Article

Course Title: INTRODUCTORY MICROECONOMICS

Course Code: MDC45ECO101(T)25

Course Description

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Course learning outcome

1. The students would have learned the basic principles of microeconomic theory, important terms and concepts used in microeconomics etc.
2. The working of the markets is explained in terms of demand and supply in the market. The concept of welfare is also dealt in the context of market operation.
3. The behavior of basic units in consumption and production respectively are explained in terms of key concepts in respective areas.
4. The students would have learned the market structures of a perfectly competitive and monopoly market via their equilibrium states and relevant government policies.

Course Outline

1. Exploring the subject matter of Economics

Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs.

2. Supply and Demand: How Markets Work, Markets and Welfare

Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets.

3. The Households

The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer‘s optimum choice; income and substitution effects; labour supply and savings decision -choice between leisure and consumption.

4. The Firm

Behavior of profit maximizing firms and the production process; short run costs and output decisions; costs and output in the long run.

5. Market Structures:

Perfectly competitive markets- short run and long-run equilibrium, monopoly- short run and long run equilibrium, monopoly and anti-trust policy, government policies towards competition and imperfect competition.

Readings:

1. Karl E. Case and Ray C. Fair, *Principles of Economics*, Pearson Education Inc., 8th Edition, 2007.

2. N. Gregory Mankiw, *Economics: Principles and Applications*, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.

3. Joseph E. Stiglitz and Carl E. Walsh, *Economics*, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Multidisciplinary Course (MDC -I)

Manipur University

Academic Level 100 and Semester -I

Syllabus for MDC-1

GUIDANCE AND COUNSELLING (THEORY & PRACTICAL)

Nature of Course	MDC - I				
Course Code	MDC45EDN101(T)25 and MDC45EDN101(P)25				
Course Title	**GUIDANCE AND COUNSELLING (THEORY & PRACTICAL)**				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	2	-	1	30 (L)+30(P) hrs/Week
Course Audience	This course is designed for undergraduate students from multidisciplinary backgrounds such as Liberal Arts and Humanities, Skill-based Programmes. It is particularly suited for students aspiring to become teachers, trainers, youth workers, NGO workers, or para-counsellors.				
Proposed by	**Department of Education, School of Education, Manipur University**				
Associated Theory Courses	1. **Foundations of Educational Psychology** – Covers learner development, motivation, behavior, and mental health concepts relevant to counselling. 2. **Introduction to Development Psychology** – Explores physical, emotional, cognitive, and social development, essential for effective counselling strategies. 3. **Sociological Perspectives on Education and Inclusion** – Examines social structures, diversity, marginalization, and inclusion principles which are key to ethical and multicultural counselling.				
Skill Training Required	1. **Communication and Interpersonal Skills** – Active listening, empathy, feedback, paraphrasing, and rapport-building techniques. 2. **Life Skills Facilitation** – Training in facilitating modules on self-awareness, decision-making, emotional regulation, stress management, etc.				
Pre-Requisite Course Required	This course is designed as a foundational course. However, the following – Familiarity with psychological terms, processes, and functions enhances counselling readiness. – Offers basic understanding of how education systems function within a societal framework.				
Faculty Eligibility and Specialization (if any)	Master's Degree in Psychology, Education, Social Work, Human Development, or Allied Fields.				

Course Description:

This foundational course introduces learners to the essential concepts, types, and processes of guidance and counselling within a multidisciplinary framework. It explores the significance of counselling in educational, personal, vocational, and social contexts, equipping students with the basic knowledge, values, and interpersonal skills required to support individuals across various life domains. Emphasis is placed on understanding the stages of counselling, ethical and inclusive practices, and the development of life skills. Through experiential learning, role-play, and case analysis, students will be able to apply elementary counselling strategies in diverse settings such as schools, community centres, and youth organisations. The course fosters self-awareness, empathy, and reflective thinking while highlighting the importance of mental health and well-being for holistic development. It is suitable for students from backgrounds in education, psychology, social work, health sciences, and liberal studies.

Course Objectives (CO)

Code	Course Objectives
CO1	To introduce the foundational concepts of guidance and counselling and its multidisciplinary significance.
CO2	To identify and classify types of guidance and counselling in educational, vocational, personal and psychosocial contexts.
CO3	To develop basic skills and attitudes necessary for an empathetic counsellor.
CO4	To examine ethical principles, multicultural awareness, and inclusive practices in guidance and counselling.
CO5	To apply counselling techniques for life skills education, career development, and emotional wellbeing.

Learning Outcomes (LOs)

Code	Learning Outcomes
LO1	Describe the scope and relevance of guidance and counselling across disciplines.
LO2	Distinguish among various types and approaches of counselling (directive, non-directive, eclectic).
LO3	Demonstrate basic interpersonal, reflective listening, and communication skills in role-play sessions.
LO4	Analyze ethical issues and cultural competence in counselling practices.
LO5	Apply counselling strategies to resolve case-based issues in personal, academic, and vocational areas.

Details of course structure

UNIT I: INTRODUCTION TO GUIDANCE AND COUNSELLING

Guidance and Counselling - meaning, need, and scope; multidisciplinary nature
historical perspectives of guidance and counselling
Relationship with education and psychology.

UNIT II: TYPES OF GUIDANCE AND COUNSELLING

Educational, vocational, personal-social
individual vs group guidance
preventive, developmental, and remedial counselling.

UNIT III: THE COUNSELLING PROCESS AND SKILLS

counselling stages (rapport, assessment, intervention, termination, follow-up)
basic counselling skills: empathy, listening, questioning, paraphrasing.

UNIT IV: ETHICS, DIVERSITY, AND INCLUSION

Ethical standards (confidentiality, informed consent); cultural sensitivity;
inclusive counselling for children with special needs,
gender minorities, and marginalized groups.

UNIT V: APPLICATION AREAS AND CASE ANALYSIS

Life skills guidance
career counselling tools (interest inventories, aptitude tests)
school guidance programme
case study-based applications.

SUGGESTED PRACTICAL ACTIVITIES

The practical lists given below is for indicative practice. Students should be encouraged to do more practice and activities. Emphasis should be given to assess student's ability to demonstrate the practical wisdom of performing guidance and counselling. The list are as follows and students should record **2 out of 10 practical** in their notebook:

1. **Perform a role-play** of a basic individual counselling session applying the key stages: rapport building, problem identification, response, and closure.
2. **Demonstrate reflective listening**, paraphrasing, and questioning skills in pairs using simulated real-life student or adolescent concerns.
3. **Create a case profile** of a student with adjustment issues (academic, emotional, or social) and suggest appropriate counselling strategies.
4. **Develop and present a life skills education module** (e.g., self-awareness, stress management, decision-making) for school students using participatory methods.
5. **Write a reflective journal** after observing a counselling video or live session, noting key techniques used, ethical considerations, and personal learning.
6. **Design a guidance leaflet** or brochure for school-going adolescents on vocational/career planning with available resources and counselling tips.
7. **Conduct a mock group counselling session** on a common issue (e.g., exam anxiety, peer pressure) using group facilitation techniques and feedback.
8. **Analyze a real or simulated counselling** ethical dilemma case and provide a decision with justification based on professional ethics and inclusivity.
9. **Prepare an inclusive counselling plan** for diverse learners (e.g., gender identity, special needs, marginalised backgrounds) focusing on accessibility and empathy.
10. **Create a checklist-based observation tool** to identify counselling needs in school or community settings and apply it in a simulated environment.

PO-CO Mapping Matrix at Level 100

CO \ PO	PO1(*Foundational knowledge*)	PO2(*Understanding of practices*)	PO3(*Cognitive and technical skills*)	PO4(*Application of knowledge*)	PO5(*Communication skills*)	PO6(*Self-learning*)	PO7(*Critical thinking*)	PO8(*Ethical and human values*)	PO9(*Employability skills*)
CO1	✓	✓	✓		✓	✓	✓	✓	✓
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO4	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓

SUGGESTED READING:

1. Kochhar, S.K., (1984). Guidance and Counselling in Colleges and Universities, Sterling Publishers
2. Gibson, R. L., Mitchell, M. (1986). Introduction to Counseling and Guidance. United Kingdom: Macmillan.
3. Narayana Rao, S. (2013). Counselling and Guidance. India: McGraw Hill Education.
4. Chauhan, S. S. (1982). Principles and Techniques of Guidance. India: Vikas Publishing House Private, Limited.
5. Sharma, R. N., Sharma, R. (2004). Guidance and Counselling in India. India: Atlantic Publishers & Distributors.

Manipur University
Academic Level: 4.5 Semester – 1st
Syllabus for BA English MDC 1st Semester

Nature of Course: MDC (Multidisciplinary Course)

Course Code: MDC45ENG101(T)25

Course Title: Literature and Popular Culture

Course Level: 100

Credit Details:	**Total Credit**	**Lecture/Week**	**Tutorial/Week**	**Total Hours/Week**
	3	3		3

Course Objectives:

- To familiarize students with the concept of 'Popular Culture'
- To enable them the readership construction and examine the prowess through which books are leveled as 'Popular' or 'Best Sellers'
- To make them understand the concept of mainstream and popular literature.

Course Learning Outcomes:

The students will learn to apply the concepts of popular culture, both in the present and historical situations. It will also help in understanding how popular culture is shaped by aesthetic, social and cultural practices.

Detailed Syllabus Content:

Literature and Popular Culture 3 credits

Introduction: Understanding Concepts: Popular, Mass and Folk; The Canonical and the Popular

Unit I John Fiske *"*Popular texts*"*

Unit II "Cinema and Society: A Search for Meaning in a New Genre", by Siddhartha Basu, Sanjay Kak, Pradip Krisher (Essay)

Unit III
- Sir Arthur Conan Doyle, "The Adventure of Black Peter" (Short Story)
- Earnest Hemingway's "A Clean, Well-Lighted Place" (1933) Unit

IV Orijit Sen, *River of Stories* (Graphic Novel)

Suggested readings:

1. Storey, John. *Cultural Theory and Popular Culture: A Reader*, Greece, Pearson/Prentice Hall, 2006
2. Fiske, John. *Understanding Popular Culture*, United Kingdom, Taylor and Francis 2010
3. Doyle, Sir Arthur Conan. *The Return of Sherlock Homles*, United State, Dover.
4. Nayar, Pramod K. *The Indian Graphic Novel: Nation, History and Critique*, Rouledge, 2016.
5. Creekmur, Corey K. "The Indian Graphic Novel". *A History of the Indian Novel in English*, edited by Ulka, Anjaria, Cambridge Univ. Press, 2015, pp. 348-58.

MDC45ENV101(T)25: ENVIRONMENTAL AWARENESS

Course Objective (Summary): The course is aimed to highlight the impact of human activities on Environment. It will introduce the concept of Environmental awareness and the role played by Government, NGOs and media. It will also help students to know the environmental movements in India. The Course provides the students to understand National and international organizations in environmental conservation and campaign.

Course Learning Outcomes:

1	The students will learn the basic concepts and importance of environmental awareness.
2	They will also learn about the environmental priorities and the crisis in India, role played by the government, NGOs and media to promote and enhance the environmental awareness in the public.
3	Besides, they will also learn about various environmental movements and activities of national/international organizations to conserve the environment.

Detailed Syllabus Content:

Unit	Unit Name	Detailed Syllabus	CH
I	Man and Environment	Human activities and its impacts- local, regional and global; short-term and long-term impacts on environment; Socio-economic and cultural dimensions of environment, Concepts of carrying capacity; Environmental priorities in India and Environmental crisis.	11
II	Environmental Awareness	Definitions and concepts of Environmental Awareness, role of Government, NGOs and media, Biosphere and socioeconomic and cultural environment and their interactions; Environment awareness programme in Northeast India with special emphasis on Manipur.	11
III	Natural Resources and Conservation	Resource conservation; Ecological security, Common Property Resources (CPR), Environmental movements in India-Chipko, Apiko, Silent Valley, Tehri Dam, Narmada Dam.	11
IV	Organizations of National and International importance	National and international organizations involved in environmental conservation and campaigns Green Peace, WWF, WHO, IUCN, FAO, UNEP and UNESCO; Conventions and Summits on Environment; Carbon trading and sequestration, Clean Development Mechanism (CDM), Kyoto protocol.	12

Suggested Readings:

1 Meenakshi, P. (2005) Elements of Environmental Engineering. Eastern Economy Edition, Prentice Hall, India.
2 Patil, R.B. (2009) Environment in Indian Society- Problem and Prospects. Mittal Publications, Daryaganj, New Delhi.
3 Ramakrishnan, P.S. (2002) Sustainable Development. UNESCO, New Delhi.
4 Senapati, T. and Sahoo, R.K. (2009) Environmental Education and Pollution Control. Mittal Publications, Daryaganj, New Delhi.
5 Thomas A. et al. (1995) Trading with the Environment Ecology: Economics, Institutions and Policy. Earthscan, UK.
6 Uberoi, N.K. (2004) Environmental Management. Excel Books, New Delhi.
7 Vij J. Nornam and Axelrod (1999) The Global Environment, Institutions, Law and Policy. Earthscan Publishers Ltd, UK.

PAPER 3: **UNDERSTANDING OF PAINTING, SCULPTURE, APPLIED ART, PRINT MAKING**

PAPER CODE: **MDC45BFA101(T)25 & MDC45BFA101(T)25** CREDIT -3

Objectives: The paper provides students with a holistic and integrated understanding of Fine Arts by giving knowledge and methods from multiple academic disciplines of Fine Arts. The approach encourages critical thinking, creativity and problem-solving by allowing the learners to explore connections between diverse fields of Fine Arts. It bridges the gaps between traditionally separate fields, promoting collaboration and innovation in addressing real-world challenges.

Contents:

- Visual arts in culture and society
- Creativity and communication
- Visual metaphor
- Experiments and expressions with diverse fields of visual art

Course Learning Outcome: By the end of this course, students will be able to identify and apply the basic elements and principles of visual art in both analysis and creation. They will develop an understanding of various artistic media, techniques, and historical movements, enabling them to recognize key styles and contributions of major artists. Students will also enhance their ability to interpret and critique visual artworks thoughtfully, and express personal ideas creatively through their own art-making processes.

Manipur University
Academic Level:4.5 and Semester:I
Syllabus for MDC – 1 (Theory)

Nature of Course	MDC				
Course Code	MDC45GEG101(T) 25				
Course Title	Geography of Manipur				
Course Level					
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	3	2	1	--	3
Course Audience	Students pursuing First Semester				
Proposed by (for Non-Core Course if any)					
Pre Requisite (if any)					
Skill Training Required (if any)					
Pre Requisite Course Required (if any)					
Faculty Eligibility and Specialisation (if any)					

Course Objectives:

1. Understanding the geographical features of Manipur.
2. General overview on people and demographic dimensions of Manipur.
3. General overview on economic dimensions of Manipur.

Course Learning Outcomes:

Upon completion of the course the learner will be able to:

1. Understand the physical aspects of Manipur.
2. Understand the population dynamics of Manipur.
3. Understand the economic dimensions of Manipur.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Land	Introduction, Physical Features, Drainage, Climate, Soil, Natural Vegetation	1
II	People and Economy	People of Manipur, Population, Settlement, Agriculture, Industries, Transport and Communication, Trade and Commerce	1
III	Tutorial	--	1

Suggested Readings:

1. Bhattacharyya, N. N. (2006): Manipur - Land, People and Economy. New Delhi: Rajesh Publications.
2. Laiba, Dr. M.T. (2018): Geography of Manipur, Imphal.
3. Singh, R. P. 1982. Geography of Manipur. New Delhi: National Book Trust.
4. Singh, Th. Nabakumar (2011): Geography of Manipur, New Delhi: Rajesh Publications.

Note: Internet sources may be used for the areas for which books are not available.

Additional Readings:

1. Johnstone, S.J. (1971): Manipur and the Naga Hills. Delhi: Vivek Publishing House.
2. Gopalkrishnan, R. (1996): The North-East India: Land, Economy and People. New Delhi: Har Anand Publications.

Course Teaching-Learning Process

The important relevant teaching and learning processes involved in this course are –

- Class lectures
- Seminar
- Group discussion and workshop
- Question Framing
- Quizzes

Linkage between Programme Learning Outcome (POs) and Course Learning Outcome (COs)

L	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CO1	3	2	1	2	2	0
CO2	3	2	1	2	2	0
CO3	3	2	1	2	2	0

3: High, 2: Medium, 1: Low, O: No Correlation

Assessment Methods

- Written examination
- Close-book and open-book test
- Problem solving exercise
- Individual and group project
- Seminar and presentation
- Interaction session

MANIPUR UNIVERSITY
Academic Level 4.5
Semester I
Syllabus for UG Course in Geology (Theory)

Nature of Course	MDC				
Course Code	MDC45GEL 101(T) 25				
Course Title	Understanding Planet Earth				
Course Level	100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	2	2			
Course Audience					
Proposed by (for Non-Core courses)	Department of Earth Sciences / Board of Studies……, Manipur University, etc.				
Pre Requisites (if any)	1. 2.				
Skill Training Required (if any)	1. 2.				
Pre-Requisite Course Required (if any)	1. 2.				
Faculty Eligibility and Specialization (if any)					

Course Objectives:

This fundamental course is designed to introduce students to the scientific study of the Earth – its structure, materials, surface processes, features and dynamic forces shaping it over geological time. It fosters the ability to decode Earth's history through rocks, fossils, and maps by building essential skills in geological observation, measurement, interpretation, etc., enabling the students to cultivate more understanding on Earth's systems and processes through both theoretical concepts and practical engagement.

Course Learning Outcomes:

Upon completion of the course, students will be able to:

- Demonstrate an observable and specific understanding as a scientific discipline, including its scope, sub-fields/disciplines, and relevance to natural management and societal needs.
- Identify and classify Earth's materials, minerals and rocks based on measurable physical properties, using hand specimens.
- Interpret the geological time scale, fossil records with observable evidence, explaining significant events in Earth's history through specific and measurable timelines.
- Analyse and explain Earth's internal dynamics such as plate tectonics, volcanism, and seismic activity, etc., through observable structures (folds, faults, etc.).
- Evaluate Earth's surface processes using specific geomorphic features, applying measurable and observable methods (e.g., drainage pattern identification, map interpretation).

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Introduction to Geology	Definition, scope and branches of Geology and relationship with branches of science. Importance of Geology in societal needs. Origin/formation of the Solar System and Earth. Composition, and age of the Earth. Internal constitution and structure of the Earth. Earth's lithosphere, atmosphere, and hydrosphere.	
II	Earth's Materials and Resources	Minerals – definition, physical properties, and classification. Rocks – definition, types (igneous, sedimentary, and metamorphic rocks), their distinguishing features and basic classification of each rock type/category. Natural resources.	
III	Geological Time and Earth's History	Geological Time Scale - Stratigraphic principles, and correlation. Fossils – definition, types of fossils, and importance. Major climatic, geologic, and biologic events through Earth's history. Concept of uniformitarianism and catastrophism.	
IV	Earth's Dynamic Processes	Basic ideas on continental drift, sea floor spreading. Plate Tectonic Theory, types of plate boundaries. Study on earthquakes and volcanoes, and seismic zonation of India.	
V	Earth's Surface Processes (Geomorphology)	Basic Concepts of Geomorphology. Weathering and Erosion. Soil, soil formation, soil profile and soil types. A brief account of the geological work of natural agents - river, wind, ocean, and glacier, and landforms associated with them. Drainage patterns. Geomorphic subdivisons of India and their salient features.	

Suggested Readings

1. Grotzinger, J., Jordan, T.H., Press F., Siever, R. (2007) Understanding Earth, W.H. Freeman & Co, New York
2. Holmes, A. (1992) Principles of Physical Geology, Chapman & Hall, London.
3. Mahapatra, G.B. (1994) A Text book of Physical Geology, CBS Publishers.
4. Thornbury, W.D. (2018) Principles of Geomorphology, New Age International.
5. Siddhartha, K (2019) The Earth's dynamic surface – A Text of Geomorphology, Kitab Mahal Publishers, New Delhi.

Additional Readings:

1. James, S. Monroe & Read Wicander (2001) The Changing Earth: Exploring Geology & Evolution, Brooks/Cole, USA.

Manipur University
Academic Level 4.5
Semester I
Syllabus for UG Course in Geology (Practical)

Nature of Course	MDC				
Course Code	MDC45GEL101(P)25				
Course Title	Understanding Planet Earth				
Course Level	100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	1	1		2/3 hrs	

Course Objectives:

The practical component of this course is designed to translate theoretical knowledge into observable, measurable, and hands-on skills essential to geological studies. It enables students to identify Earth materials, minerals and rocks, interpret geological maps, and structures, and understand Earth's dynamic and surface processes.

The course emphasises:

- Direct engagement with geological specimens and maps.
- Skill-based interpretation of geological time, and structures.
- Integration of field-based and laboratory-based observations.

Course Learning Outcomes: Upon completion of the course the learners will be able to

- Identify and describe specific rock forming minerals and major rock types in hand specimens, using diagnostic, observable physical properties.
- Correlate major life forms and geological events with the Geological Time Scale through measurable stratigraphic interpretation.
- Map the Seismic zonation of India.
- Interpret drainage pattern using topographic maps.

Detailed Syllabus Content

Sl. No.	List of Practical	No. of Sessions
1.	Identification of minerals and rocks (representative ones) based on their physical properties.	2
2.	Exercises on important life forms and major geological events through Geological Time Scale, correlation, and reconstruction of Earth's history.	2
3.	Plotting of major types of plates, plate boundaries on the world map provided	2
4.	Identification and interpretation of different drainage patterns.	2
5.	Identification and interpretation of geomorphic features from the topographic map.	2

Undergraduate Hindi 1st Year

विस्तृत पाठ्यक्रम **क्रेडिट – 3**

प्रश्नपत्र – 3 MDC – 103
तुलनात्मक साहित्य : हिंदी और मणिपुरी के विशेष संदर्भ में

पाठ्यक्रम का उद्देश्य – इस पाठ्यक्रम का उद्देश्य विद्यार्थियों को दो भिन्न भाषाओं के साहित्य के स्वरूप एवं उनकी प्रकृति से अवगत कराना है | इसके साथ ही वे इस पाठ्यक्रम के माध्यम से दो अलग-अलग समाजों एवं संस्कृतियों से परिचित हो सकेंगे |

पाठ्यक्रम अधिगम प्रतिफल :

1	विद्यार्थी विभिन्न भाषाओं के साहित्य की रचनाशीलता से अवगत हो सकेंगे	
2	विद्यार्थी विभिन्न भाषिक समाजों की समस्याओं के प्रति सचेष्ट हो सकेंगे	
3	भारत के बहुभाषिक वैशिष्ट्य से परिचित हो सकेंगे	
4	विभिन्न भाषाओं के विधागत वैशिष्ट्य को जान सकेंगे	
5	विभिन्न भाषाओं की सृजनात्मकता से अवगत हो सकेंगे	

विस्तृत पाठ्यक्रम विवरण :

इकाई 1. तुलनात्मक अध्ययन की अवधारणा एवं परंपरा |
इकाई 2. तुलनात्मक अध्ययन : स्वरूप एवं समस्याएँ |
इकाई 3. तुलनात्मक अध्ययन के क्षेत्र तथा तुलनात्मक अध्ययन के सिद्धांतों का सामान्य परिचय |
इकाई 4. हिंदी और मणिपुरी के किसी एक उपन्यास अथवा दो कहानियों का तुलनात्मक अध्ययन |
इकाई 5. हिंदी और मणिपुरी के किसी एक नाटक अथवा तीन कविताओं का तुलनात्मक अध्ययन |

संदर्भ ग्रंथ :

1. तुलनात्मक साहित्य : सैद्धांतिक परिप्रेक्ष्य, शुक्ल (सं.), हनुमान प्रसाद, राजकमल प्रकाशन, दिल्ली |
2. तुलनात्मक साहित्य, डॉ. नगेंद्र (सं.), नेशनल पब्लिशिंग हाउस, दरियागंज, नई दिल्ली |
3. तुलनात्मक अध्ययन : भारतीय भाषाएँ और साहित्य, राजुरकर (सं.), वाणी प्रकाशन, नई दिल्ली |
4. तुलनात्मक अध्ययन : स्वरूप और समस्याएँ, बोरा, राजमल, वाणी प्रकाशन, नई दिल्ली |
5. तुलनात्मक साहित्य की भूमिका, इंद्रनाथ चौधरी, दक्षिण भारत हिंदी प्रचार सभा, चेन्नई |
6. तुलनात्मक अध्ययन : भारतीय भाषाएँ और साहित्य, बोरा, राजमल, वाणी प्रकाशन, नई दिल्ली |

Manipur University
Academic Level 4.5
Level No. 100 and Semester 1
Semester No. 1
Syllabus for MDC
Name of the Course MDC-1 (Theory)

Nature of Course	MDC				
Course Code	MDC45HIS101(T)25				
Course Title	INTRODUCING NORTH EAST INDIA				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	2	1		3
Course Audience	For 1st Semester students pursuing FYUP				
Proposed by (for Non Core courses)	Department of History and Department of Ancient History & Archaeology & Undergraduate Board of Studies History Manipur University.				
Pre Requisites (if any)	1. 2.				
Skill Training Required (if any)	1. 2.				
Pre-Requisite Course Required (if any)	1. 2.				
Faculty Eligibility and Specialization (if any)					

Course Objective (Summary):
This course attempt to provide a brief introduction to North East India which region has remained isolated from the rest of the country because of its location and terrain. However, the north east forms one of the important regions of India comprising of eight states namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim inhabited by a number of communities. These states command special importance in India, not only because of their location but also their cultural and historical uniqueness. The region shares an international border of 5,182 kilometres (3,220 miles) (about 99 percent of its total geographical boundary) The landscape, the range of communities and geographical and ecological diversity make these states quite different from other parts of the country.
The states have distinct cultures and multiple ethnic groups and are a fine example of unity in diversity. The variety of ethnic groups, languages and religions reflect the multi-cultural character of the states. As the government of India is vigorously pursuing 'Act East Policy' over the last few years it becomes imperative for the learners to have a fair idea about the region, of its people, their history, culture and lived world.

Course Learning Outcomes: Upon completion of the course the learners will be able to

1.	Have a fair idea of the region called North east India and change the perception of North-Eastern Region from relatively isolated and remote territory to future potential economic growth engine of the country.
2.	Understand the ethnic composition, cultural diversity and rich heritage of the North-Eastern Region.
3.	Explore socio-economic and commercial potential of North-Eastern Region.
4.	Understand contribution of the region in India's nation building process
5.	Appreciate and inculcate the idea of unity in diversity

Detailed Syllabus Content

Provide only the Unit-wise Credit: (Do not provide marks). Units and credits should be distributed uniformly to ensure balanced content and workload.

Introducing North East India

Unit	Unit Name	Detailed Syllabus	Credit
I	Geographical and Historical Outline	Geographical landscape and Historical Outline of North East India: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura	1
II	Communities	People and their lived world: language and literature, fairs and festivals, places of interest and prominent personalities	1
III	Economy	Agriculture, industry, tourism and biodiversity	1

Note: Additional units may be added as required, ensuring alignment with total credit norms.

Suggested Readings

1. NCERT: North East India: People, History and Culture, NCERT, 2017
2. NCERT: Women of North-East India: Making a Difference, NCERT, 2018
3. Amalendu De: North-East India (Society, Culture and Development), Asiatic Society, 2016
4. N.N. Bhattacharya: North East India: A Systematic Geography, Delhi, 2018

Additional Readings:

1. K.R. Dikshit & Jutta K. Dikshit (ed.): North-East India: Land, People and Economy, Springer, 2014
2. Sanjib Baruah, In the Name of the Nation, Navayana, 2021

Course Teaching-Learning Process

The important relevant teaching and learning processes involved in this course are;

- Class lectures
- Seminars
- Tutorials
- Question framing
- Short answer type questions
- Long answer type questions
- Objective type questions
- Multiple choice questions
- Quizzes

Linkage between Programme Learning Outcomes (POs) and Course Learning Outcomes (COs)

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	CLO1	CLO2	CLO3
CO1	2	3	1	0	1	2	0	2	1	3
CO2	2	3	1	0	1	2	0	2	1	3
CO3	2	3	1	0	1	2	0	2	1	3
CO4	2	3	1	0	1	2	0	2	1	3
CO5, etc.	2	3	1	0	1	2	2	2	1	3

Assessment Methods

- Oral and written examinations
- Closed-book and open-book tests,
- Problem-solving exercises,
- Seminar and presentations,
- Interactive sessions.

MDC45HSC101(T)25a: Introduction to Dietetics

Credit –(3)

Contact Hour – 45 Hrs.

Nature of Course	**MDC-1**				
Course Code	**MDC45HSC101(T)25**				
Course Title	**Introduction to Dietetics**				
Course Level	**Level 100**				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3
Course Audience	Major Students enrolled in the FYUGP in Home Sciences				
Proposed by (for Non- Core courses)	No board of studies				
Pre Requisites (if any)	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
Skill Training Required (if any)	Diet Planning for different Diseases				
Pre-Requisite Course Required (if any)	10+2 Multi-Disciplinary				
Faculty Eligibility and Specialization (if any)	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

The course aims to provide a foundational understanding of dietetics and the role of dieticians and nutritionists. It covers the classification and functions of nutrients, the concept of balanced diets, and recommended dietary allowances (RDA). Students will learn about nutritional needs during different life stages and the principles of therapeutic diets. The course also includes dietary modifications for various diseases and special feeding methods. Additionally, it focuses on public health nutrition and government programs to combat malnutrition.

Course Outcomes:

After completing this course, students will be able to:

- Explain the concepts and importance of dietetics, the role of dieticians and nutritionists, and the principles of balanced nutrition including RDA and food groups.
- Describe nutritional requirements and dietary guidelines across the human life cycle, including infancy, childhood, adolescence, adulthood, pregnancy, lactation, and old age.

- Apply the principles of diet therapy and identify dietary modifications required in therapeutic diets, including consistency and nutrient alterations.
- Analyse dietary management strategies for common diseases and metabolic disorders such as obesity, diabetes, cardiovascular conditions, and gastrointestinal issues.
- Understand public health nutrition initiatives and explain the role of national and international programmes and agencies in combating malnutrition and promoting community health.

UNIT – I: Introduction to Dietetics

Definition and importance of dietetics, Role of Dietician and Nutritionist. Basic Concepts of Nutrition, Nutrients – Classification, Functions, Food pyramid, Basic 5 food groups, RDA.

UNIT – II: Nutrition during the Life Cycle

Nutrition for various life cycles - infancy, childhood, adolescence, adulthood, geriatric nutrition, Nutrition related problems - PEM, Vit-A deficiency, Anaemia.

UNIT – III: Diet Therapy

Objectives of diet therapy, Factors affecting in planning therapeutic diets, Diet Modifications - clear fluid, full fluid, semi-solid, soft. Special feeding methods - intravenous feeding, tube feeding, parenteral feeding, pre & post-operative diets.

UNIT – IV: Dietary Modifications in Different Disease Conditions

Dietary management in – Obesity, Underweight, Cardiovascular diseases, peptic ulcer, diarrhoea, ulcerative colitis, constipation, dysentery, jaundice. Diet in fever, tuberculosis. Diet in metabolic disorders -Diabetes mellitus, Gout, Arthritis.

UNIT – V: Public Health Nutrition

Factors affecting health in a community, Assessment of nutritional status, Immunization, and its importance. Government programmes to combat malnutrition - ICDS, NMMP, Anaemia prophylaxis programme, Vit-A prophylaxis programme. International agencies combating malnutrition - WHO, FAO, UNICEF, CARE.

REFERENCES

1. Indian Council of Medical Research (ICMR). Nutrient Requirements and Recommended Dietary Allowances for Indians. National Institute of Nutrition (NIN), Hyderabad. https://www.nin.res.in/
2. Joshi, S. A. Nutrition and Dietetics: With Indian Case Studies. 4th ed., McGraw Hill Education (India) Pvt. Ltd., 2019.
3. Mahan, L. K., and Sylvia Escott-Stump. Krause's Food, Nutrition and Diet Therapy. Saunders, 2004.

4. Park, K. Preventive and Social Medicine. 28th ed., Banarsidas Bhanot Publishers, 2025.
5. Robinson, C. H. Normal and Therapeutic Nutrition. Macmillan, 1990.
6. Srilakshmi, B. Dietetics. 8th ed., New Age International Publisher, 2021.
7. Sumati, R., and M. V. Rajagopal. Fundamentals of Food, Nutrition and Diet Therapy. 5th ed., New Age International Publishers, 2007.
8. Swaminathan, M. Advanced Textbook on Food and Nutrition. Vols. I & II, BAPPCO, 1991.
9. The Educational Planning Group. Food and Nutrition. 3rd ed., Arya Publishing House, 1991.
10. UNICEF. Nutrition Programme Resources. https://www.unicef.org/nutrition
11. World Health Organization (WHO). Nutrition Guidelines and Resources. https://www.who.int/health-topics/nutrition

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓
CO2	✓	✓	✓		
CO3	✓	✓	✓		
CO4	✓		✓	✓	✓
CO5	✓	✓	✓		

MDC45HSC101(T)25b: Parenting and Child Development

Credit –(3)

Contact Hour – 45 Hrs.

Nature of Course	**MDC-1**				
Course Code	**MDC45HSC101(T)25b**				
Course Title	**Parenting and Child Development**				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3			3
Course Audience	Major Students enrolled in the FYUGP in Home Sciences				
Proposed by (for Non- Core courses)	No board of studies				
Pre Requisites (if any)	Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education.				
Skill Training Required (if any)	1.Nurturing and Emotional Support 2.Communication & Social Skills 3.Positive Discipline & Boundaries				
Pre-Requisite Course Required (if any)	10+2 Multi-Disciplinary				
Faculty Eligibility and Specialization (if any)	Master's Degree in Home Science specialised in Food & Nutrition, Human Development, Family Resource Management, Textile & Clothing and Extension Education with Ph.D. and/or NET qualification will be preferred.				

Course Objectives:

This course aims to provide a foundational understanding of child development and the role of parenting across life stages. It covers key principles of growth, influencing factors, and developmental challenges such as disabilities and mental health issues. Students will explore the impact of family, community, and socialization on a child's emotional, moral, and behavioural development. The course also examines various parenting styles, responsibilities, and their effects on child outcomes, including in special situations like single, adoptive, or grandparent-led families. Additionally, students will learn about parenting interventions, support systems, and the roles of government and NGOs in promoting healthy child development.

Course Outcomes:

After completing this course, students will be able to:

- Explain the principles, stages, and influencing factors of child development, and identify key challenges such as disabilities, trauma, and mental health issues.
- Analyse the role of family, community, and socialization agents in shaping emotional, moral, and behavioural development in children.
- Describe the meaning, types, and responsibilities of parenting, and evaluate its impact on various aspects of child development across life stages.
- Discuss the roles, challenges, and adaptations required in special parenting situations including single parenting, adoption, parenting with special needs, and non-traditional family structures.
- Identify and assess parenting intervention programs and support systems, and understand the role of government, NGOs, and ethical considerations in effective parenting support.

UNIT – I: Introduction to Child Development:

Child development- Definition,, Scope of Child Development, Principles of Growth and Development and its Influencing Factors, Stages of Child Development, Challenges in Child Development- disabilities, trauma and abuse, mental health issues.

UNIT – II: Role of Family and Community, Socialization in Child Development:

Meaning of family, community, Socialization, Significance of family and socialization, socialization agents in different developmental aspects- emotional support, modelling, behavioral, moral ethical developments, attachment and bonding, influence of community and the peers.

UNIT – III: Parenting and Child Development:

Meaning, importance, role and responsibilities of parenting, types of parenting and across different life stages, factors influencing parenting, impacts of parenting on child development- Physical and motor, Language, Emotional, Psychological, Social, Cognitive, Academic, Moral and ethical, Long-term life outcomes.

UNIT – IV: Parenting Roles in Special Situations:

Parenting in special situations- single and co-parenting, adoptive parenting, parenting with special needs, divorced or separated parents, parenting in conflict zones or displacement, grand parenting, skipped generation families, gender neutral parenting.

UNIT – V: Parenting Intervention and Programs:

Meaning,, benefits of Parenting Intervention, Types,, and models of effective parenting intervention programs, Implementation strategies, Parenting support systems, Education programs, Roles of Government and NGO, Ethical consideration in intervention.

REFERENCES:

1. Chaudhary, Nandita. Listening to Culture: Constructing Reality from Everyday Talk. Sage Publications, 2004.
2. Devadas, Rajammal P. A Text Book on Child Development. McMillan India Ltd.
3. Hurlock, Elizabeth B. Child Development. McGraw-Hill Education, 2001.
4. Hurlock, Elizabeth B. Developmental Psychology. Tata McGraw Hill Publishing Company.
5. Mangal, S. K. Advanced Educational Psychology. Prentice-Hall of India, 2005.
6. Pandey, R. Parenting Education: Indian Perspective. Shipra Publications, 2008.
7. Sanders, Matthew R., and Alina Morawska. Handbook of Parenting and Child Development Across the Lifespan. Springer International Publishing AG, 2018.
8. Sarada, D. Special Needs Children and Inclusive Education in India. Neelkamal Publications, 2008.
9. Sehgal, M. Parenting in India: Issues and Practices. Meenakshi Prakashan, 2004.
10. Sobita Devi, K. Child Rearing in Manipur: Meiteis, Muslims and Tribes. Pragun Publications, 2012.

CO-PSO mapping matrix

COs \ PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓		✓
CO2	✓	✓		✓	✓
CO3	✓	✓	✓	✓	✓
CO4	✓	✓	✓	✓	✓
CO5	✓	✓	✓	✓	✓

Course Title: Linguistics and Language Ecology of Manipur (QL-45; Credit 3)

Course Code: MDC45LIN101(T)25

Learning Outcomes:

1. To describe the nature, features, and functions of human language and distinguish it from animal communication.
2. Identify branches of linguistics and understand its interdisciplinary characteristics.
3. Describe the concept of language ecology, language families, and the relationship between language, culture, and the environment.
4. To define language maintenance, shift, and death.
5. Examine the linguistic landscape of Manipur, including multilingualism, language contact, script, and the role of language in identity.

1.1. What is language?; salient features of human language; language and communication; Animal communication; Functions of language; Branches of linguistics, Interdisciplinary characteristics. (1 credit)

1.2. Introduction to Language Ecology: Concept and Scope of language ecology; Notion of language family; Criteria for classifying language family; Language as part of cultural and ecological system: Figures of speech: Language maintenance and language shift.

(1 Credit)

1.3. Linguistic Landscape of Manipur: Languages spoken in Manipur; Characteristic features of Languages spoken in Manipur; Multilingualism and language contact; Script and Writing systems in Manipur, Status of Manipuri language; Language and identity.

(1 credit)

Reading List:

1. Chelliah, S. L. (1997). A Grammar of Meithei. Germany: De Gruyter.
2. Comrie, B. (1989). Language universals and linguistic typology: syntax and morphology. Chicago: University of Chicago Press.
3. Grierson, G. A. (1904). Linguistic Survey of India. India: Office of the superintendent of government printing, India.
4. Lemaina Veikho, S. (2021). Grammar of Poumai Naga (Poula): A Trans-Himalayan

Language of North-East India. Netherlands: Brill.

5. Hodson, T. C. (1908). The Meitheis. United States: Creative Media Partners, LLC.

6. Primrose, A. J. (1888). A Manipuri Grammar, Vocabulary, and Phrase Book: To which are Added Some Manipuri Proverbs and Specimens of Manipuri Correspondence. India: Assam Secretariat Press.
7. Shankara Bhat, D. N., Ningomba, M. S. (1997). Manipuri grammar. Germany: LINCOM EUROPA.
8. Yashawanta Singh, C. (2000). Manipuri Grammar. India: Rajesh Publications.

6.

BA FIRST YEAR: SEMESTER-I
MULTIDISCIPLINARY PAPER-I

Course Objectives (COs) and Course Learning Outcomes (CLOs): All undergraduate students must complete this introductory-level of course termed as MDC (Multidisciplinary Course) **MDC45MAN101(T)25: Manipuri Language and Literature -Basic** to enhance intellectual breadth as part of a liberal arts and sciences education. The students' who are already studied the relevant subject in this course at the 12th-grade (higher secondary school) level in the intended major or minor are not permitted to select this course. The course helps the students to understand human behavior, society and culture of the relevant community/ communities the course covered. It also enables the learners to understand the growth & development of History of Meitei Script and status of Manipuri Language and thus help the students to understand about the ABC of Manipuri Language & Literature.

Course No. : **MDC45MAN101(T)25**

Course Title : **Manipuri Language and Literature -Basic**

Mark : ***100 Marks (70m -End Sem+15m -Internal + 10m -Home Assignments+5m-Attandance)***

Credits ***: 3 Credits***

Contact Hours ***: 45 Hours (15 hrs x 3)***

Academic Level : **Nil**

Course Content:

Unit -1: Manipuri Language **-40 (1.2 Credits-18 Hrs)**

(i) Manipuri Language : growth and development -15
(ii) History of Meitei Script -15
(iii) Status of Manipuri Language. -10

Unit- 2: Manipuri Literature **-60 (1.8 Credits-27 Hrs)**

(i) Old -15
(ii) Medieval -15
(iii) Modern. -30

References:

1. Ch. Kalachand Shastri, *Asamba Manipuri Sahityagi Itihas*, Meetei Mayek Edition, Imphal, 2023
2. Chongtham Manihar, *A History of Manipuri Literature*, Sahitya Akademi: New Delhi, 1996
3. Dr. K. Bimola, *Manipuri Lonmitki Shaklon Khara*, JN Publication: Imphal, 2022
4. I.S. Kangjam, *Longi Wareng*, Bina Mandir: Imphal, 1977
5. MS Ningomba, Meitei *Lonmit*, Saraswati Book House: Imphal, 1992
6. N. Khelchandra Singh, *Ariba Manipuri Sahityagi Itihas*, Meetei Mayek Edition, Imphal, 2020
7. Naharol Sahitya Premi Samiti, *Manipuri Sahityagi Mamal Leppa*, Imphal, 1st Edition, 1983
8. P. Gunindro, *Manipuri Cultureda Mityeng Ama Vol-I*, 1st Edition, Poknapham Publications: Imphal, 2000
9. P.C. Thoudam, *Remedial Manipuri*, S.I. & Co.: Paona Bazar, Imphal, 1991
10. R.K. Jhalajit Singh, *A History of Manipuri Literature*, 2nd Edition, Imphal, 1987 W. Tomchou Singh, A Study of Meetei Phonology, Imphal 1976

Media Literacy

Nature of Course	**MDC-1**				
Course Code	MDC45MCC101(T)25				
Course Title	**Media Literacy**				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3	1		4
Course Audience					
Proposed by (for Non Core courses)	**Department of Mass Communication, Manipur University**				

Course Objectives:

The course aims to enable students to critically understand the dynamics of media, media economics, and media representation. It will help the students to develop the ability to decode media content which they encountered every day. This will lead to clarify the gap between reality and media representation by demystifying the control mechanisms and political influences that shape media narratives.

Course Learning Outcomes:

Upon completion of the course the learners will be able to

1.	The student will be able to read media messages responsibly.
2.	The students will be able to analyse the dynamics of media, media economics and the representation of media.
3.	It will develop the ability to decode media content which they encountered every day
4.	It helps in demystifying the control mechanisms and political influences that shape media narratives.

Detailed Syllabus

Unit	Unit Name	Detailed Syllabus	Contact Hours
I	Understanding Media Literacy	Definition of media literacy; Nature of media audience; Protecting audiences from negative media content	9
II	Representation in Media	Exposure to media messages; Media presentation and reality; Media economics; Fake news, Malinformation, Misinformation and Disinformation,	9
III	Political Economy of Media	Perspective of news: Political philosophy and economics perspective; Imbalance and bias in news; Propaganda; Media ownership patterns	9
IV	Media Culture	Advertising literacy: Stereotypes and personal values; Technology and cultural production; Media tools and its formats	9
V	Media Effects	Media effect; Reality shows; Media violence; Security issues; Negative effects of media	9
Total			**45**

Suggested Readings

1. Aufderheide, P. (Ed.). (1993). *Media literacy: A report of the national leadership conference on media literacy*. Aspen, CO: Aspen Institute.
2. Ferguson, R. (2001). *Media education and the development of critical solidarity*. Media Education Journal, 30, 37 /43.
3. Fiske, J. (1990). *Introduction to communication studies (2nd edn*). London: Routledge.
4. Gentile, Doughlas A, Media *Violence and Children: A Complete Guide for Parents and Professionals*, Greenwood Publishing Group, 2003.
5. Hodkinson, Paul, *Media, Culture and Society: An Introduction*, Sage Publications, 2010.
6. Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.
7. Potter, James W. *Media Literacy*, Sage Publications, 2011.
8. Potter, W. J. (2004). *Theory of media literacy: A cognitive approach.* Thousand Oaks, CA: Sage.

MDC45MSC101(T)25 : Quantitative Aptitude

Nature of Course	**MDC**			
Course Code	**MDC45MSC101(T)25**			
Course Title	**Quantitative Aptitude**			
Course Level	**100**			
Credit Details	**Total Credit**	**Lecture/Week**	**Tutorial/Week**	**Total Hour/Week**
	3	**3**	**0**	**3**
Course Audience	**BA/BSc First Semester**			
Proposed by	**Board of Under-Graduate Studies of Department of Mathematics, Manipur University**			
Pre Requisites	**Concept of unitary methods, ratio and proportion, mensuration, arrangements**			
Pre Requisite Course Required	**10 Mathematics**			
Faculty Eligibility and Specialization	**Not required**			

Course Objectives: The main aim of this course is to gain knowledge of elementary ideas about arithmetic abilities which one finds in daily life. It will help the students from any background to get acquainted with this knowledge and get prepared for any competitive examinations.

Course Learning Outcomes: This course will enable the students to:

1.	gain sufficient ideas of mental and arithmetic abilities.
2.	handle mental/quantitative aptitude test questions with great ease.
3.	acquire the skill of solving problems of daily life quickly.
4.	formulate real-life problems mathematically and solve using quantitative techniques.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	L	T	P	Total
I	Arithmetic Ability I	Chain Rule –Time and Work – Pipes and Cisterns Time and Distance – Problems on Trains – Boats and Streams	12	-	-	12
II	Arithmetic Ability II	Simple Interest – Compound Interest – Stocks and Shares.	9	-	-	9
III	Arithmetic Ability III	Clocks – Area	6	-	-	6
IV	Arithmetic Ability IV	Volume and Surface Area	9	-	-	9
V	Arithmetic Ability V	Permutations and Combinations.	9	-	-	9

Suggested Readings

1. Scope and treatment as in "*Quantitative Aptitude*", S. Chand and Company Ltd. Ram Nagar, New Delhi (2007).

Additional Readings:

1. NCERT Mathematics text books for standard VIII, IX, X, XI.

Teaching plan (MDC45MSC101(T)25: Quantitative Aptitude):

1. **Week 1&2:** Chain Rule –Time and Work – Pipes and Cisterns,[1] Chapters 14, 15 & 16.
2. **Week 3&4: Time** and Distance-Problems on Trains-Boats and Streams [1] Chapters 21, 22 & 29.
3. **Week 5-7:** Simple Interest-Compound Interest-Stocks and Shares. [1] Chapters 17, 18
   & 19.
4. **Week 8 & 9:** Clocks – Area [1] Chapters 24, 25.
5. **Week 10-12:** Volume and Surface Area. [1] Chapter 28.
6. **Week 13-15:** Permutations and Combinations. [1] Chapters 30 & 31.

Assessment Methods

- Oral and written examinations,
- Problem-solving exercises,
- Individual and group project reports,
- Interactive sessions,

Undergraduate Programme in Philosophy
FIRST-YEAR (Semester I)
MDC45PHI101(T)25

DANCE AND MUSIC IN MANIPURI CULTURE
(**Multidisciplinary Course**)

Course objective:

The course is to acquaint the learners with the fundamental principles of Manipuri Dance and Music.

Course Learning Outcome:

The course will help the learners in realising how aesthetics principles are used as medium of ritual practice.

Unit I:	**Dance and Music as Sacred Performance Text**
	1. Varieties of religious experience in Manipuri Dance and Music
	2. Role of Dance and Music in the State formation of Manipur
	3. Gods and Goddesses in ecstasy (Lai Haraoba): Cosmogony. Cosmology, Theogony of the sacred Lai-Haraoba ritual.
Unit II:	**Nata Sankirtana as Mahayajna**
	1. The evolution of Nata Sankritana as a form of worship in Manipur.
	2. The sight, the sound, and the body in the Nata Sankritana – analysis of the performance text.
	3. The transcendence of the self in love of infinite as depicted in Manipuri Raas Leela – analysis of the soul and forms of Raas Leela.

Suggested Readings:

S. Shyamkishore Singh & Bhagat Oinam (eds), History of Science, Philosophy and Culture, Vol. VI. Part 9, *Perspectives on Manipuri Culture*, New Delhi: Centre for Studies in Civilization Publication, 2017. [See the articles of Khulem Chandrasekhar & S. Shyamkishore Singh, L. Bishwanath Sharma, Rekha Konsam, Rajkumari Geetanjali Devi, Usham Rojio, RK Jhalajit Singh, Devjani Chalia, P. Milan Khangamcha]

E. Nilakanta Singh, *Manipuri Dance*, New Delhi: Omsons Publication, 1997.

Faubion Bowers, *The Dance in India*, New York: Columbia University Press, 1953.

RK Danisana, *Manipuri Dances*. New Delhi: Rajesh Publications, 2012.

Saroj N Arambam & John Parratt, *The Pleasing of the Gods: Meitei Lai-Haraoba*, New Delhi: Vikash Publishing House, 1997.

Saroj Nalini Arambam Parratt, *The Religion of Manipur*, Guwahati: Spectrum Publications, 2013.

Kh. Ratan Kumar, *Lai-Haraoba of Manipur*, Imphal: Published by Ph. Pratima Devi, 2001.

L. Bhagyachandra Singh, *The A Critical Study of the Meitei Before the Advent of Vaisnavism in Manipur*, Imphal: Published by L. Momon Devi, 1991.

Kshetrimayum ongbi Thouranisabi Devi, *Raas Makhal Amasung Nunggi Masak*, Imphal: Masana Phongjaba, 2006.

A. Chitreshwor Sharma, *Sankritan Bichar, Ahanba Saruk*, Imphal: Published by A, Sashikumar, 2010.

A. Chitreshwor Sharma, *Sankritan Bichar, Anisuba Saruk*, Imphal: Published by A, Sashikumar, 2010.

Shri Atombapu Sharma, *Meitei Kritan*, Imphal: Masana Phongjaba, 1953.

Ngariyanbam Kullachandra, *Meitei Lai-Haraoba*, Imphal: Masana Phongjaba, 1964.

Ngangbam Kumar Maibi, *Kanglei Umang Lai-Haraoba,* Imphal:
Aphongba Thambal Angou, 1988. Elam Indira, *Lai-Haraobagi Wakhallon Paring,* Imphal: Masana Phongjaba, 1977.
Elam Indira, *Lai-Haraobada Chatnaba Anoi Eeshei*, Imphal:
Masana Phongjaba, 2001. RK Achoubisana, *Pena Anoi,*
Imphal: Manipur State Pena Asheiba Loishang, 1997.

Introduction to Physics: MDC45PHY101(T)25
Credit:03
Theory: 45 Lectures

Course Objective

- To give an introduction to the fundamentals of Physics.
- To give introductory concepts on units and measurement, scalar and vectors, laws of motion, work, power and energy, electricity and magnetism, geometry and wave optics, gravity and planetary motion, wave and oscillation, and electronics.

Course learning Outcomes

- They will understand the basic concepts of units and measurements, motion, optics, electricity and magnetism, energy, waves and oscillation and the concept of electronics which are the fundamental parts of Physics and its application in everyday life.
- On successful completion of the course, students will be able to understand the preliminary idea of the concept of Physics and its phenomena in our daily lives.

Unit 1

Units And Measurement

Units of measurement, system of units, SI units, fundamental and derived units.

(2 lectures)

Scalar And Vectors

Vector notation, equality of vectors, vector addition, product of vectors, scalar product and vector product. Position and displacement vectors.

(4 lectures)

Unit 2

Laws Of Motion

Inertia, Newton's law of motion. law of conservation of linear momentum and its applications, impulse, friction and lubrication. Uniform circular motion: centripetal force, centrifugal force, torque, angular momentum, Law of conservation of angular momentum and its applications.

(6 lectures)

Unit 3

Work, Power and Energy

Work done by a force. Kinetic energy and potential energy, work-energy theorem, power.

(2 lectures)

Unit 4

Waves and oscillations:

Longitudinal and transverse waves (with examples), periodic motion. Simple harmonic motion (SHM), simple pendulum. Child on a swing, tuning fork, motion of a spring, damped and forced oscillations. **(5 Lectures)**

Unit 5

Gravity and Planetary Motion

Historical evolution of the concept of gravity: from Aristotle to Newton. gravitational forces in nature: everyday implications, the Universal Law of Gravitation, Kepler's Laws of planetary motion. Role of gravity in maintaining orbital motion, moon's journey around the earth- lunar cycle, **tides** and gravitational interactions. Satellites.

(6 Lectures)

Unit 6

Electricity and Magnetism:

Electric lines of force, electric permittivity, electric field and potential, electric flux, electrostatic shielding, Lorentz force, magnetic induction. permeability, magnetic susceptibility. brief introduction to dia-, para- and ferro-magnetic materials. electromagnetic induction, eddy current, alternating current, direct current, resistors, capacitors and inductors, electric generators, electric motor and transformer**.**

(8 lectures)

Unit 7

Geometric and Wave Optics:

Electromagnetic spectrum, dual nature of light, reflection, refraction, interference, diffraction, dispersion, scattering, structure of human eye, defects of eye (myopia, hypermetropia, presbyopia and astigmatism) and its remedy, lasers, optical fiber communication. holography, optical phenomena related to daily life (rainbow, halo, mirage, colour of sky etc.).

(8 lectures)

Unit 8

Electronics:

Diode, transistor, solar cell, IC microprocessor, concept of pixel as used in electronic displays, digital data communication (internet).

(*All qualitative only) **(4 Lectures)**

Reference Books:

1. Elements of Properties of Matter, D.S. Mathur, 2008, S. Chand and Company Limited
2. Feynman Lectures, Vol. I, R.P.Feynman, R.B.Leighton, M.Sands, 2008, Pearson Education
3. Concept of Physics (I &II), H.C Verma.
4. NCERT Physics Textbooks (Class 9,10 11 &12)
5. Principles of Optics, B.K. Mathur, 1995, Gopal Printing.
6. Optics, Ajay Ghatak, 6th ed., 2017, Tata McGraw Hill.
7. Electricity and Magnetism, D.C.Tayal, 1993, Himalaya Publishing House.
8. Electricity and Magnetism, J H Fewkes & J Yarwood, Oxford University Press, Calcutta, 1985
9. SWAYAM/NPTEL modules on basic physics

MDC-1 (Multi-disciplinary Course)

Course Title: Nationalism in India
Course Code: MDC45PSC101(T)25

Course objective: To help students understand the struggle of Indian people against colonialism, its different theoretical perspectives and dimensions. It begins with the nineteenth century Indian responses to colonial dominance in the form of reformism and its criticism and the events leading to the Partition and Independence. It tries to highlight its various conflicts and contradictions by focusing on its different dimensions: communalism, class struggle, caste and gender questions.

Course Learning Outcomes : After the Course the students will know India's freedom struggle against the colonialism and its various dimensions. The students will understand conflicts and contradictions including communalism, class struggle, caste and gender issues.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Approaches to the Study of Nationalism in India, Reformism in India	Nationalist, Imperialist, Marxist and Subaltern; 19th Century Major Social and Religious Movements in India	1
II	Nationalist Politics and Expansion of its Social Base	Phases Liberal Constitutionalists, Swadeshi and the Radicals; Gandhi and Mass Mobilization: Quit India Movement; Women's Participation	1
III	Partition and Independence	Communalism in Indian Politics, Two-Nation Theory and Negotiations over Partition	1

Reading List

1. S. Bandopadhyay, (2004) *From Plassey to Partition: A History of Modern India,* New Delhi: Orient Longman, pp. 184-191.
2. R. Thapar, (2000) 'Interpretations of Colonial History: Colonial, Nationalist, Post-colonial', in P. DeSouza, (ed.) *Contemporary India: Transitions,* New Delhi: Sage Publications, pp. 25-36.
3. A. Sen, (2007) 'The idea of Social Reform and its Critique among Hindus of Nineteenth Century India', in S. Bhattacharya, (ed.) *Development of Modern Indian Thought and the Social Sciences,* Vol. X. New Delhi: Oxford University Press.
4. S. Sarkar, (1983) *Modern India (1885-1947),* New Delhi: Macmillan,
5. R. Pradhan, (2008) *Raj to Swaraj,* New Delhi: Macmillan (Available in Hindi).

MDC-1 (3)

MDC45PSY101(T)25

General Psychology

3 Credit

(75 marks)

Unit-1: Definition of Psychology: (1 Credit=25 Marks)

Scope and Nature of Psychology, Sub-fields of Psychology, Methods of Psychology, Schools of Psychology, Attention and Perception.

Unit-2: Principles of Learning: (1 Credit=25 Marks)

Learning and forms of learning: Classical Conditioning, Operant Conditioning, Cognitive learning, Transfer of learning, Types of learning. Learning and motivation.

Unit-3: Intelligence, Motivation and Emotions: (1 Credit=25 Marks)

Theories of intelligence, measurement and determinants of Intelligence.

Approaches to understanding motivation.

Theories of emotions, Emotions, Gender and Culture.

Learning Outcome:

- The students will gain basic knowledge about the nature of psychology
- They will have understanding about the interaction between cognitive, emotion and behavioral functions
- They will gain knowledge about the components and process of their psychological functions.

Reading list:

Susan Noten (2014). Atkinson & Hilgard's Introduction to Psychology.New Delhi: Cengage Learning.

SK Mangal (2019). Psychology of Learning and Development. New Delhi:PHI Learning

Ciccarelli, S.K, White, J. N., & Ciccarelli, S. K. (2012). Psychology. Boston, Mass: Pearsonn Learning Solutions.

Morgan, C. T., King, R. A., Weisz, J.R., & Schopler, J. (1986). Introduction to Psychology, TataMc Graw Hill.

Robert A. Baron (2009), Psychology, 6th edition. India: Pearson Prentice Hall

Kalat, James W. Introduction to Psychology, 4th edition, Brooks/ Cole Printing Co.

MDC45SEA101(T)25: Introduction to Economics

Course Description:

The course is designed to equip the students with the basics of economics in brief. It covers topics ranging from microeconomics, macroeconomics, public finance, growth and development and international economics/trade, etc.

Learning Outcomes:

On successful completion of the course, students will be able to:

i) familiarize with the various concepts of economics spreading across different areas

ii) apply economic theories in day-to-day life experiences enabling them to make better and rational decisions

iii) relate the importance of economics as a discipline with other disciplines in a better way

Course Contents:

Unit I: Scarcity, Choice, Utility, Consumption, Demand and Supply

Unit II: Factors of Production, Theory of costs, Forms of Market

Unit III: Introduction to macroeconomics: objectives of macroeconomic policies, Growth and output Balance of Payment; Business cycle, Inflation; Money and prices; The general theory of Employment, Interest and Money; Monetary policy

Unit IV: Basics of international trade; Traditional Trade Theories; Monopolistic competition; Foreign exchange market: Meaning and determination of exchange rate-fixed, flexible and managed; Foreign trade & economic growth.

Unit V: Public Finance – Objective of fiscal policies, importance of fiscal policy, Instruments of fiscal policies; Budget deficit and public debt, Deficit financing

Suggested Readings:

1. Paul A. Samuelson & William D. Nordhaus, Economics, McGraw Hill, 19th edition, 2010

2. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010

3. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010

4. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009

5. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005

6. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics,
   a. Pearson Education Asia, 9th edition, 2012

BA 1st Semester
Multi-Disciplinary Course (MDC) –MDC45SOC101(T)25

Fundamentals of Social Psychology

Course Objectives-

To introduce the basic concepts of Social Psychology to expand the horizons of students understanding social behaviour. To expose students to the understanding of social issues and problems as well as dealing with proper reasons. To understand the nature and cause of individual behaviour and thought in social situations.

Course Outcomes-

Studying social psychology can enhance empathy, communication, and compassion, leading to better relationships and social interactions. It provides frameworks for understanding how groups form, function, and make decisions, as well as how individuals behave within groups. The understanding of people perceive, interpret, and remember information about themselves and others in social situations can explore how attitudes are formed, how they influence behaviour, and how they can be changed through persuasion. It learns many opportunities to understand the self as a social being.to enhance the comprehension of the social phenomena involving self and others by underscoring the role of cultural differences. The knowledge gained from social psychology can be applied to various real-world issues, including social problems, interpersonal relationships, and organizational behaviour.

Course Content-

1. Introduction to Social Psychology:
   Definition and nature of social psychology, understanding social behaviour in relation with Motivational, Learning, and Cognitive. Relationship of Social Psychology and Sociology.
2. Social Cognition and Person Perception:
   Social Cognition -- Social world, Schemas, and attribution
   Person Perception – impressions, nonverbal communication
3. Learning about the Self:
   Nature of self-awareness, self-esteem, and self-presentation. Understanding Social identity in terms of social roles and group memberships.
4. Attitudes towards social interaction:
   Attitude Formation, components, develop and change. Relationship between attitudes and social behaviour.
5. Applications of Social Psychology:
   Nature and consequences of prejudice, bias, stereotyping, violence and discrimination. Social Influence and importance of empathy, resilience, altruism, conformity and obedience.

Recommended Books-

1. Taylor, S.E.; Peplau, L.A. and Sears, D.O. (2006). Social psychology.12th ed. N.D.: Pearson.
2. Baron, R.A.; Byrne, D. (1998). Social psychology. 10th ed. N.D.: Prentice-Hall of India Pvt. Ltd.
3. Myers, D.G. (2005). Social Psychology (8th ed.). New Delhi: Tata McGraw Hill Pub. Co. Ltd.
4. Baron, R.A., Byrne, D. &Bhardwaj, G. (2010).Social Psychology (12th Ed.). New Delhi: Pearson.
5. David Myers (1999). Social Psychology.6th Ed. McGraw Hill Companies Inc.
6. Kuppuswami, B. 1980. An Introduction to Social Psychology. Bombay: Media Promoters and Publishers Pvt Ltd.
7. Kuppuswamy B. 1983. Elements of social psychology Vikas; Advent Books [Exclusive distributor], New Delhi, New York.
8. Rossenberg, M. and R.H. Turner (eds.). 1981. Social Psychology: Sociological Perspective. New York: Basic

Manipur University

Academic Level: 45 Semester: 1 Syllabus for undergraduate Statistics (Theory)

Nature of Course	Multidisciplinary course (MDC)				
Course Code	MDC45STA101(T)25				
Course Title	Introduction to Statistics I				
Course Level	Level 100				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	3	3 lectures per week (1hr. per lecture)	1 tutorial class (1hr.) per week		4hrs.

Course Objective (Summary): The course is designed to make the student understand essential insights into a data set and understand how much the values in a data set differ from each other and the central tendency etc..

Course Learning Outcomes: Upon completion of the course the learners will be able to

1.	learn various techniques used in summarization, presentation and analysis of different types of Statistical data.
2.	understand measures of central tendency, dispersion, moments, skewness and kurtosis
3.	calculate simple and rank correlation, partial and multiple correlation coefficients.
4.	understand the measures of association for 2x2 and rxs contingency tables

Detailed Syllabus Content

Unit I 1 Credit (15 classes)

Introduction: Definition and scope of Statistics, concepts of statistical population and sample. Scales of measurement -nominal, ordinal, interval and ratio. Variables and attributes, Diagrammatical Representation of Data, Summarization of Data: Frequency Distribution and Graphical Presentation.

Unit II 1 Credit (15 classes)

-Notion of Central Tendency: Average, characteristics of an ideal average.
-Arithmetic Mean (A.M): Definition, effect of change of origin and scale, combined mean of a number of groups, merits and demerits, its applications.
-Geometric Mean (G.M): Definition, merits and demerits, its applications
-Harmonic Mean (H.M): Definition, merits and demerits, its applications
-Relation between A.M., G.M., and H.M.
-Weighted Mean: Weighted A.M., G.M., and H.M.
-Mode: Definition, formula for computation (with derivation), graphical method of determination of mode, merits and demerits, its applications.
-Median: Definition, formula for computation (with derivation), graphical method of Determination of median, merits and demerits, its applications.
-Empirical relation between mean, median and mode.
-Box-plot

Unit III 1 Credit (15 classes)

-Concept of dispersion, characteristics of an ideal measure of dispersion.
-Partition Values: Quartiles, Deciles and Percentiles, their applications.
-Range: Definition, merits and demerits.
-Semi-interquartile range (Quartile deviation).
-Mean deviation: Definition, merits and demerits,
-Mean square deviation: Definition, Variance and standard deviation – definition, merits and

demerits, effect of change of origin and scale.

-Determination of variance of a combined series.

-Measures of dispersion for comparison: coefficient of range, coefficient of quartile Deviation and coefficient of mean deviation, coefficient of variation (C.V.)

Suggested Readings

1. Goon, A.M., Gupta M.K. and Dasgupta, B. (2013) Fundamentals of Statistics, Vol. 1, The World Press Pvt. Ltd. Kolkata.
2. Gupta, S.C. and Kapoor, V.K. (2019): Fundamentals of Mathematical Statistics, Sultan Chand and Sons, New Delhi.
3. Medhi, J. (1992): Statistical Methods Wiley Eastern

Additional Readings:

1. Agarwal, B. L. (2006): Basic Statistics, New Age International Publishers.
2. Freedman, D., Pisani, R. and Purves, R.: Statistics, W. W. Norton & Company.
3. Kapur, J.N. & Saxena, H.C. (2019) : Mathematical Statistics, S. Chand & Co., New Delhi
4. Mukhopadhyay, P. (2016): Mathematical Statistics, New Central Book Agency, Calcutta
5. Miller, Irwin and Miller, Marylees: John E. Freunds Mathematical Statistics with Applications, Pearson Education, Asia.

MULTI-DISCIPLINARY COURSE – 1 : MDC45ZOO101(T)25

(Introduction to Animal Diversity – 1 : non-Chordates)

Objective:

The course is aimed with the objective of providing introductory ideas of the diversity of animal life among the non-Zoology Students offering this MDC. It shall provide an insight to the learner about the existence of different life forms on the Earth, and appreciate the diversity of animal life.

Outcome:

The outcome expected on completion of Course:

- Having knowledge of habitat and structural organization of animals .
- Appreciate the diversity of non-chordates living in diverse habit and habitats.
- Critically think about the organization, complexity and characteristic features of non-chordates.
- Getting familiarized with the morphology and anatomy of representatives of various animal phyla.
- Comprehend the economic importance of non-chordates, their interaction with the environment and role in the ecosystem.

Course Content:

Theory [Credits: 3] 45 hrs/ 100 marks(70 for end exam, 30 for Internal assessment)

Unit 1: Origin of Life; Introduction to Animals 9 hrs/ 14 marks

Origin of life on Earth: Arrival of simple form from primordial chemicals Complexity of Life: Origin of metazoans; Concept of Cellularity, Body symmetry, Germ layers & Body cavities Sequence & strategies of life cycle: Concept of classification of life cycles, adaptations & relationship between ontogeny & phylogeny. Characteristics of Animalia; Difference of living animals & non-living things; Animals in Mythology and Indian knowledge systems.

Unit 2: Single Cell organisms to Platyhelminthes 9 hrs/ 14 marks

Physical characteristics, and medical importance of Protozoans; General characteristics and Economic importance of Sponges; Introductory ideas of the Water Canal systems in sponges. Introduction to Metazoa: General characteristics of Coelenterata; Regeneration in *Hydra*; Characters & importance of Jelly fishes; Corals and coral reefs; General characteristics of Platyhelminthes; Differencebetween Trematoda & Cestoda; Life cycle & medical importance of Liver fluke and common Tape worm.

Unit 3: Nemathelminthes to Annelida 9 hrs/ 14 marks

General characteristics of a Nematode; Life cycle and importance of roundworm*;* Medical importance of Nematodes specially in relation to immunocompromised Persons; General characteristics of Annelida; Life cycle of Earthworm and Leech. Earthworm as a friend of the Farmers & their rearing for sustainable use; Identification using diagrammatic sketches or Photographs with characters & Medicinal uses of Leeches.

Unit 4: Arthropoda to Onychophora 9 hrs/ 14 marks

Structural organization in different classes of Arthropods; Types, morphology, life history and economic importance of mosquito; characters & life history of Spiders, characters of Centipedes & millipedes; Social life in bees, Economic importance of Insects, Metamorphosis in Insects.

Harmful effects of Barnacles in water; General characteristics of Onychophora.

Unit 5: Mollusca to Minor Phyla 9 hrs/ 14 marks

General characteristics of Mollusca; External features & introductory ideas on the digestive system & Nervous system in *Pila* sp., Pearl formation in bivalve. General characteristics of Echinodermata; Water-vascular system, Larval forms in echinoderms. Introduction to minor phyla. General characters of some important groups of minor phyla.

Teaching and Learning Process:

Information and concepts about morphology, anatomy and physiology of non-chordates will be imparted through classroom lectures to inculcate a conceptual base among the students about the subject and through observations in nature through real animals/preserved specimens/models. Hands-on exposure would be provided to the students leading to more comprehensive learning. Blended learning using chalk-n-talk method and e-learning using presentations, animations, simple animal model systems, etc. would be used to enhance their conceptual understanding. Inquiry-based collaborative learning environment through presentations, group discussions and round tables on the various aspects of non- chordate biology would be created to ensure effective learning and understanding of the concepts. Field-based project activities have been included to create interest among the students to study and explore the biology and behavior of non-chordates inculcating research aptitude. In addition, study of animals in their natural habitat will improve the observation skills, data collection skills, critical thinking and analytical skills of students. Furthermore, museology will give them a comprehensive idea of structural features of non- chordates and the basis of classification. Curriculum-related assignments would improve the reading, writing and abstracting skills and enhance the critical thinking of the students. After completion of each unit there should be a doubt clearing session/Class in order to test whether the teaching imparted had been followed by the Students.

Assessment Methods:

Measures to be adopted for assessment are as follows.

Class Tests: Regular class tests will judge the grasp of the topics by the students.

Projects and Assignments: Individual/group projects will inculcate independent thinking as well as the team work skills among the students.

Regular Presentations: Presentations by the students on a particular topic will enhance student's learning and confidence. The presentations will be assessed based on the content, novelty, explanation and response to queries raised by peers.

***Viva-voce**: Viva-voce* is another critical component of assessment of the practical component of a course. Inquiry-based learning blended with hands-on learning will develop critical thinking and competencies among students.

Semester-end Examination: Semester-end examination and grading of students based on their performance in the exams is an indicator of student's learning throughout the semester. A comparative assessment of students through final exams, analyses comprehensive knowledge gained by each student.

Recommended Books:

Barnes, R.D. (2006). Invertebrate Zoology, VII Edition, Cengage Learning, India.

Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002). The Invertebrates: A New Synthesis. III Edition, Blackwell Science

Barrington, E.J.W. (2012). Invertebrate Structure and Functions. II Edition, EWP PublishersPechenik, J. A. (2015). Biology of the Invertebrates. VII Edition, McGraw-Hill Education

Ruppert, E.E., Fox, R.S., Barnes, R. D. (2003). Invertebrate Zoology: A Functional Evolutionary Approach. VII Edition, Cengage Learning, India

Online Tools and Web Resources:

Animal Diversity (https://swayam.gov.in/courses/5686-animal-diversity), Advances in Animal diversity Portal

ePG Pathshala (MHRD) Module 10, 18, 19 of the paper P-08 (Biology of Parasitism) https://epgp.inflibnet.ac.in/ahl.php?csrno=35