MANIPUR UNIVERSITY
CANCHIPUR: IMPHAL

OFFICE ORDER NO. /131
Dated, the 2nd September, 2026

No. MU/MDS/VAC/FYUP/MU/: In anticipation of the approval of the next Academic Council meeting, the Vice-Chancellor is pleased to approve the following courses as the pool of Multidisciplinary Courses (MDCs) for 3rd 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	Course Title(s)	Course Code(s)	To be offered/proposed by (Departments)
Natural and Physical Sciences	1. Museum and Cultural Resource Management	MDC50ANT203(T)25	Anthropology
	2. Outlines of Metabolic Pathway	MDC50BCH203(T)25	Biochemistry
	3. Applied Microbiology	MDC50BTT203(T)25	Biotechnology
	4. Natural Resource Management	MDC50BOT203(T)25	Botany
	5. Environmental Science	MDC50CHM203(T)25	Chemistry
	6. Environment And Traditional Knowledge	MDC50ENV203(T)25	Environmental Science
	7. Dairy Processing Technology	MDC50BFT203(T)25	Food Technology
	8. Disaster Management	MDC50GEG203(T) 25	Geography
	9. Geoheritage And Geotourism	MDC50GEL203(T)25	Geology
	10. Introduction to Physics	MDC50PHY203(T)25	Physics
	11. Animals, Humans, and the Environment	MDC50ZOO203(T)25	Zoology
Mathematics, Statistics, and Computer Applications	1. Digital Electronics	MDC50BCA203(T)25 MDC50CSC203(T)25	Computer Science
	2. Elementary Mathematics-II	MDC50MAT203(T)25	Mathematics
	3. Introduction to Statistics 1	MDC50STA203(T)25	Statistics
Library, Information, and Media Sciences	1. Information Literacy	MDC50LIS203(T)25	Library& Information Science
	2. Visual Communication	MDC50MCC203(T)25	Mass Communication
Commerce & Management	1. Accounting for Everyone	MDC50COM203(T)25	Commerce
	2. Project Management	MDC50BBA203(T)25	Management

Humanities and Social Sciences	1. Sports Nutrition	MDC50PES203(T)25	PESS
	2. Bengali Folk Drama and Theatre	MDC50BEN203(T) 25	Bengali
	3. Illegal Immigration	MDC50DSS203(T)25	Defence Studies
	4. Indian Economy	MDC50ECO203(T)25	Economics
	5. Mental Health and Social Media	MDC50EDN203(T)25 MDC50EDN203 (P)25	Education
	6. Film and Media Studies	MDC50ENG203(T)25	English
	7. Creative Accessories	MDC50BFD203(P)25	Fashion Designing
	8. प्रशासनिक एवं पारिभाषिक शब्दावली	MDC50HIN203(T) 25	Hindi
	9. Introduction to Indian Knowledge Systems	MDC50HIS203(T) 25	History
	10. Communication Skills in Extension Education	MDC50HSC203(T)25	Home Science
	11. International Human Rights Perspectives	MDC50HRT203(T)25	Law (Human Rights)
	12. Language, Education and Media	MDC50LIN203(T)25	Linguistics
	13. History of Modern Manipur	MDC50MAN203(T)25	Manipuri
	14. Mizo Hla Thlankhawm	MDC50MIZ203(T)25	Mizo
	15. Conflict & Conflict Resolution	MDC50PHI203(T)25	Philosophy
	16. Feminism	MDC50PSC203(T)25	Political Science
	17. Psychology of Self: Identity, Awareness and Growth	MDC50PSY203(T)25	Psychology
	18. Mental Health	MDC50BSW203(T)25	Social Work
	19. Social Demography	MDC50SOC203(T)25	Sociology
	20. Yoga for Health Promotion	MDC50YOG203(T)25	Yoga

(Prof. M. Premjit Singh)
Registrar

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

ANTHROPOLOGY

MDC50ANT203(T)25 : Museum and Cultural Resource Management (Multidisplinary)

Nature of Course	MDC				
Course Code	MDC50ANT203(T)25				
Course Title	**Museum and Cultural Resource Management**				
Course Level	Level 300				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	2	1		3
Course Audience	Semester III 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 appeared Semester II major examinations.				
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): This course introduces students to the fundamentals of museum studies with a focus on anthropology, including the history and development of museums in India, methods of collection, documentation, and display, as well as conservation and management of cultural resources.

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

1.	Explain the concept and history of museums in India.
2.	Describe the method of specimen collection and management
3.	Describe the idea of heritage and documentation and relevant methods
4.	Explain the handling techniques and conservation of cultural resources
5	Assess the role of museums in safeguarding tangible and intangible heritage.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Museum	History and Development: definitions and objectives, history of museums in India, relationship between anthropology and museum. Role of museum in contemporary society.	1
II	Collection and documentation	Collection of Cultural Material: purchase, gift, fieldwork, treasure trove, bequest, exchange, loan; Documentation: need, methods of documentation; Display: permanent exhibition, temporary exhibition.	1
III	Conservation and management of culturalresources	Conservation: Causes of decay and deterioration of museum objects, Care, Handling, Packing, Cleaning and Repairing, Security against theft, Fire and other disasters, Museum as Cultural heritage (Tangible and Intangible).	1

Suggested Readings

1. Ambrose, Timothy and Crispin Paine. 2012. Museum Basics. Third Edition. New York: Routledge.
2. Basa, Kishor K. (ed). 2010. Multiple Heritage: Role of Specialised Museums in India. Bhopal & Delhi: IGRMS & Serials Publications.
3. Basu, Paul and Wayne Modest (ed). 2015. Museum, Heritage and International Development. New York: Routledge.
4. Behera, B. K. and S.K. Mohanty. 2007. Museology and Museum Management in India. Bhubaneswar: Mayur Publications.
5. Dudley, Sandra H. (ed). 2010. Museum Materialities: Objects, Engagements, Interpretations. London: Routledge.
6. Dudley, Sandra H. (ed.). 2012. Museum Objects: Experiencing the Properties of Things. New York: Routledge.
7. Dutta, Sangeeta. 2010. Ecomuseum: Perspectives in India. Delhi: Agam Kala Prakashan.
8. French, Ylva and Sue Runyard. 2011. Marketing and Public Relations for Museums, Galleries, Cultural and Heritage Attractions. London: Routledge.
9. Gupta, S.P. and Mohit Srivastava. 2010. Modern Museum Management. New Delhi: Indraprastha Museum of Art and Archaeology & D.K. Printworld (P) Ltd.
10. Sandell, Richard and Eithne Nightingale (eds). 2012. Museums, Equality and Social Justice. London: Routledge.
11. Well, Stephen E. 2002. Making Museums Matter. Washington: Smithsonian Institution Press.

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

Course Outcomes (COs)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1:	3	2	1	1	1	2	2	1
CO2:	3	2	1	1	1	3	3	1
CO3:	3	2	1	1	1	3	3	1
CO4:	2	3	3	2	2	3	2	2
CO5:	2	3	3	3	2	3	2	3

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

BIOCHEMISTRY

MDC50BCH203(T)25: Outlines of Metabolic Pathway
(Theory)

Credit: 3 **Total Hours: 45**

Course Objectives

This course aims to provide students with a comprehensive understanding of cellular metabolism, energy production, and the roles of carbohydrates, fats, and proteins in energy balance. It also highlights the connection between metabolism, health, and disease, emphasizing the relevance of enzymes, metabolic regulation, and nutrition in human health and biotechnology.

Course Learning Outcomes

By the end of this course, students will be able to:

1	Explain the concepts of metabolism, anabolism, catabolism, and the role of ATP as the energy currency of the cell.
2	Describe cellular respiration, mitochondrial function, and the role of oxygen in energy generation.
3	Analyze carbohydrate metabolism, including glycolysis, glycogen storage, and blood glucose regulation.
4	Understand the metabolic roles of fats and proteins as energy sources, including fatty acid breakdown and ketone body formation.
5	Relate metabolic processes to human health, disease states (e.g., diabetes, obesity), and the action of drugs targeting metabolism.

Course content

Unit	Unit Name	Detailed Syllabus
I	*Introduction to Metabolism and Energy*	Meaning and importance of metabolism; anabolism and catabolism; energy flow in living systems; ATP as the energy currency of the cell.
II	*Energy Production in Cells*	Cells and mitochondria; cellular respiration (an overview); role of oxygen in energy generation; ATP formation (conceptual understanding).
III	*Carbohydrates in Energy Metabolism*	Glucose as a primary fuel; breakdown of glucose (simplified glycolysis); storage of glucose as glycogen; conversion of food into usable energy; role of blood glucose in energy balance.
IV	*Fats and Proteins as Energy Sources*	Fats as long-term energy reserves; basic idea of fatty acid breakdown; ketone bodies (when and why they are formed); proteins as supplementary energy sources.
V	*Metabolism, Health and Society*	Metabolic imbalance and disease (diabetes and obesity); role of enzymes in metabolism; drugs targeting metabolic processes; relevance of metabolism in nutrition, health and biotechnology.

Suggested Readings

1. Nelson, D. L., & Cox, M. M. *Lehninger Principles of Biochemistry*, 8th Ed, 2021.
2. Voet, D., Voet, J. G., & Pratt, C. W. *Fundamentals of Biochemistry*, 6th Ed, 2021.
3. Berg, J. M., Tymoczko, J. L., Gatto, G. J., & Stryer, L. *Biochemistry*, 9th Ed, 2021.
4. Garrett, R. H., & Grisham, C. M. *Biochemistry*, 6th Ed, 2021.
5. Murray, R. K., Bender, D. A., Botham, K. M., Kennelly, P. J., Rodwell, V. W., & Weil, P. A. *Harper's Illustrated Biochemistry*, 32nd Ed, 2021.
6. McKee, T. C., & McKee, J. R. *Essentials of Biochemistry*, 2nd Ed, 2020.

Additional Readings

1. Devlin, T. M. *Textbook of Biochemistry with Clinical Correlations*, 9th Ed, 2020.
2. Matthews, C. K., van Holde, K. E., & Ahern, K. G. *Biochemistry*, 5th Ed, 2018.

(Note: Refer to the latest editions of the prescribed books.)

Course Teaching-Learning Process

1. Interactive lectures explaining metabolic pathways and energy flow.
2. Concept mapping of anabolic and catabolic pathways.
3. Case studies on metabolic diseases like diabetes and obesity.
4. Demonstrations of ATP measurement techniques in cells.
5. Group discussions on the role of carbohydrates, fats, and proteins in energy metabolism.
6. Video-based animations illustrating glycolysis, Krebs cycle, and oxidative phosphorylation.
7. Problem-solving sessions on metabolic regulation and blood glucose control.
8. Workshops on interpreting clinical data related to metabolic disorders.
9. Assignments analyzing enzyme roles in metabolism and drug targets.
10. Student presentations on the impact of nutrition and lifestyle on metabolism.
11. Integration of recent research articles to discuss applications in biotechnology and medicine.

Assessment Methods

1. Written quizzes and assignments on key metabolic concepts.
2. Midterm and final examinations.
3. Case study analysis of metabolic disorders.
4. Group presentations on specific metabolic pathways or health impacts.
5. Participation in class discussions, workshops, and problem-solving sessions.

BIOTECHNOLOGY
Applied Microbiology
(Theory)

Nature of Course	**MULTIDISCIPLINARY COURSE -3 (MDC-3)**				
Course Code	**MDC50BTT203(T)25**				
Course Title	**APPLIED MICROBIOLOGY**				
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 impart knowledge of the various aspects of microbiology and the application of microorganisms in our environment, and the role of microorganisms in industrial, agricultural and food processing industry, This course also aims to teach students the basics of immunity and human diseases caused by microbes.

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

CO1	Know the major types of microorganisms, microbial nutrition and growth
CO2	Understand the role of microorganisms in food processing and environmental bioremediation, and apply this knowledge for sustainable living
CO3	Understand the basics of how the immune system operates, the concept of vaccination, and enumerate some common infectious diseases caused by pathogenic microrganisms, symptoms and prevention.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Fundamentals of Microbiology and Microbial Diversity	Microbes: definition and types (bacteria, viruses, fungi, protozoa, algae). Morphology and cell structure of major groups of microorganisms. Microbial nutrition and growth: Nutritional requirements and nutritional types of micro-organisms, Bacterial growth curve.	1
II	Microbes in Food, Agriculture and Environment	Microbes in food processing: fermentation in bread, yogurt, pickles; role of starter cultures. Probiotics products, Food Safety. Principles of food preservation, food preservation techniques and food spoilage. Biofertilizers and biopesticides: nitrogen-fixing bacteria (Rhizobium), phosphate-solubilizing bacteria. Waste treatment and environmental microbiology: Treatment of sewage (Primary, Secondary and Tertiary treatments), composting, Role of microbes in decomposition and bioremediation).	1
III	Microbes in Medical and Industrial Applications	Infection and immunity: Common infectious diseases (Tuberculosis, Typhoid, Dengue, Chicken pox) symptoms and prevention. Simple immune response : Concept on antibodies and vaccination. Production of antibiotics (penicillin), enzymes (Amylase) and organic acid (citric acid).	1

Suggested Readings:

1. Pearson.M J Pelczer (1998) Microbiology 5th Edn. Tata McGrow Hill Education Pvt. Ltd. 2. Strainer, R, (1987) General Microbiology.
2. Palgrave Macmillan.Edward Alchano, 2002. Introduction to Microbiology. Jones and Bartlett hearing.
3. R P Singh, (2007) General Microbiology. Kalyani Publishers.
4. J Heritage, E G V Evans, R A Killington, (2008) Introductory Microbiology. Cambridge University press P. date.
5. Pelczar, jr. M.J.E.C.S.Chan and Krieg, N.R. 1996. Microbiology. Mc Graw Hill Publishers,
6. Willey JM, Sherwood LM, and Woolverton CJ. (2008). Prescott, Harley and Klein's Microbiology. 8th edition. McGraw Hill Higher Education.
7. Food Microbiology by William C Frazier. Tata Mgraw Hill
8. Kathleen park Talaro (2017). Foundations in Microbiology. 10th Edition, McGraw Hill. Science

Course Teaching-Learning Process

- 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	PL011	PLO12
CO1	√	√	√	√						√		√
CO2	√	√	√	√	√					√		√
CO3	√	√	√		√	√	√				√	

Assessment Methods

- Oral and written examinations
- Seminar and presentations,
- Interactive sessions.

BOTANY

Natural Resource Management (Theory)

(***offered to candidates of other disciplines***)

Nature of Course	MDC				
Course code	MDC50BOT203(T)25				
Course Title	Natural Resource Management (Theory)				
Course level	Level 200				
Credit details	Total credit	Lecture/week	Tutorial/week	Practical/Week	Total Hours/Week
	3	2	1	0	3
Course Audience	Major Students enrolled in the FYUGP in Botany				
Pre requisite (if any)	Basic understanding of Plant Biology at the FYUP First Year with Botany as Major/Minor course.				
Skill training required (if any)					
Pre-requisite Course required (if any)	Successful completion all the credits of FYUP Botany (Major/Minor) at First year.				
Faculty Eligibility and specialization (if any)	Master's Degree in Botany or Life Sciences with specialization in Botany or Plant Sciences; Faculty with PhD and/or NET Qualifications will be preferred.				

Course outcome:

1. Distinguish between renewable and non-renewable resources

2. Analyse threats to natural and biological resources of NE India

3. Examine management strategies for sustainable utilization of resources

Learning outcomes

1. Differentiate natural and biological resources of NE India

2. Identify the threats and issues related to the natural resources

3. Execute conservation and management strategies for natural resources

Detailed Syllabus Content of Natural Resource Management (Theory)

Credit:3 **Total hours: 45**

UNIT-I: Natural resources: **07 hours**

Definition and types. Natural resources of NE India. Renewable and non-renewable sources of energy.

UNIT-II: Sustainable utilization of land and water resources: **15 hours**

Soil degradation and management; water resources (Freshwater, marine, estuarine) wetlands; Threats and management strategies and their management.

UNIT-III: Biodiversity: **08 hours**

Definition, types, significance, threats, management strategies, CBD, Bioprospecting

UNIT IV: **15 hours**

Contemporary practices in resource management: EIA, GIS, Participatory Resource Appraisal, Ecological Footprint with emphasis on carbon footprint, Resource Accounting; Waste management. National and international efforts in resource management and conservation.

Suggested readings:

1. De L.C. and Singh D.R. (2017). Natural Resources in North East Region of India, International Journal of Agricultural Science and Research (IJASR) Vol 7, Issue 5,Page 51-66.

2. Santra S.C. (2013). Environmental Science, New Central Book Agency, Kolkata

3. Singh, J. S., Singh, S.P. and Gupta, S. (2006). Ecology, Environment and Resource Conservation. Anamaya Publications, New Delhi

4. Vasudevan, N. (2006). Essentials of Environmental Science. Narosa Publishing House, New Delhi.

CHEMISTRY

ENVIRONMENTAL SCIENCE : MDC50CHM203(T)25

L	T	P	Cr
2	1	0	3

(30 Lectures of 60 mins each)

After completion of the course, the learner can be able to understand:

1. Composition of atmosphere
2. Biogeochemical cycles
3. Hydrological cycle
4. Water quality parameters
5. Atmospheric chemical phenomenon and environmental pollution
6. Water pollution, parameters of water pollution, treatment of polluted water

UNIT-1: Environment (5 Hours)

Composition of atmosphere, temperature variation of earth atmospheric system (temperature vs. altitude curve), biogeochemical cycles of C,N,P,S and O system.

UNIT-2: Hydrosphere: (8 Hours)

Hydrological cycle, aquatic pollution and water quality parameters – Dissolve oxygen, biochemical oxygen demand, chemical oxygen demand, Analytical methods for the determination fluoride, chromium and arsenic, residual chlorine and chlorine demand, purification and treatment of municipal water and waste water.

UNIT-3: Atmosphere (7 Hours)

Chemical composition of atmosphere – particle, ions, and radicals in their formation, chemical and photochemical reactions in atmosphere, smog formation, oxides of N, C, S, and O and their effect, pollution by chemicals, CFC, Green House Effect, acid rain, air pollution and control.

UNIT-4: Aquatic chemistry (10 Hours)

Water and its necessities, various water quality parameters (DO, BOD, COD, conductivity, pH, alkalinity, hardness) and its determination, Industrial, municipal water treatment processes, Waste water treatment procedure (primary, secondary and tertiary), Solid waste treatment. Soil pollution and Noise pollution.

Recommended Books/References:

1. De. A.K. *Environmental Chemistry*, Wiley Eastern Ltd, 1990.
2. Miller T.G.Jr., *Environmental Science*, Wadsworth publishing House, Meerut Odum.E.P., 1971.
3. Odum, E.P. (1971) *Fundamentals of Ecology*, Third Edition, W.B.

Saunders Co., Philadelphia
4. Sharma and Kaur, *Environmental Chemistry*, Krishna publishers, 2016.
5. S.M. Khopker, *Environmental Pollution, Monitoring and control*, New Age International,2007.
6. G. S. Sodhi, *Fundamental Concepts of Environmental Chemistry* (Third Edition) Narosa (2009).

ENVIRONMENTAL SCIENCE

MDC50ENV203(T)25: ENVIRONMENT AND TRADITIONAL KNOWLEDGE

Credit: 03
Contact hours: 45 h

Nature of the Course	**MDC**				
Course Code	**MDC50ENV203(T)25**				
Course Title	**ENVIRONMENT AND TRADITIONAL KNOWLEDGE**				
Course Level	**Level 200**				
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 Environmental Science				
Proposed by (for Non-Core Course)					
Skill Training Required (if any)					
Pre-requisite Course required	10+2 in Science				
Faculty Eligibility & Specialization	MSc Degree in Environmental Science with a PhD or NET qualification				

Course Objective (Summary): The course aims at imparting basic principles of Traditional Knowledge Systems connecting society and nature. The course focuses on introduction to Indian Knowledge System and different traditional knowledge of ethnic tribes of Manipur, its use in environmental conservation. The aim will be to introduce the students to important concepts from the diverse intellectual traditions of India and aware its implications in conservation and protection of biodiversity.

Course Learning Outcomes:

1	To introduce the concept and domains of indigenous knowledge systems
2	To expose the students to the diverse ways of living and knowing its values and worth.
3	To explain the relevance of indigenous knowledge and environmental conservation.
4	To familiarize the students with the indigenous knowledge of tribes in India

Detailed Syllabus Content:

Unit	Unit Name	Detailed Syllabus	CH
I	Introduction to Traditional knowledge Systems	Traditional Indigenous Knowledge – Definitions, Scope and Importance, Characteristics, and Examples; kinds of traditional knowledge; Indigenous Knowledge (IK) and characteristics.	11
II	Protection of Traditional Knowledge	Traditional knowledge of tribes in northeast India; examples of traditional knowledge of different ethnic tribes of Manipur. Indigenous and traditional concept of health and well being, disease and Illness and cure.	11
III	Biodiversity and Traditional knowledge	Biodiversity-conservation and culture, Traditional knowledge and its use in the conservation of environment; sacred groves, traditional water conservation methods, homegardens, wildlife protection, pest management.	11
IV	Indigenous Knowledge and Intellectual Property Rights	Impact of social change on the traditional knowledge systems, conflicts between indigenous knowledge and scientific knowledge. Policies and measures for the protection of traditional knowledge, Intellectual Property Rights, Biopiracy.	12

Suggested Readings:

1. Amit Jha. Traditional Knowledge System in India, 2009.
2. Ellen, Roy, Peter Parkes and Allan Bicker (eds), Indigenous Environmental Knowledge and its Transformations: Critical Anthropological Perspectives. Harwood Academic Publishers, Amsterdam, 2000.Misra, Kamal K. (ed.), Traditional Knowledge in Contemporary Societies: Challenges and Opportunities, Indira Gandhi
3. Rashtriya Manav Sangrahalaya, Bhopal & Pratibha Prakashan, Delhi, 2007.

Anthropological Perspectives. Harwood Academic Publishers, Amsterdam, 2000.
Misra, Kamal K. (ed.), Traditional Knowledge in Contemporary Societies: Challenges and Opportunities, Indira GandhiRashtriya Manav Sangrahalaya, Bhopal & Pratibha Prakashan, Delhi, 2007.

4. Bicker, Alan, Paul Sillitoe and Johan Pottier (eds), Development and Local Knowledge: New approaches to issues in natural resources management, conservation and agriculture, London: Routledge, 2004
5. Sillitoe, Paul, Alan Bicker and Johan Pottier (eds), Participating in Development: Approaches to indigenous knowledge, Routledge, London, 2002.

FOOD TECHNOLOGY

(Theory)

Nature of Course	MDC (Multidisciplinary Course)-3				
Course Code	MDC50BFT203(T)25				
Course Title	Dairy Processing Technology				
Course Level	Level 200				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	2	2			2
Course Audience	Semester 3 (Students from other departments)				
Proposed by (for Non Core courses)	Department of Food Technology/ Board of Studies……, Manipur University, etc.				
Pre Requisites (if any)	1. Basic knowledge of science at the 10+2 level. 2. Nil				
Skill Training Required (if any)	1. Nil 2. Nil				
Pre-Requisite Course Required (if any)	1. Nil 2.Nil				
Faculty Eligibility and Specialization (if any)	Post Graduate degree in Food Technology / Dairy Technology / Food Science				

Course Objective (Summary): This course explores the foundational principles of milk processing and preservation. It is designed to provide students with a clear understanding of milk handling, safety parameters, and the simple processing technologies used to create value-added dairy products.

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

1.	Understand the basic composition, nutritional value, and physicochemical properties of milk.
2.	Explain the standard preliminary processing and preservation techniques used in the dairy industry, such as pasteurization and homogenization.
3.	Describe the manufacturing steps for common value-added dairy products like butter, cheese, and yogurt.
4.	Appreciate the importance of hygiene and post-harvest technology in extending the shelf life of dairy products.
5	Apply theoretical concepts of milk processing to real-world dairy industry scenarios

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.

Unit	Unit Name	Detailed Syllabus	Credit
I	**Introduction and Basic Milk Processing**	Definition, composition, and nutritional importance of milk. Factors affecting the composition of milk. Post-harvest handling: Chilling and storage. Preliminary processing operations: Filtration, clarification, and standardization. Principles and types of pasteurization (LTLT, HTST, UHT). Principles of homogenization.	1
II	**Value Addition of Dairy Products**	Introduction to value-added dairy processing. Processing of fat-rich dairy products: Cream, Butter, and Ghee. Processing of fermented dairy products: Dahi and Yoghurt. Processing of coagulated dairy products: Paneer and Chhana. Basics of Ice cream processing.	1

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

Suggested Readings:

1. De, S. (2001). *Outlines of Dairy Technology*. Oxford University Press.
2. Fellows, P. (2016). *Food Processing Technology: Principles and Practice* (4th ed.). Woodhead Publishing.

Additional Readings:

1. Aneja, R. P., Mathur, B. N., Chandan, R. C., & Banerjee, A. K. (2002). *Technology of Indian Milk Products*. Dairy India Yearbook.
2. Srilakshmi, B. (2018). *Food Science*. New Age International Publisher.

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
- Multiple choice questions
- Presentations through Posters and power point

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

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CO1	✔					
CO2	✔	✔				
CO3		✔	✔		✔	
CO4				✔		✔

Assessment Methods

- Oral and written examinations
- Closed-book and open-book tests,
- Problem-solving exercises,
- Practical assignments and laboratory reports,
- Observation of practical skills,
- Individual and group project reports,
- Seminar and presentations,
- Interactive sessions.

Manipur University
Academic Level 200 3rd Semester
Syllabus for B.Sc. Food Technology (Practical)

Nature of Course	MDC(Multidisciplinary Course)-3				
Course Code	MDC50BFT203(P)25				
Course Title	Dairy Processing Technology (Practical)				
Course Level	Level 200				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	1			1	1
Course Audience	Semester 3 (Students from other departments)				
Associated Theory Courses (Topics)	1. Introduction and Basic Milk Processing 2. Value Addition of Dairy Products 3. Nil				
Skill Training Required (if any)	1. Basic laboratory safety 2. Safe handling of glassware and heating mantles				
Pre-Requisite Course Required (if any)	1.Nil 2.Nil				
Faculty Eligibility and Specialization (if any)	Post Graduate degree in Food Technology / Dairy Technology / Food Science				

Course Description (Summary): This course offers hands-on technical knowledge and training for testing the basic quality parameters of milk and transforming raw milk into common value-added dairy products.

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

1.	Identify and handle various glassware and basic equipment used in milk testing and processing.
2.	Perform standard platform tests to determine the freshness and quality of raw milk.
3.	Estimate basic composition parameters like fat and specific gravity in milk.
4.	Prepare value-added dairy products like paneer and dahi using hygienic practices.
5.	Document practical procedures and interpret testing results accurately

Detailed Syllabus Content

(Provide only number of sessions per practical activity)

Sl. No.	List of Practical	No. of Sessions
1.	Identification of various machinery and equipment used in a dairy processing laboratory.	1
2.	Sampling of milk and performing basic platform tests (Clot-on-Boiling test, Alcohol test).	2
3.	Determination of specific gravity of milk using a lactometer.	2
4.	Determination of fat content in milk (Gerber method).	2
5	Preparation of fat-rich dairy products: Separation of cream, and preparation of Butter and Ghee.	2
6	Preparation of coagulated product: Paneer / Chhana.	2
7	Preparation of fermented product: Dahi / Yoghurt.	2
8	Preparation of Ice cream.	

Suggested Readings

1. De, S. (2001). *Outlines of Dairy Technology*. Oxford University Press.
2. FSSAI. (2015). *Manual of Methods of Analysis of Foods: Milk and Milk Products*.

Additional Readings:

1. Sethi, M. (2019). *Food Science Experiments and Applications*. CBS Publishers & Distributors.
2. Aneja, R. P., Mathur, B. N., Chandan, R. C., & Banerjee, A. K. (2002). *Technology of Indian Milk Products*. Dairy India Yearbook.

List of Essential Major Equipment

1. Gerber Centrifuge and Lactometer.
2. Laboratory Incubator and Water Bath.
3. Cream separator and Butter churner.
4. Deep Freezer / Ice cream maker (for ice cream freezing and hardening).

Major Laboratory Stores/Consumables Required

1. Raw milk, standard chemical reagents (Sulphuric acid, Amyl alcohol).
2. Coagulants (Citric acid or sour whey for Paneer/Chhana) and starter cultures (for Dahi/Yoghurt).
3. Heavy cream (if not separating manually), sugar, stabilizers (e.g., gelatin or sodium alginate), emulsifiers, and food-grade flavourings/colours for ice cream.
4. Glassware (Pipettes, butyrometers, beakers, measuring cylinders, and test tubes).

Essential Software (Licensed/Open-Source)

1. Nil.
2. Nil.

Student Activities

1. **Demonstration Notes/ Observation Notebooks:** Routine maintenance of a practical notebook documenting the objective, materials, procedures, observations, and results of each laboratory session.
2. **Practical Records / Project Reports:** Submission of a comprehensive final practical record book containing completed experiments, flowcharts for product preparation, and relevant quality parameter calculations.

GEOGRAPHY

(Theory)

Nature of Course	MDC				
Course Code	MDC50GEG203(T) 25				
Course Title	Disaster Management				
Course Level					
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	3	2	1	--	3
Course Audience	Students pursuing Third Semester other than geography				
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 Objective:

1. Understanding the nature of disaster.
2. Understanding the concept and management of disaster.
3. Understanding preparedness and management of disasters in India.

Course Learning Outcome:

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

1.	Know the concept of disasters.
2.	Understand the idea of Disaster Management.
3.	Overview different types of Disasters.
4.	Understand do's and don't during disasters.
5.	Understand the disaster management framework in India.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit/Hour
I	Nature of Disaster	Definition, concept, risk, vulnerability, and classification of disaster; Disaster and hazard.	9 hrs
II	Concept of Disaster Management	Meaning, concept, methods and approaches of disaster management.	9 hrs
III	Disaster Management	Natural Disaster – flood, landslide, hailstorm, earthquake, and cyclone disaster with reference to India. Man Made Disasters.	9 hrs
IV	Disaster Preparedness	Mitigation, response and preparedness of disaster; Do's and Don'ts during and post-disaster.	9 hrs
V	Disaster Management in India	Laws, NDMA, SDMA, NIDM and NDRF; Indigenous knowledge and community-based disaster management.	9 hrs

Suggested Readings

1. Arulsamy, Dr S. and J. Jeyadevi (2016): Disaster Management, Neelkamal.
2. Government of India (2011): Disaster Management in India, Ministry of Home Affairs, New Delhi.
3. Pandey. Dr. Mrinalini (2014): Disaster Management, Wiley India, New Delhi.
4. Pandey, Rajendra Kumar (2020): Disaster Management in India, Sage Publications India Pvt. Ltd., New Delhi.
5. Srivastava, A.K. (2021): Text Book of Disaster Management, Scientific Publishers, New Delhi.
6. Singh, Savindra and Singh, Jeetendra (2013): Disaster Management, Pravalika Publications, Allahabad.
7. Subramanian, R. (2018): Disaster Management, Vikas Publishing House, New Delhi.
8. Sylphey, M.M. and Safeer, M.M. (2017): Introduction to Disaster Management, Prentice Hall of India, New Delhi.
9. Vaidyanathan, S. (2020): Introduction to Disaster Management – Natural Disaster and Man Made Hazards, CBS Publishers, New Delhi.

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

Additional Readings

1. Kumar. P. (2021): Disaster Management, Oak Bridge Publications, New Delhi.
2. Sharma, S.C.(2025): Disaster Management, Khanna Book Publishing Co (P) Ltd., New Delhi.
3. Vashistha, Venod Kumar and Das, Dipak Kumar (2018): Disaster Management, Nath Ram Publications, Varanasi

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	1
CO2	3	2	1	2	2	1
CO3	3	2	1	2	2	1
CO4	3	2	1	2	2	1
CO5	3	2	2	2	2	1

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

GEOLOGY

Nature of Course: **MDC - 3 (THEORY)**
Course Code: **MDC50GEL203(T)25**
Course Title: GEOHERITAGE AND GEOTOURISM

Course Objectives:
To develop scientific understanding of geoheritage, geoconservation and geotourism through analytical study of geological heritage resources, conservation strategies and their scientific, educational, cultural, socio-economic and sustainable development significance.

Course Learning Outcomes:
After studying this course, students will be able to:

1. Identify and classify major geoheritage resources and geosites.
2. Interpret geological landscapes in terms of origin, evolution and heritage significance.
3. Evaluate geo-conservation strategies and sustainable geo-tourism practices.
4. Analyse the scientific, educational, cultural and socio-economic significance of geoheritage.
5. Assess the geoheritage potential of India and North-East India for sustainable regional development.

Detailed Syllabus Content
(03 Credits)

Unit	Unit Name	Detailed Syllabus
I	Fundamentals of Geoheritage and Geotourism	Introduction, concepts, definitions and scope of geoheritage and geotuorism. Evolution of geoconservation, relationships among geology, landscape and culture. Principles of sustainable geotourism. Scientific, educational and societal significance of geoheritage. UNESCO Global Geoparks –Concept and objectives.
II	Geoheritage Resources and Scientific Significance	Geological monuments and heritage sites. Rocks, minerals, fossils, landforms and tectonic features as geoheritage resources. Stratigraphic, palaeontological and geomorphological heritage. Criteria for identification, evaluation and classification of geosites. National and international geoheritage inventories. Geological heritage of India and North-East India.
III	Geoconservation and Geoheritage Management	Concepts, principles and methods of geoconservation. Threats to geoheritage sites. Legal frameworks and conservation policies. Inventorying, mapping and documentation of geosites. Geoheritage interpretation and site management. Roles of government agencies, scientific organisations and local communities in geoconservation
IV	Geotourism Development and Interpretation	Principles and components of geotourism. Geotourism planning and infrastructure. Interpretation techniques, geotrails, geoguides, and visitor management. Educational, socio-cultural and economic significance of geotourism. Geotourism and ecotourism: A comparative perspective. Case studies of successful geotourism destinations in India and abroad.
V	Geoheritage of India with Special Reference to North -East India	Major geoheritage sites of India: Fossil parks, volcanic provinces, caves, waterfalls, and structural and tectonic landscapes. Geoheritage potential of North-East India. Geoheritage of the Indo-Myanmar Orogenic Belt and Eastern Himalayas. Challenges and future prospects of geotourism in North-East India. Role of geoheritage in sustainable regional development.

Books Recommended

1. Newsome, D. and Dowling, R.K. (2018) Geoheritage and Geotourism: Principles, Practices and Management, Goodfellow Publishers, Oxford
2. Tripathi, S.C., Pant, N.C. and Rajora, S. (2005) Geoconservation and Geotourism Potential of India, Springer Nature, Switzerland
3. Singh, R.B., Wei, D. and Anand, S. (2020) Global Geographical Heritage, Geoparks and Geotourism: Geoconservation and Development, Springer Nature, Singapore
4. Krishnanand (2026) Exploring Geodiversity in India Trans-Himalayas: A Geographical Perspective, Springer Nature, Switzerland
5. Wadhawan, S. (2021) Geoheritage and Potential Geotourism in Geoparks–Indian Perspective, Spinger Nature, Switzerland
6. Kale, V.S. (2014) Landscape and Landforms of India, Springer India
7. Geological Survey of India (2022) Geoheritage Sites and National Geologic Monuments of India, G.S.I., Kolkata.

Course Learning Outcome (CLOs) and Programme Learning Outcomes (PLOs) Linkage Matrix

CLO/PLO	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
CLO1	S	M	S	L	N	M	M	N
CLO2	S	S	S	M	M	M	L	N
CLO3	M	S	M	S	M	S	S	M
CLO4	M	S	M	S	S	S	M	M
CLO5	M	S	M	S	S	S	S	S

 # S = Strong Linkage, M = Moderate Linkage, L = Low Linkage, N = No Linkage

Introduction To Physics: MDC50PHY203(T)25
Credit:03
Theory: 45 Lectures

PHYSICS

- 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

Mechanics

Physical quantities, Units of measurement, SI units, Scalars and Vectors, Speed and Velocity, Linear momentum and Acceleration. Laws of motion, friction and lubrication, uniform circular motion. Work, energy, power; principle of conservation of energy. Newton's law of gravitation, acceleration due to gravity. **(15 Lectures)**

UNIT 2

Heat and Thermodynamics

Concept of heat and temperature, specific heat, Latent heat. Laws of thermodynamics (zeroth, first and second), Heat transfer: conduction, convection and radiation. **(5 Lectures)**

UNIT 3

Waves and Optics

Introduction to waves and its characteristics, Longitudinal and transverse waves, Simple harmonic motion, simple pendulum. Dual nature of light, Reflection, refraction and total internal reflection (simple examples), Interference, diffraction, and polarization (Simple idea only) Principle of optical fibers and LASER **(8 Lectures)**

UNIT 4

Electricity and Magnetism

Electric charge, current, Coulomb's law. Electric field Intensity and Electric potential (simple idea). Capacitance and Capacitors. Ohm's law, resistances and their combination. Kirchoff's laws. Alternating currents, Electromagnetic induction, Faraday's laws and Lenz law. Applications to transformer, generator and motor (no derivation). **(10 Lectures)**

UNIT 5

Electronic and modern Physics

Semiconductors, diodes and transistors, Solar cell, digital mobile data communication. Radioactivity, half life and mean life.Nuclear fission and fusion. (Elementary idea).

(7 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

ZOOLOGY

MDC50ZOO203(T)25 Title: Animals, Humans, and the Environment (Theory)

Course Objective

The course aims to provide students with a basic understanding of animal life, animal diversity, behavior, ecology, and the relationship between animals, humans, and the environment. It seeks to develop awareness of the effects of human activities on wildlife and ecosystems, while introducing students to wildlife conservation, sustainable coexistence, and the importance of animal health in human well-being.

Course Outcomes

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

- Understand the basic foundations of animal life and describe the general organization of animal cells, energy generation, animal diversity, and the importance of classification.
- Explain animal behavior and communication by recognizing different forms of communication, social organization, division of labour, and migration in animals such as bees, ants, birds, and fish.
- Understand fundamental ecological concepts, including biotic and abiotic components of ecosystems, food chains, food webs, and ecological pyramids.
- Assess the impact of human activities on wildlife and explain how deforestation, urbanization, industrial farming, pollution, poaching, illegal wildlife trade, and overfishing affect animals and their habitats.
- Develop awareness of wildlife conservation and sustainable coexistence through knowledge of the Red Data Book, protected areas, wildlife sanctuaries, national parks, zoological reserves, and conservation strategies.
- Recognize the relationship between animal health and human health and gain basic awareness of important animal/vector-borne diseases such as malaria, dengue, typhus, and rabies.

Course content:

Theory [Credit:3] 45 hours/100 marks (70 for end exams, 30 marks for internal) Unit 1:

Foundations of Animal Life and the Human Connection (9 Hours)

A simple, non-technical look at how animal cells are structured, boundary themselves, and generate energy; Introduction to the massive diversity of animal life and need for classification; Human-animal interactions; domestication of livestock, pets, and beasts of burden.

Unit 2: Animal Behavior and Social Systems (9 Hours)/20 marks

Animal Communication**:** using sounds, visual displays, scents, and dances (Bee, Ants, Birds); The division of labour in Bee; Understanding animal migration in Fish and Birds.

Unit 3: Basics of Ecology (9 Hours) 20 marks

Basic components of an ecosystem, Living and non-living; food chains and food web and ecological pyramids.

Unit 4: The Impact of Human Activities on Wildlife (9 Hours) 20 marks

Consequences of deforestation, urbanization, and industrial farming on animal habitats; Impact of pollution to wild life; The ecological threats posed by illegal wildlife trade, poaching, and commercial overfishing.

Unit 5: Conservation and Sustainable Coexistence (9 Hours) 20 marks

Strategies for wildlife conservation, Red Data Book; understanding protected parks, sanctuaries, and zoological reserves; animal diseases and human health (e.g. Malaria, Dengue, Typhus, Rabies).

Teaching-Learning Process

The teaching-learning process will be student-centered, interactive, and activity-oriented, combining classroom lectures with PowerPoint presentations, audiovisual materials, discussions, question–answer sessions, case studies, and examples from everyday life. Simple diagrams, photographs, videos, and demonstrations will be used to explain animal diversity, behavior, ecology, human–animal interactions, and conservation. Students will be encouraged to participate in group discussions, presentations, projects, assignments, quizzes, and field-based or nature-observation activities to develop critical thinking and environmental awareness. Relevant case studies on wildlife conservation, pollution, human–wildlife conflict, animal diseases, and sustainable coexistence will be incorporated to connect theoretical concepts with real-world situations. Continuous assessment through class tests, assignments, presentations, participation, and project work, along with the semester-end examination, will be used to monitor and evaluate student learning.

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.
- **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

- Hickman, C. P., Jr., Keen, S. L., Eisenhour, D. J., Larson, A., & I'Anson, H. (2019). *Integrated principles of zoology* (18th ed.). McGraw-Hill Education. G
- Begon, M., Townsend, C. R., & Harper, J. L. (2006). *Ecology: From individuals to ecosystems* (4th ed.). Blackwell Publishing.
- Dugatkin, L. A. (2020). *Principles of animal behavior* (4th ed.). University of Chicago Press.
- Molles, M. C., Jr., & Sher, A. A. (2019). *Ecology: Concepts and applications* (9th ed.). McGraw-Hill Education.
- Primack, R. B. (2014). *Essentials of conservation biology* (6th ed.). Sinauer Associates.
- Miller, G. T., Spoolman, S., & Andrews-Brown, D. M. (2025). *Environmental science* (17th ed.). Cengage
- Alcock, J. (2013). *Animal behavior: An evolutionary approach* (10th ed.). Sinauer Associates.

Bachelor of Computer Applications: BCA (Theory)

Nature of Course	MDC – 3				
Course Code	MDC50BCA203(T)25				
Course Title	DIGITAL ELECTRONICS				
Course Level	Level 200				
Credit Details	Total Credit	Lecture / Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3	-	-	45 (L)/SEMESTER
Course Audience	BCA students pursuing Computer Applications as their Major discipline, and other stream students studying Digital Electronics as a Multidisciplinary Course.				
Pre Requisites	1. Basic knowledge of computer fundamentals. 2. Basic understanding of binary and decimal number systems. 3. Elementary mathematical and logical reasoning skills.				
Skill Training Required	1. Logical and analytical problem-solving skills. 2. Basic numerical and binary-system manipulation. 3. Ability to interpret simple logic diagrams.				
Pre-Requisite Course Required	Computer Fundamentals				
Faculty Eligibility and Specialization	Ph.D. / M.Tech. / M.Sc. / MCA in Electronics, Computer Science, Information Technology, Computer Applications or a related discipline with appropriate specialisation in Digital Electronics, Computer Organisation or Digital Systems.				

Course Objective

This course introduces the fundamental concepts of digital electronics and digital logic systems with particular emphasis on their applications in computer science and computer systems. It develops students' understanding of number systems, Boolean algebra, logic gates, combinational and sequential circuits, digital data representation, memory elements and basic digital system design. The course provides the foundational knowledge required to understand the hardware organisation and operation of modern computer systems.

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

CO1: Explain the fundamental concepts of digital systems, number systems, digital codes and binary arithmetic.
CO2: Apply Boolean algebra and logic gates to simplify and analyse digital logic expressions.
CO3: Design and analyse basic combinational logic circuits used in digital computing systems.
CO4: Explain and analyse sequential logic circuits, flip-flops, registers and counters.
CO5: Relate digital electronic circuits and memory elements to the organisation and operation of computer systems.

Unit	Unit Name	Detailed Syllabus	Credit
I	**Digital Systems and Number Systems**	Introduction to digital and analogue systems; characteristics of digital systems; applications of digital electronics in computer systems; binary, decimal, octal and hexadecimal number systems; number-system conversions; signed and unsigned binary numbers; 1's and 2's complement; binary arithmetic; subtraction using complements; overflow; fixed-point representation; BCD, Gray code and ASCII; error detection concepts; parity and basic error-detection methods.	**0.6**
II	**Boolean Algebra and Logic Gates**	Boolean variables and Boolean functions; basic Boolean operations; logic gates—AND, OR, NOT, NAND, NOR, XOR and XNOR; universal gates; Boolean algebra laws and theorems; De Morgan's theorems; Boolean expression simplification; canonical and standard forms; minterms and maxterms; Sum of Products (SOP) and Product of Sums (POS); Karnaugh maps for two, three and four variables; simplification of Boolean functions; implementation using universal gates.	**0.6**
III	**Combinational Logic Circuits**	Introduction to combinational circuits; half adder and full adder; half subtractor and full subtractor; parallel binary adders; comparators; multiplexers and demultiplexers; encoders and decoders; priority encoder; code converters; parity generator and checker; arithmetic circuits; design and analysis of combinational circuits; applications of combinational logic in computer systems.	**0.6**
IV	**Sequential Logic Circuits**	Introduction to sequential circuits; difference between combinational and sequential logic; latches and flip-flops; SR, JK, D and T flip-flops; characteristic and excitation tables; race-around condition; master-slave flip-flop; triggering methods; registers; shift registers; serial and parallel data transfer; counters; asynchronous and synchronous counters; up/down counters; applications of registers and counters in digital computing systems.	**0.6**
V	**Memory and Digital Systems in Computing**	Semiconductor memory concepts; RAM and ROM; SRAM and DRAM; memory organisation and capacity; programmable ROM concepts; cache memory—basic concepts; memory addressing; read and write operations; register and memory hierarchy; basic digital system design; control and data paths; arithmetic and logic unit as a digital system; digital logic in CPU organisation; introduction to programmable logic devices; overview of digital logic applications in modern computers and embedded systems.	**0.6**
	Total		**3**

Suggested Readings

1. M. Morris Mano and Michael D. Ciletti – *Digital Design*, Pearson.
2. Thomas L. Floyd – *Digital Fundamentals*, Pearson.
3. R. P. Jain – *Modern Digital Electronics*, McGraw-Hill.
4. Ronald J. Tocci, Neal S. Widmer and Gregory L. Moss – *Digital Systems: Principles and Applications*, Pearson.
5. Stephen Brown and Zvonko Vranesic – *Fundamentals of Digital Logic with Verilog Design*, McGraw-Hill.

Additional Readings

1. John F. Wakerly – *Digital Design: Principles and Practices*, Pearson.
2. Charles H. Roth and Larry L. Kinney – *Fundamentals of Logic Design*, Cengage Learning.
3. Donald D. Givone – *Digital Principles and Design*, McGraw-Hill.
4. David Harris and Sarah Harris – *Digital Design and Computer Architecture*, Morgan Kaufmann.
5. M. Morris Mano – *Computer System Architecture*, Pearson.

Course Teaching-Learning Process

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

1. Class Lectures and Tutorials – Explanation of digital systems, Boolean algebra, logic gates, combinational and sequential circuits.
2. Logic Problem-Solving Exercises – Practice involving number-system conversion, Boolean simplification, Karnaugh maps and digital circuit analysis.
3. Circuit Diagram Analysis – Interpretation and analysis of logic-gate diagrams, adders, multiplexers, flip-flops, registers and counters.
4. Case Studies and Group Discussions – Discussion of the application of digital logic and memory technologies in computer systems and embedded computing.
5. Assignments and Quizzes – Regular conceptual, numerical and circuit-design exercises supported by short quizzes.

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	1	1	2	0	1
CO2	3	3	3	2	1	1	3	0	1
CO3	3	3	3	3	1	2	3	0	1
CO4	3	3	3	2	1	2	3	1	1
CO5	3	3	3	3	2	2	3	1	2

Assessment Methods

1. Written Examinations – Internal and end-semester examinations covering digital-system concepts, Boolean algebra and circuit analysis.
2. Numerical Problem-Solving Exercises – Problems involving number systems, Boolean expressions, Karnaugh maps and digital circuit design.
3. Assignments and Tutorial Work – Regular analytical and circuit-design assignments.
4. Quizzes and Class Tests – Short assessments covering logic gates, Boolean laws, digital circuits and memory concepts.
5. Circuit Analysis and Case Studies – Analysis of digital circuits and their applications in computer systems.

Bachelor of Computer Science (Theory)

Nature of Course	MDC 3				
Course Code	MDC50CSC203(T)25				
Course Title	DIGITAL ELECTRONICS				
Course Level	Level 200				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	3	-	-	45 (L)/SEMESTER
Course Audience	Students from non-computer science disciplines who require foundational knowledge of Digital Electronics for academic, personal, and professional applications.				
Pre Requisites	1. Basic knowledge of computer fundamentals. 2. Basic understanding of binary and decimal number systems. 3. Elementary mathematical and logical reasoning skills.				
Skill Training Required	1. Logical and analytical problem-solving skills. 2. Basic numerical and binary-system manipulation. 3. Ability to interpret simple logic diagrams.				
Pre-Requisite Course Required	Computer Fundamentals				
Faculty Eligibility and Specialization	Ph.D. / M.Tech. / M.Sc. / MCA in Electronics, Computer Science, Information Technology, Computer Applications or a related discipline with appropriate specialisation in Digital Electronics, Computer Organisation or Digital Systems.				

Course Objective

This course introduces the fundamental concepts of digital electronics and digital logic systems with particular emphasis on their applications in computer science and computer systems. It develops students' understanding of number systems, Boolean algebra, logic gates, combinational and sequential circuits, digital data representation, memory elements and basic digital system design. The course provides the foundational knowledge required to understand the hardware organisation and operation of modern computer systems.

Course Learning Outcomes

CO1: Explain the fundamental concepts of digital systems, number systems, digital codes and binary arithmetic. CO2: Apply Boolean algebra and logic gates to simplify and analyse digital logic expressions.
CO3: Design and analyse basic combinational logic circuits used in digital computing systems.
CO4: Explain and analyse sequential logic circuits, flip-flops, registers and counters.
CO5: Relate digital electronic circuits and memory elements to the organisation and operation of computer systems.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Digital Systems and Number Systems	Introduction to digital and analogue systems; characteristics of digital systems; applications of digital electronics in computer systems; binary, decimal, octal and hexadecimal number systems; number-system conversions; signed and unsigned binary numbers; 1's and 2's complement; binary arithmetic; subtraction using complements; overflow; fixed-point representation; BCD, Gray code and ASCII; error detection concepts; parity and basic error-detection methods.	0.6
II	Boolean Algebra and Logic Gates	Boolean variables and Boolean functions; basic Boolean operations; logic gates—AND, OR, NOT, NAND, NOR, XOR and XNOR; universal gates; Boolean algebra laws and theorems; De Morgan's theorems; Boolean expression simplification; canonical and standard forms; minterms and maxterms; Sum of Products (SOP) and Product of Sums (POS); Karnaugh maps for two, three and four variables; simplification of Boolean functions; implementation using universal gates.	0.6
III	Combinational Logic Circuits	Introduction to combinational circuits; half adder and full adder; half subtractor and full subtractor; parallel binary adders; comparators; multiplexers and demultiplexers; encoders and decoders; priority encoder; code converters; parity generator and checker; arithmetic circuits; design and analysis of combinational circuits; applications of combinational logic in computer systems.	0.6
IV	Sequential Logic Circuits	Introduction to sequential circuits; difference between combinational and sequential logic; latches and flip-flops; SR, JK, D and T flip-flops; characteristic and excitation tables; race-around condition; master-slave flip-flop; triggering methods; registers; shift registers; serial and parallel data transfer; counters; asynchronous and synchronous counters; up/down counters; applications of registers and counters in digital computing systems.	0.6
V	Memory and Digital Systems in Computing	Semiconductor memory concepts; RAM and ROM; SRAM and DRAM; memory organisation and capacity; programmable ROM concepts; cache memory—basic concepts; memory addressing; read and write operations; register and memory hierarchy; basic digital system design; control and data paths; arithmetic and logic unit as a digital system; digital logic in CPU organisation; introduction to programmable logic devices; overview of digital logic applications in modern computers and embedded systems.	0.6
	Total		**3**

Suggested Readings

1. M. Morris Mano and Michael D. Ciletti – Digital Design, Pearson.
2. Thomas L. Floyd – Digital Fundamentals, Pearson.
3. R. P. Jain – Modern Digital Electronics, McGraw-Hill.
4. Ronald J. Tocci, Neal S. Widmer and Gregory L. Moss – Digital Systems: Principles and Applications, Pearson.
5. Stephen Brown and Zvonko Vranesic – Fundamentals of Digital Logic with Verilog Design, McGraw-Hill.

Additional Readings

1. John F. Wakerly – Digital Design: Principles and Practices, Pearson.
2. Charles H. Roth and Larry L. Kinney – Fundamentals of Logic Design, Cengage Learning.
3. Donald D. Givone – Digital Principles and Design, McGraw-Hill.
4. David Harris and Sarah Harris – Digital Design and Computer Architecture, Morgan Kaufmann.
5. M. Morris Mano – Computer System Architecture, Pearson.

Course Teaching-Learning Process

1. Class Lectures and Tutorials – Explanation of digital systems, Boolean algebra, logic gates, combinational and sequential circuits.
2. Logic Problem-Solving Exercises – Practice involving number-system conversion, Boolean simplification, Karnaugh maps and digital circuit analysis.
3. Circuit Diagram Analysis – Interpretation and analysis of logic-gate diagrams, adders, multiplexers, flip-flops, registers and counters.
4. Case Studies and Group Discussions – Discussion of the application of digital logic and memory technologies in computer systems and embedded computing.
5. Assignments and Quizzes – Regular conceptual, numerical and circuit-design exercises supported by short quizzes.

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	1	1	2	0	1
CO2	3	3	3	2	1	1	3	0	1
CO3	3	3	3	3	1	2	3	0	1
CO4	3	3	3	2	1	2	3	1	1
CO5	3	3	3	3	2	2	3	1	2

Assessment Methods

1. Written Examinations – Internal and end-semester examinations covering digital-system concepts, Boolean algebra and circuit analysis.
2. Numerical Problem-Solving Exercises – Problems involving number systems,

Boolean expressions, Karnaugh maps and digital circuit design.

3. Assignments and Tutorial Work – Regular analytical and circuit-design assignments.
4. Quizzes and Class Tests – Short assessments covering logic gates, Boolean laws, digital circuits and memory concepts.
5. Circuit Analysis and Case Studies – Analysis of digital circuits and their applications in computer systems.

MATHEMATICS
MDC50MAT203(T)25 : Elementary Mathematics-II

Nature of Course	**MDC**			
Course Code	**MDC50MAT203(T)25**			
Course Title	**Elementary Mathematics-II**			
Course level	**100**			
Credit details	**Total Credit**	**Lecture/Week**	**Tutorial/week**	**Total Hour/Week**
	3	**3**	**0**	**3**
Course Audience	**BA/BSc Third Semester**			
Proposed by	**Board of Under-Graduate of Department of Mathematics, Manipur University**			
Pre Requisites	**Concept of numbers, counting, equations, geometry**			
Pre Requisite Course Required	**10 Mathematics**			
Faculty Eligibility and Specialization	**Not Required**			

Course Objectives: The course is to impart concepts frequently used in Mathematics at a primary level and also required in other disciplines to the students from any background. It will make them aware about many natural situations in a precise form of mathematical tools.

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

1.	Gain sufficient knowledge of basics of mathematical tools used daily
2.	Get the idea of shortest distance, different geometrical objects in two and three dimensions
3.	Understand many physical phenomena by modeling using the methods of LPP
4.	Analyze the information available in the surroundings with statistical tools

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	L	T	P	Total
I	Binomial theorem, Sequence, Series	Permutation, Combinations, Pascal triangle, Binomial theorem of for positive integral index, general term, Middle term; Sequences and Series, Arithmetic Progression (AP), Arithmetic means (AM's), Sum of n terms, Geometric Progression (GP) , Sum of n terms of a G P, Geometric mean (GM), Sum to n terms of special series	9	-	-	9
II	Straight lines	Slope of a line, Condition of parallelism, Condition of perpendicularity, Collinearity of three points, Various forms of equation of a line, Distance of a point from a line	9	-	-	9
III	Conic Sections and three dimensional geometry	Conic Sections; Sections of a cone, Circle, Parabola, Hyperbola, Ellipse, Three demensional geometry; Coordinate axes and Coordinate planes, Distance between two points, Section formula, position vector	9	-	-	9

IV	Matrices and Mathematical Modelling	Matrix, Types of matrix, Operations on matrices, Symmetric and Skew Symmetric matrices, Determinants, Minors and Cofactors, Adjoint and Inverse of a matrix, Application of Determinants and matrices to solve system of linear equations, Principles of mathematical modeling, Model formulation using matrices, linear programming problem and mathematical formulation, solution of LPP graphically	9	-	-	9
V	Statistics and Probability	Measures of Dispersion, Range, Mean Deviation, Variance and Standard Deviation, Analysis of frequency Distribution, Probabilty; Random experiments, Event, Axiomatic Approach to probability, Conditional probability and its properties, Multiplication theorem on conditional probability, Independent events	9	-	-	9

Suggested readings:

NCERT Mathematics Text Book for Standard XI, XII Additional Readings:

B S Vatssa, Discrete Mathematics, 3rd Edition Vishwa Prakashan

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

Linkage between POs and COs

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1		√	√	√					
CO2		√							
CO3				√			√		
CO4		√				√			

Assessment methods

- Oral and written examination
- Closed book and open book tests
- Problem solving exercises
- Seminar and presentations
- Interactive sessions

STATISTICS

Nature of Course	Multidisciplinary course (MDC)				
Course Code	MDC50STA203(T)25				
Course Title	Introduction to Statistics 1				
Course Level	Level 200				
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.

LIBRARY & INFORMATION SCIENCE

MDC 50 LIS 203 (T) 25: INFORMATION LITERACY

Course Learning Objectives: To make the learners understand information literacy. To familiar them with types and usage of information literacy. To appraise them with models and the System of Information Literacy.

Unit I: Understanding Information Literacy

- Meaning, Definition, Concepts, Need, and Objectives.
- Basic Meaning and Concept of an Information Literate Person:
- Importance of information literacy
- Characteristics of an Information Literate Person

Unit II: Types and Usage of Information Literacy

- Areas of Information Literacy
- Computer, digital, Media Literacy, etc.
- Concept, Meaning, Definition & Uses
- Information Literacy for Students
- Library Literacy: Types of libraries and source types.

Unit III: Models of Information Literacy

- Concepts, Meaning, Purpose, and Objectives
- Use of Information Literacy Models
- Models of Information Literacy in Library context: information literacy

Recommended Readings List

1. Alewine, M.C. & Canada, M. Introduction to Information Literacy for Students. United States, Wiley-Blackwell,2017.
2. Bilawar, P.B. Essentials of Information Literacy & E-Information Literacy for Information Seekers. New Delhi, Ess Ess Publications, 2018.
3. Eisenberg, Michael B., Lowe Cassia, and Spitzer Karthic, L. (2021). Information Literacy: Essential Skills for the Information Age. London: Libraries Un.
4. Mishra, R. Information Literacy: Essential Skills for the Information Seekers in the Digital Age. New Delhi, Kaveri Books, 2018.
5. Ragains, P. & Wood, M.S. The New Information Literacy Instruction: Best Practices. United States. Rowman & Littlefield, 2019.
6. Shafack, R. Information Literacy Education & Role of Libraries. Chennai, Notion Press, 2020.
7. Welsho, Teresa S. and Wright, Melisson S. (2010) Information Literacy in the digital age: An evidence-based approach., New Delhi, Chandos Publishing.

Course Learning Outcomes: After completing this course, the student will understand the concept of information literacy, types & usage of information literacy, the model of information literacy, and the information literacy system. They will also be able to identify and assess the information needs of specific library users.

MASS COMMUNICATION
Visual Communication

Nature of Course	**MDC-3**				
Course Code	MDC50MCC203(T)25				
Course Title	**Visual Communication**				
Course Level	Level 200				
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:
This course introduces students to the fundamental concepts and principles of visual communication. It examines how images function as systems of communication and meaning through the study of visual elements and theories. The course develops students' ability to critically analyse and interpret visual messages across diverse media and social contexts.

Course Learning Outcomes:

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

1.	Understand the fundamental concepts and principles of visual communication.
2.	Analyse visual messages using key theories and design principles.
3.	Interpret the meaning of images across diverse media and social contexts.
4.	Evaluate the effectiveness of visual communication in different media platforms.
5.	Apply visual communication concepts to critically assess contemporary visual content.

Mark Distribution:
Total: 100 Marks
End Semester: 70 Marks
Pass Mark for End Semester: 28 Marks
Internal Assessment: 30 Marks
Pass Mark for Internal Assessment: 12 Marks

Detailed Syllabus

Unit	Unit Name	Detailed Syllabus	Contact Hours
I	**Foundations of Visual Communication**	Concept, nature and scope of Visual Communication; Visual Communication as a process; Visual literacy: Sense and Perception of images.	9
II	**Visual Perception**	Human Visual Perception; Information Processing; Gestalt Principles and its application in Visual Communication; Constructivism and Cognitive Approaches; Perception and meaning-making.	9

III	**Visual Language**	Visual Elements and Composition; Colour, Typography, Layout and Design; Visual Hierarchy; Semiotics and Signs; Analysing Visuals: Photographs, Illustrations, Advertisements, Films and Digital media.	9
IV	**Visual Culture**	Ideology, Propaganda and Persuasion; Rhetoric of Images; Images and Representation Stereotypes, Identity and Ethics in Visual Communication.	9
V	**Visual Narratives**	Visual Narratives and Storytelling; Infographics and Data Visualisation; Branding and Visual Identity; Social Media and Visual Communication; Conversion of verbal messages into visual forms and Interpretation of Visual Messages.	9
Total			**45**

Suggested Readings

1. Arnheim, R. (1969). Visual thinking. University of California Press.
2. Arnheim, R. (1974). Art and visual perception: A psychology of the creative eye (Rev. ed.). University of California Press.
3. Barry, A. M. (1997). Visual intelligence: Perception, image, and manipulation in visual communication. State University of New York Press.
4. Berger, J. (1972). Ways of seeing. Penguin Books.
5. Kress, G., & van Leeuwen, T. (2021). Reading images: The grammar of visual design (3rd ed.). Routledge.
6. Mitchell, W. J. T. (1995). Picture theory: Essays on verbal and visual representation. University of Chicago Press.
7. Smith, K. L., Moriarty, S., Barbatsis, G., & Kenney, K. (Eds.). (2005). Handbook of visual communication: Theory, methods, and media. Lawrence Erlbaum Associates.
8. Stocchetti, M., & Kukkonen, K. (2011). Images in use: Towards the critical analysis of visual communication. John Benjamins

COMMERCE

Syllabus for MDC -3: Accounting for Everyone (Theory)

Nature of Course	MDC - 3				
Course Code	MDC50COM203(T)25				
Course Tittle	Accounting for Everyone				
Course Level	-				
Credit Details	Total Credit	Lecture/Week	Tutorial/Week	Practical/Week	Total Hours/Week
	3	2	1		3
Course Audience	Students of Non-Commerce Disciplines				
Faculty Eligibility and Specialization (if any)	Commerce Faculty				

Course Objectives:

To develop practical knowledge and skills for recording simple financial transactions, preparing simple financial statements, interpreting basic financial information and developing money management skills.

Course Learning Outcomes:

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

1. Explain the basic principles and terminology of accounting.
2. Record simple business transactions using basic accounting procedures.
3. Prepare simple Cash Book, Income and Expenditure Statement, and basic financial statements.
4. Interpret financial information to support personal budgeting and small business decisions.
5. Demonstrate financial literacy and apply accounting knowledge in everyday situations.

Course Content:

Unit 1: Accounting for Everyday Life **20 Marks**

Meaning of Accounting; Importance of Accounting; Accounting in Daily Life; Users of Accounting Information; Types of Accounts; Assets, Liabilities and Capital; Income and

Expenditure; Receipts and Payments; Basics of Personal Finance; Financial Literacy and Responsible Money Management.

Concept of Business Transaction; Source Documents; Basic Accounting Equation; Concept of Debit and Credit; Simple Journal Entries; Posting to Ledger; Trial Balance.

Meaning and Importance of Cash Book; Single Column Cash Book; Cash and Bank Column Cash Book; Petty Cash Book; Concept of Digital Payments; UPI, Debit Cards and Online Banking; Personal Budget Preparation.

Meaning of Financial Statements; Receipts and Payments Account; Income and Expenditure Account; Trading Account; Profit and Loss Account; Balance Sheet.

Unit V: Accounting for Smart Living **20 Marks**

Concepts of Savings and Investments; Banking Services; Basic Awareness of Taxes; Accounting in Entrepreneurship; Idea of Accounting Software – Vyapar App; Career Opportunities in Accounting and Finance.

Suggested Readings:

1. Grewal, T. S. (2023). *Financial accounting* (Revised ed.). Sultan Chand & Sons.
2. Gupta, R. L., & Radhaswamy, M. (2022). *Financial accounting*. Sultan Chand & Sons.
3. Jain, S. P., & Narang, K. L. (2022). *Financial accounting*. Kalyani Publishers.
4. Maheshwari, S. N., & Maheshwari, S. K. (2023). *Financial accounting* (7th ed.). Vikas Publishing House.
5. Shukla, M. C., Grewal, T. S., & Gupta, S. C. (2022). *Advanced accounts* (Vol. 1). S. Chand Publishing.
6. Arora, M. N. (2022). *Accounting for management*. Himalaya Publishing House.
7. Pillai, R. S. N., & Bagavathi. (2022). *Fundamentals of accounting*. S. Chand Publishing.
8. Sehgal, A., & Sehgal, D. (2021). *Fundamentals of financial accounting*. Taxmann Publications.
9. Tulsian, P. C. (2022). *Financial accounting*. McGraw Hill Education (India).
10. Lal, J. (2021). *Financial accounting*. Taxmann Publications.

Paper Title: Project Management
Paper Code: MDC50BBA203(T)25
Contact Hours: Minimum 45
Maximum Marks: 100
End Semester Exam.: 70
Internal Assessment: 30
Credit: 3

Course Outcomes (CO)/Learning Outcomes
On successful completion of this course, the learner will be able to

CO1	Understand a holistic, integrative view of Project Management including roles and responsibilities of a project manager and project life cycle
CO2	Provide a suitable framework for gaining insight in the process of beginning a project, project selection methods and different project planning tools
CO3	Highlight the role of project implementation starting from project execution to project cost control
CO4	Sensitize about the complexities of project management especially in a rural based project
CO5	Adapt projects in response to issues that arise internally and externally
CO6	Manage the scope, cost and timing of closing a project

Course Contents
Unit - 1 (.75 credits): Projects in Contemporary Organizations
Introduction to Project Management, Meaning of a project, Project vs. operations, Roles and Responsibilities of Project Manager, Benefits of project management, Project lifecycle.

Unit - 2 (.75 credit): Project Initiation (Screening and Selection Techniques)
Beginning a project, Project Selection, Defining criteria, Project selection methods, Scope Definition, Project Charter development, Work break down structures, Project resources and scheduling, building a project schedule. Project Planning Tools (Bar charts, Logical Frame work approach, CPM, and PERT)

Unit - 3 (.75 credits): Implementing a Project
Project Execution, Monitoring through Information Systems, Project control, scope creep, Capital Cost Estimating, Monitoring Techniques and time control System, Project Cost Control and Time cost Trade-off, Project Procurement and Materials Management, Pre-Feasibility Study, Feasibility Studies, Project Break-even point.

Unit - 4 (.75 credit): Monitoring and closing a Project
Project Monitoring Process, Project Close-out, Steps for Closing the Project, Project Termination, Project Follow-up, Project auditing, Case Studies as required.

Suggested Readings:

1. *Glen B Alleman, performance based Project Management*
2. *Jack R. Meredith, Samuel J. Mantel, Jr., Project Management, A Managerial Approach.*
3. *Bennett, F. Lawrence. 1996. The management of engineering. New York: Wiley.*
4. *Cleland, David. 1998. Field guide to project management. New York: Wiley.*
5. *Cleland, D.I. and Kerzner, H. 1985. A project management dictionary of terms. New York: Van Nostrand Reinhold.*
6. *Culp, G., & Smith, A. 1992. Managing people (including yourself) for project success. New York: Van Nostrand Reinhold.*
7. *Devaux, Stephen. 1999. Total project control: A manager's guide to integrated project planning,*

measuring, and tracking. New York: Wiley.
8.*Eisner, H. 1997. Essentials of project management and systems engineering management. New York: Wiley.*
9.*Fleming, Quentin &Hoppelman, Joel. 1996. Earned value project management. Project Management Institute.*
10.*Frame, J. D. 1994. The new project management. San Francisco: Jossey-Bass.*
11.*Frame, J. D. 1995. Managing projects in organizations. San Francisco: Jossey-Bass*
Goldratt, Eliyahu. 1997. Critical chain. North River Press

PHYSICAL EDUCATION & SPORTS SCIENCE

Nature of Course	**Multi-Disciplinary Course (MDC) - 3**
Course Code	**MDC-3: MDC50PES203(T)25**
Course Title	**Sports Nutrition**
Course Level	**Level 200**
Credits	**3**

Learning Outcomes

1. To understand the nutrition and sports nutrition.
2. To acknowledge the importance of different nutrients.
3. To understand the exercise and weight management.
4. Students will understand the planning of balance diet for athletes.

Course Contents

Unit-I: Introduction to Sports Nutrition

1.1 Meaning and Definition of Nutrition and Sports Nutrition
1.2 Basic Nutrition guidelines
1.3 Role of nutrition in sports
1.4 Factor to consider for developing nutritional plan

Unit-II: Nutrients-Ingestion to energy metabolism

2.1 Macro and micro nutrients
2.2 Carbohydrates energy sources for exercise
2.3 Protein energy sources for exercise
2.4 Fat energy sources for exercise

Unit-III: Vitamins and minerals

3.1 Meaning and definition of vitamins and minerals
3.2 Types and functions of vitamins
3.3 Types and functions of minerals
3.4 Water, dehydration and importance of water for exercise.

Unit-IV: Weight Management and Nutrition

4.1 Meaning and concept of weight management
4.2 Exercise prescription and weight management
4.3 Concept of BMI (Body Mass Index), Obesity and its hazard
4.4 Daily caloric requirement and expenditure.

Suggested Readings

1. Bessesen, D. H. (2008). Update on obesity. J ClinEndocrinolMetab.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).
3. Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a meta-analysis. Am J Obstet Gynecol, 197(3).
4. DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. N Engl J Med,356(21). Dixon, J.B., O'Brien, P.E., Playfair, J. (n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. JAMA. 299(3).
5. Bucher, Charles A. "Administration of Health and Physical Education Programme".
6. Moss and et. At. "Health Education" (National Education Association of U.T.A.)

BENGALI

MDC50BEN203(T)25: Bengali Folk Drama and Theatre (Credit 3, Marks 100)

Learning Outcomes:

1. Students will be able to define Bengali folk drama and explain its distinctive characteristics.
2. Students will be able to identify major forms and performance traditions such as Kotokota, Alcap, Gambhira and Ghata.
3. Students will be able to distinguish group acting and solo acting within folk-performance traditions.
4. Students will be able to understand the tradition of Bengali Jatra Pala and its relationship with theatre and street drama.
5. Students will be able to appreciate folk drama as an important expression of Bengali popular culture.

UNIT-I: Folk Drama: Definition, Characteristics, Group Acting, Solo Acting, Kotokota (Contact Hours: 15)

UNIT-II: Folk Drama: Alcap, Gombhipe, Ghata (Contact Hours: 15)

UNIT-III: Tradition of Bengali Jatra Pala: Theatre Play and Street Drama (Contact Hours: 15)

Reference Books:

1. Bharater Lokonatya: Dhruba Das, Protivas, Kolkata
2. Bharater Lokonatya: Usha Prasanna Mukhopadhyay, Shashadhar Prakashan, Kolkata
3. Goubondo Sanskriti: Harekrishna Mukhopadhyay, Pustak Biponi

DEFENCE STUDIES

(MDC50DSS203(T)25)

ILLEGAL IMMIGRATION

Learning Outcomes - After undergoing this course, a student will be in a position to –

- Clearly understand what illegal immigration is and what are types of Immigration.
- Various reasons for Illegal Immigration and impacts of Illegal Immigration;
- How to solve the problem of Illegal Immigration.

CONTENTS

UNIT 1. Fundamentals of Illegal Immigration

a. Illegal Immigration - An Overview
b. Theories related to Immigration
c. Types of Immigration

UNIT 2. Reasons for Illegal Immigration

a. Economic Factors
b. Political Factors
c. Environmental Factors

UNIT 3. Impacts of Illegal Immigration

a. Demographic Impact
b. Environmental Impact
c. Disturbance to law and order

UNIT 4. Case Studies

a. Illegal Immigration from Bangladesh
b. Illegal Immigration from Myanmar

UNIT 5. Comprehensive Solution

a. Detection, Verification, and Repatriation
b. Fencing of Borders
c. Strengthening Border Surveillance

SUGGESTED READINGS

a. Deniz Yetkin Aker, Z. Banu Dalaman, M. Gökay Özerim. (2021) Fundamentals of International Migration. Transnational Press, London
b. Timothy J. Hatton, Jeffrey G. Williamson. (2003) What Fundamentals Drive World Migration? United Nations University, World Institute for Development Economics Research.
c. Caroline B. Brettell, James F. Hollifield. (2014) Migration Theory: Talking Across Disciplines. Taylor & Francis, London.
d. B.B. Kumar. (2006) Illegal Migration from Bangladesh. Astha Bharati, Delhi.
e. Sibopada De. (2005) Illegal Migrations and the North-East: A Study of Migrants from Bangladesh. Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata.
f. Amy Alexander. (2009) The Chin People of Burma: Unsafe in Burma, Unprotected in India, Human Rights Watch.

ECONOMICS

MDC50ECO203(T)25: Indian Economy

Course Description

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points.

Course learning outcome

1. The students will try to understand the development path of India since independence as paradigm shifts and turning points in the growth path of India.
2. The very important topic of growth and distribution will also be taught.
3. The students will also learn about the change in the structure of institutions responsible for planning and growth of the country.
4. The various aspects of economy of North eastern region of India including main economic activities of the region, natural resources will also be taught in this course.

Course Outline

1: Economic Development – Concepts

Concept of Developed and Developing Economies

Characteristics of a developing economy – basic features of Indian economy at the time of independence, Economic development since independence

2: Population and Economic Development

Demographic trends of India –Concept of Demographic Dividend - Occupational Structure - Population policy, Employment in organised and unorganised sectors.

3: Growth and Distribution and Poverty in India

Poverty, inequality, employment – organised and unorganised, unemployment and policy interventions relating to poverty, inequality and unemployment.

1. **Economic Planning and Policy Framework in India**

Evolution and objectives of economic planning in India;
Plans Issues in Indian Planning – Objectives and critical evaluation of each plan,
Centre-State relationship, Niti Aayog and Planning Commission.

5: Economy of North-Eastern Region:

Basic Features: Trends of state GDP and Sector-Wise contribution, Occupational Pattern; Natural Resources: Land, Water and Forest Resources; Agriculture: Cropping Pattern; Industry: Importance, conditions, Small-Scale Industries, Role of NEC; Tourism: importance, potential and challenges; Act East Policy and North East India.

Readings:

1. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.

2. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.
3. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.
4. S.L. Shetty, 2007, —India ‘s Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, editors, *Institutions and Markets in India’s Development.*
5. Himanshu, 2010, —Towards New Poverty Lines for India, *Economic and Political Weekly*, January.
6. Jean Dreze and Angus Deaton, 2009, —Food and Nutrition in India: Facts and Intepretations, *Economic and Political Weekly*, February.
7. Himanshu. 2011, —Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.
8. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, *Economic and Political Weekly*, September.
9. Geeta G. Kingdon, 2007, —The Progress of School Education in India, *Oxford Review of Economic Policy.*
10. J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India,*International Journal of Educational Development.*
11. T. Dyson, 2008, —India‘s Demographic Transition and its Consequences for Development in Uma Kapila, editor, *Indian Economy Since Independence*, 19th edition, Academic Foundation.
12. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
13. K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in
14. India, *Economic and Political Weekly*, June.
15. Reetika Khera, 2011, —India‘s Public Distribution System: Utilisation and Impact
16. *Journal of Development Studies*.
17. Aniruddha Krishna and Devendra Bajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic and Political Weekly*, September.
18. Kaushik Basu and A. Maertens, eds, 2013, *Oxford Companion to Economics*, Oxford University Press.

EDUCATION

MDC – III: Mental Health and Social Media (Theory and Practical)

Nature of Course	Multi-Disciplinary Course – III				
Course Code	MDC50EDN203(T)26 and MDC50EDN203(P)26				
Course Title	**MENTAL HEALTH AND SOCIAL MEDIA (THEORY & PRACTICAL)**				
Course Level	Level 200				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours
	3	2	-	1	30 (L)+30(P) hrs
Course Audience	This course examines the relationship between mental health and the use of social media in contemporary society. It explores psychological, social, and educational dimensions of digital engagement, focusing on both the benefits and risks associated with social media platforms. The course also emphasizes responsible digital behaviour, mental well-being, ethical use of technology, and practical strategies for educators and learners to promote healthy digital habits in the undergraduate college environment				
Proposed by	**Department of Education, School of Education, Manipur University**				
Associated Theory Courses	1. **Social Comparison Theory**: Individuals evaluate their abilities, achievements, and social status by comparing themselves with others. On social media platforms, users frequently compare their lives, appearance, and achievements with curated posts of others. This comparison can influence self-esteem, body image, anxiety, and depression among youth and students. 2. **Cognitive Behavioral Theory**: Psychological distress is influenced by negative thought patterns and beliefs that shape emotions and behaviour. Social media content can trigger negative automatic thoughts such as inadequacy, fear of missing out, or rejection. Understanding cognitive distortions helps learners develop healthy thinking patterns and manage emotional responses to online interactions				
Faculty Eligibility and Specialization (if any)	Master's Degree in Education				

LO1: **Explain the fundamental concepts of mental health and psychological well-being** and describe the role of social media and digital environments in shaping contemporary social interactions and communication.

LO2: **Analyze the psychological and behavioral impacts of social media use on mental health**, including issues such as anxiety, depression, loneliness, stress, FOMO, cyberbullying, and the effects of excessive screen time.

LO3: **Examine the influence of social media on identity formation and youth development**, including online self-presentation, peer influence, body image perceptions, and the role of digital influencers.

LO4: **Evaluate the educational potential of social media platforms** for collaborative learning, academic engagement, and the development of supportive digital learning communities while maintaining mental well-being.

LO5: **Apply principles of digital well-being and responsible social media use** by demonstrating strategies for healthy digital habits, ethical online behavior, privacy protection, and balanced technology use in educational and social contexts.

UNIT I: FOUNDATIONS OF MENTAL HEALTH IN THE DIGITAL AGE

- Concept and meaning of mental health and psychological well-being
- Dimensions of mental health: emotional, cognitive, social, and behavioural well-being
- Digital society and the emergence of online communities
- Concept of social media: definition, types, and characteristics
- Patterns of social media usage among youth and students
- Positive contributions of social media to communication, learning, and social connection

UNIT II: IMPACT OF SOCIAL MEDIA ON MENTAL HEALTH

- Psychological theories explaining media influence (Social comparison theory, Cognitive-behavioral perspective)
- Social media and emotional well-being
- Issues related to anxiety, depression, loneliness, and stress
- Fear of Missing Out (FOMO) and online validation seeking
- Cyberbullying and digital harassment
- Effects of excessive screen time on sleep, attention, and self-esteem

UNIT III: SOCIAL MEDIA, IDENTITY, AND YOUTH DEVELOPMENT

- Identity formation in the digital age
- Online self-presentation and digital identity
- Peer influence and online communities
- Social media and body image concerns
- Influence of influencers and online trends
- Social media and academic behavior

UNIT IV: SOCIAL MEDIA FOR LEARNING AND EDUCATIONAL WELL-BEING

- Educational uses of social media platforms
- Social media as collaborative learning tools
- Digital communities for academic support
- Balancing educational benefits with mental well-being
- Digital well-being strategies for learners
- Role of teachers and institutions in guiding responsible use

UNIT V: DIGITAL WELL-BEING AND RESPONSIBLE SOCIAL MEDIA USE

- Concept of digital well-being
- Strategies for maintaining healthy digital habits
- Time management and screen-time regulation
- Digital detox and mindful technology use
- Online safety, privacy, and ethical behavior
- Role of families, schools, and communities in promoting mental well-being

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 practicals** in their notebook:

1. **Social Media Usage Audit:** Students record their daily social media usage for one week (time spent, platforms used, purpose of use). They analyze the data and prepare a short report on how their usage patterns influence mood, productivity, and sleep.

2. **Mental Health Reflection Journal:** Students maintain a reflective journal for seven days documenting their emotional responses before and after using social media. They analyze patterns and discuss how digital interactions affect psychological well-being.
3. **Case Study Analysis on Cyberbullying:** Students examine real or hypothetical cases of cyberbullying. They identify causes, psychological impacts, and propose preventive strategies and supportive responses.
4. **Digital Identity Mapping Exercise:** Students create a visual map comparing their **offline identity** and **online identity** (interests, values, behavior, communication style). They reflect on how social media shapes personal identity and self-presentation.
5. **Screen-Time and Sleep Relationship Study:** Students collect data on their screen time and sleep duration for one week. They prepare a simple analysis showing the relationship between late-night social media use and sleep quality.
6. **Social Media Content Analysis:** Students analyze selected social media posts from influencers or public pages. They evaluate the messages related to body image, lifestyle, or success and discuss potential psychological effects on young audiences.
7. **Designing a Digital Well-being Plan:** Students create a personal digital well-being plan including screen-time limits, mindful usage strategies, and scheduled offline activities to maintain mental balance.
8. **Educational Social Media Campaign:** Students design a small awareness campaign (poster series, short video, or infographic) promoting **healthy social media habits and mental health awareness** among peers.
9. **Peer Survey on Social Media and Mental Health:** Students conduct a small survey among classmates about social media habits, stress levels, and digital well-being practices. They summarize findings using simple charts and interpret the results.
10. **One-Day Digital Detox Experiment:** Students voluntarily avoid social media for 24 hours and document their experiences, emotions, productivity levels, and social interactions. They present reflections on the benefits and challenges of digital detox.

SUGGESTED REFERENCE & RESOURCES LINKS:

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1. Haidt, J. (2024). *The anxious generation: How the great rewiring of childhood is causing an epidemic of mental illness*. Penguin Press.
2. Primack, B. A. (2021). *You are what you click: How being selective, positive, and creative can transform your social media experience*. Chronicle Prism.
3. Harrison, V., Collier, A., & Adelsheim, S. (Eds.). (2019). *Social media and youth mental health*. American Psychiatric Association Publishing.
4. Keles, B., McCrae, N., & Grealish, A. (2020). *A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents*. Taylor & Francis.
5. Maheu, M. M., et al. (2020). *Tele behavioural health foundations in theory and practice for graduate learners*. Cognella Academic Publishing.

ENGLISH

Nature of Course: MDC (Multidisciplinary Course)

Course Code: MDC50ENG203(T)25

Course Title: Film and Media Studies

Course Level: 100

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

Course Objectives:

The objectives of this course are:

1. To make learners familiarize learners with key Film theories, the vocabulary and concepts of cinema studies;
2. to enable learners to apply the theories in the critical analyses of films.
3. to develop an understanding of films as a medium of sociological insight.
4. To make learners understand social media and its role in the life of young learners;
5. To enable learners to educate about the use and abuses of social media.

Course Learning Outcome:

After the completion of this course, the learners will be able

1. to appreciate innovation in cinematography, multilinear narratives and other styles;
2. to appreciate the role of film as a powerful visual medium in shaping our personal and cultural identity;
3. to decode contemporary film genres, and locate emergent viewing cultures.
4. to discuss and write a critical review of a film.
5. understand social media and its role in the life of young learners;
6. to gain knowledge about the use and abuses of social media.

Course Content:

UNIT I: Film and Media Studies

Film and Media Studies: Introduction, Technique, Technology.

Changing relationship between technique and technology from celluloid era to the time of media convergence.

UNIT II: Film Theory:

Genre Film Theory

Feminist Film Theory

UNIT III: Social Media

Social Media: Key Concepts, Types, Recent Trends

Impact of Social Media on Young Learners

Suggested Readings:

- David Bordwell, Kristin Thompson *et al. Film Art: An Introduction* (12' edition). 2020.
- Elisabeth Weis and John Belton. *Film Sound: Theory and Practice*. 1985.
- Leo Brandy, Marshall Cohen (eds.). *Film Theory and Criticism: Introductory Readings* (7th edition). 2009.
- Shane Denson and Julia Leyda (eds.). *Post-Cinema: Theorizing 21st Century Film*. 2016.
- Stam, R. *Film Theory: An Introduction*. John Wiley & Sons. 2017

FASHION DESIGNING

Creative Accessories (Practical)

Nature of Course	**Multi-Disciplinary Course– 3**		
Course Code	MDC50BFD203(P)25		
Course Title	**Creative Accessories**		
Course level	**---**		
Credit Details	**Lectures (Hrs.)**	**Practical (Hrs.)**	**Total Credit (Hrs.)**
	N/A	**3(90)**	**3 (90)**

Course Objectives

The course aims to

- Highlight the historical and contemporary significance of fashion accessories in personal and professional styling.
- Explore the various types, materials, and processes used in accessory design and development.
- Integrate creative design techniques to conceptualize and develop accessory collections.
- Examine the relationship between fashion accessories and overall fashion trends.
- Develop practical skills in illustration, prototyping, and presentation of accessories.

Learning Outcomes

After learning the module, learners will be able to

- Classify the various types of fashion accessories and their design principles.
- Identify and classify different types of fashion accessories and their roles in styling.
- Apply knowledge of materials, techniques, and processes to design innovative accessories.
- Analyze fashion trends, markets, and consumer behavior related to accessories.
- Create mood boards, sketches, and prototypes for personalized accessory collections.
- Develop an accessory portfolio showcasing design and construction skills.

MULTI-DISCIPLINARY COURSE - 3
(Course Content)

THIRD SEMESTER

Course Code: MDC50BFD203(P)25

Course Title: ***Creative Accessories (Practical)***

End Semester Marks: 70
Internal Assessment Mark: 30
Total Marks: 100, Credit: 3

Total hrs.: 90

Unit-1 **18 hrs.**

Fashion Accessories

1.1 **Introduction to Fashion Accessories**: Types, classification, tools, materials, scope, evolution of accessories in Indian and global fashion. Role of accessories in enhancing personality and style.

1.2 **Sketching and Rendering**: Sketching of any three designs of headgear, handbag,

footwear, ties and bows, belts, scarves, and gloves. Construction of any two.

Unit-2 **18 hrs.**

Design & Illustration of Accessories

3.1 **Designing Creative Accessory:** Elements & principles of design in accessory creation. Inspiration sources (nature, culture, art, architecture) and concepts inspired by traditional and modern trends.

3.2 **Design Illustration:** Develop theme boards and mood boards, trend forecasting and different types of accessories for accessory collections.

Unit-3 **18 hrs.**

Creation of Jewellery

3.1 **Sketching Designs and Development:** One full set of theme-based jewellery of women, men, and children's croquis (2 each)

3.2 **Restyling:** Restyling the accessories with creative techniques.

Unit-4 **18 hrs.**

Market survey and documentation

4.1 Market survey of current trends in creative accessories.

4.2 Preparing an accessory folio with sketches, swatches, and finished prototypes.

Suggested Readings:

1. *Abling, B. (2004), "Fashion Sketchbook", Parsons School of Design & Fashion Institute of Technology, Fairchild Publications, New York.*
2. *Schaffer, J. and Saunders, S. (2012), "Fashion Design Course: Accessories: Design Practice and Processes for Creating Hats, Bags, Shoes, and Other Fashion Accessories, Barron's Educational Series.*
3. *Sue, J. J., (2013). "Fashion Design: Accessories, Bags, Shoes, and More". Laurence King Publishing.*
4. *Jay, D. & Ellen, D. (2014). "Fashion Accessories: The Complete Guide". Fairchild Books.*
5. *Colleen, H., (2016). Accessories: Fashion and Design. Victoria & Albert Museum.*

Online References:

- *https://www.youtube.com/watch?v=cCgjE46GWzo*
- *https://www.youtube.com/watch?v=2vwK8I3RjUU*
- *https://www.youtube.com/watch?v=If86K89S3Ec*

List of Major Equipment

Pattern Drafting Tables *(large cutting & drafting purposes)*, Light Box / Tracing Boards *(for sketching & detailing)*, High-Resolution Printer & Scanner *(for visual boards & portfolio prep)*, Fabric Draping Stands & Hangers *(for displaying accessory samples)*, Sewing Machines *(basic stitching & accessory construction)*, Digital Drawing Tablets *(Wacom / iPad for digital accessory illustrations),* Projector & Smart Screen *(for presentations & visual merchandising demos)*

Major Laboratory Stores / Consumables Required

Drawing & Illustration Supplies – sketchbooks, markers, pencils, tracing sheets, watercolours, Textile & Material References – fabric swatches, beads, leather pieces, embroidery samples, Accessory Construction Materials – threads, sequins, buttons, clasps, buckles, chains, Mounting & Presentation Supplies – illustration boards, mounting sheets, adhesives, scissors, Printing & Documentation – A3/A4 printing papers, colour cartridges, portfolio folders, Traditional Jewellery & Styling References – ornaments, handcrafted pieces, photographs, General Stationery: rulers, cutters, tapes, pins, measuring tapes, staplers

Linkage between Programme Specific Learning Outcomes (PSOs) and Course Learning Outcomes (COs)

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	✓	✓		✓	✓	✓
CO 2	✓			✓	✓	✓
CO 3		✓	✓	✓		✓
CO 4	✓			✓	✓	✓
CO 5	✓			✓	✓	✓
CO 6	✓	✓	✓		✓	✓

HINDI

MDC-3 : MDC50HIN203(T)25

क्रेडिट - 3

तृतीय सत्र

प्रशासनिक एवं पारिभाषिक शब्दावली

इकाई 1. प्रशासनिक एवं पारिभाषिक शब्द : आशय एवं स्वरूप

इकाई 2. प्रशासनिक शब्दावली एवं विविध ज्ञानानुशासन

इकाई 3. प्रशासनिक एवं पारिभाषिक शब्द एवं उनके अनुप्रयोग

इकाई 4. वाक्यांश, टिप्पणी लेखन, मसौदा लेखन, कार्यालय आदेश

इकाई 5. साहित्यिक हिंदी एवं पारिभाषिक तथा प्रशासनिक शब्दावली में विभेद

संदर्भ :

1. प्रशासनिक शब्दावली (अंग्रेजी-हिंदी), केंद्रीय हिंदी निदेशालय, नई दिल्ली
2. प्रशासनिक शब्दावली (अंग्रेजी-हिंदी), केंद्रीय हिंदी निदेशालय, नई दिल्ली

HISTORY

Name of the Course MDC-III (Theory)

Nature of Course	MDC				
Course Code	MDC50HIS203(T)25				
Course Title	**Introduction to Indian Knowledge Systems**				
Course Level	Level ……				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/Week	Total Hours/ Week
	3	2	1		3
Course Audience	For 3rd 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 attempts to provide a brief introduction to the study of Indian Knowledge System. The main objective of the course is:

To facilitate the students with the concepts of Indian traditional knowledge and to make them understand the importance of roots of Indian Knowledge System.

2. To make students acquaint with the facets of traditional knowledge and their relevance and help them be able to apply it to their daily life.

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

1.	understand Indian culture and civilisation including its knowledge system

	and tradition,
2.	to understand the knowledge, art and creative practices, skills and values in ancient Indian system,
3.	explore the underlying unity despite the visible diversity in Indian culture and traditions,
4.	understand development of varied knowledge systems and practices in ancient India and its contributions to the world,
5.	Comprehend the contribution of Ancient Indian tradition to modern system.

Detailed Syllabus Content

Introduction to Indian Knowledge Systems

Unit	Unit Name	Detailed Syllabus	Credit/Hours
I	**Indian Knowledge System**	• Introduction to Indian Knowledge System • Nature of Indian Knowledge System • Scope of Indian Knowledge System • Significance of Indian Knowledge System in the Present Scenario.	9 hrs.
II	**Indian Culture and Civilization**	• Introduction to Key Aspects of Indian Culture and Civilization • Significance and Importance of Indian Culture and Civilisation • Vedas and Vedangas • Sastras and the Great Indian Epics • Fine and Performing Arts.	10 hrs.
III	**Science and Technology**	• Introduction to Ancient Indian Science • Mathematics • Indian Mathematicians and their Contributions • Indian Astronomy and Astronomical Instruments • Ancient Indian Metallurgy • Iron in Early India.	10 hrs.
IV	**Health And Wellness**	• Contribution of Ancient India to Health and Wellness • Ayurveda and Yoga Ayurveda • Key Principles and Common Practices of Ayurveda • Charaka's Contributions to Indian Health and Wellness Science.	10 hrs.
V	**Indigenous Knowledge System of**	• Folk Music and Dance Forms of Northeast • Metalworks in Northeast India • Folk culture and folk medicine practice in	6 hrs.

	Northeast	Manipur.	

Suggested Readings

1. B. Mahadevan, Nagendra Pavana, Vinayak Rajat Bhat: Introduction to Indian Knowledge System: Concepts and Applications, PHI Learning, 2022.
2. Kapil Kapoor and Avadhesh Kumar Singh (ed.) ,: Indian Knowledge Systems, IIAS, Shimla.
3. D. P. Chattopadhyaya: History of Science, Philosophy and Culture in Indian Civilization: volume 4, Centre for Studies in Civilisations, 2005.
4. Basham, A.L.: The Wonder That Was India, Oxford University Press, Delhi.
5. Saswati Bordoloi: Bridging Ancient Wisdom and Modern Knowledge: Indian Knowledge Systems, Kamakhya Book Agency, Guwahati, 2025.
6. N.M. Khandelwal and Pratap Sinh Chauhan: Indian Knowledge System, Himalaya Publishing House, 2023
7. Amrendra Kumar Thakur: Technology of the Tribes of Northeast India, DVS Publishers, Guwahati, 2017.
8. M. Kirti Singh: Folk Culture of Manipur, Manas Publications, Delhi, 1993.

Course Teaching-Learning Process

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

- Class lectures
- Tutorials
- 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										
CO2										
CO3										
CO4										
CO5, etc.										

Assessment Methods

- Oral and written examinations
- Problem-solving exercises,
- Seminar and presentations,
- Interactive sessions.
- End Semester Examination

HOME SCIENCE

MDC50HSC203(T)25: COMMUNICATION SKILLS IN EXTENSION EDUCATION

Credit –(3)

Contact Hour – 5 Hrs.

Nature of Course	**MDC – 3**				
Course Code	MDC50HSC203(T)25				
Course Title	Communication Skills in Extension Education				
Course Level	Level-200				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	3	3			3

Course Objective

The course aims to develop students' understanding of the concepts, processes and principles of communication in extension education. It enables students to develop effective listening, speaking, reading, writing, presentation and interpersonal communication skills for working with rural communities. The course also focuses on identifying and overcoming communication barriers, building trust and rapport, and applying modern ICT and digital communication technologies for effective extension services.

Course Outcomes

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

1. Explain the concepts, processes, types and principles of communication and their application in extension education.
2. Demonstrate effective listening, speaking, reading, writing, presentation and interpersonal communication skills.
3. Apply questioning, interviewing, group discussion, public speaking, persuasion and motivation skills in extension activities.
4. Identify and overcome communication barriers using feedback, empathy, reinforcement, trust and rapport-building strategies.
5. Utilize ICT, mobile phones, social media and digital platforms for effective and participatory extension communication.

Unit-l: Fundamentals of Communication Skills

Meaning, definition, nature and importance of communication; elements of communication; communication process; types of communication; verbal and non-verbal communication; formal and informal communication.

Unit-ll: Communication in Extension Education

Meaning and concept of extension communication; role and importance of communication in extension education; principles of effective extension communication; communication functions; extension teaching-learning process; communication flow in rural communities.

Unit-lll: Essential Communication skills for Extensional Professionals

Listening skills; speaking skills; reading and writing skills; presentation skills; interpersonal communication; questioning and interviewing skills; group discussion; public speaking; persuasion and motivation.

Unit-lV: Barriers and Strategies for Effective Communication Skills

Physical, psychological, semantic, cultural and social barriers; language and literacy problems; perception and attitude; overcoming communication barriers; feedback and reinforcement; empathy; building trust and rapport with farmers and rural communities.

Unit-V: Modern Communication Technologies

ICT in extension education; mobile phones and social media; digital and online communication; video and audio-based extension; use of WhatsApp and other digital platforms; participatory communication.

References

1. Dahama, O.P. and Bhatnagar, O.P. *Education and Communication for Development*. Oxford & IBH Publishing Co., New Delhi.
2. Dubey, V.K & Indira, V., Education and Communication, New Age International (P) Limited Publishers, New Delhi
3. Ray, G.L. *Extension Communication and Management*. Kalyani Publishers, New Delhi.
4. Rogers, E.M**.** *Diffusion of Innovations*. Free Press, New York.
5. Van den Ban, A.W. and Hawkins, H.S. *Agricultural Extension*. Blackwell Science, Oxford.
6. Singh, R. *Communication and Extension Education*. Appropriate academic/reference edition as prescribed by the institution.
7. Rogers, E.M. and Kincaid, D.L. *Communication Networks: Toward a New Paradigm for Research*. Free Press, New York.
8. Berlo, D.K. *The Process of Communication: An Introduction to Theory and Practice*. Holt, Rinehart and Winston.
9. Kumar, B. and Hansra, B.S. *Extension Education for Human Resource Development*. Concept Publishing Company, New Delhi.

CO–PSO Mapping Matrix

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

LAW (HUMAN RIGHTS)

MDC50HRT 203 (T) 25: International Human Rights Perspectives
CREDIT 3

Course Objectives:

The focus of this Course is on the development of International Concern for human rights and of norms and institutional mechanisms at the international Level. It deals with the emergence of diverse International instruments on rights and duties and the role of the United Nations.

Course content:

Unit I: Human Rights and UN Charter

I) Background to the Adoption of UN Charter.
II) Human Rights Provisions in the Charter
III) Significance of UN Charter

Unit II: United Nation Organs and Obligation

I) General Assembly
II) Economic and Social Council
III) UN Human Rights

Commission Unit III:

International Bill of Rights

I) Universal Declaration of Human Rights, 1948
II) International Covenant on Civil and Political Rights, Optional Protocols
III) International Covenant on Economic, Social, Cultural Rights , Optional Protocol

Course learning Outcome:

After completion of this course, students will be able to understand the diverse international instruments on Human Rights. They will also learn the UN system, enforcement of International Human Rights Instruments as well as the specialized bodies under different specialized instruments.

Suggested Readings

1. UN, Human Rights: A Compilation of International Instruments (New York: UN Publication Division,1983).
2. UN Centre for Human Rights, Human Rights and Pre-trial Detention: A Handbook of International Standards relating to Pre-trial Detention (New York: UN Publication Division, 1994).
3. UN Centre for Human Rights, International Human Rights Standards for Law Enforcement (Geneva:World Campaign for Human Rights, 1996).
4. Agarwal, Amita, "Human Rights of Women in India and International Standards", in M.P.Dube and Neeta Bora, eds., Perspectives on Human Rights (New Delhi: Anamika Publishers, 2000).
5. Chowdhury, Subrata Roy, The Rule of Law in a State of Emergency: The Paris Minimum Standard of Human Rights Norms in a State of Emergency (New York: St. Martin Press, 1988).
6. Meron, Theodor, Human Rights and Humanitarian Norms as Customary Law (Oxford: Clarendon Press, 1989).
7. Morsink, Johannes, The Universal Declaration of Human Rights: Origins, Drafting and Intent (Philadelphia: University of Pennsylvania Press, 1999).
8. Saksena, K.P., "International Covenants in Human Rights", Indian Yearbook of International Affairs,vol. XV-XVI, 1966-67.
9. Sanajaoba, N., Human Rights: Principles, Practices and Abuses (New Delhi: D.K. Publishers, 1996). 10.Vijapur, A.P., "No Distant Millennium: The UN Human Rights Instruments and the Problem of Domestic Jurisdiction", Indian Journal of International Law, vol.35, 1995.

LINGUISTICS

MDC50LIN203(T)25: Language, Education and Media

(Credit 3, Marks 100)

Learning Outcomes

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

1. Define and explain basic concepts related to language, education, and media.
2. Describe the role of language in teaching–learning processes and media communication.
3. Identify different forms of media and their linguistic features.
4. Apply basic analytical skills to examine language use in classrooms and media texts.
5. Analyze how language influences knowledge construction, representation, and public opinion.
6. Recognize ethical issues related to language use in education and media.

12.1 Language and Education

Language as a medium of education; Role of language in learning and cognition; Mother tongue, multilingualism, and education; Language and literacy: reading, writing, and comprehension; Classroom communication: teacher–student interaction; Language, identity, and inclusion in education; Brief overview of language-in-education policy in India

(Contact Hours: 15)

12.2 Language and Media

Concept of media: print, electronic, and digital; Language of newspapers, television, radio, and social media; Media discourse and audience; Persuasion, bias, and ideology in media language; Representation of gender, class, culture, and identity; Role of media in shaping public opinion; Introduction to media literacy **(Contact Hours: 15)**

12.3 Language, Education, and Media in Society

Relationship between education and media; Media as an educational tool; Language standardization and popularization through media; Digital media and language change; Ethical issues in educational and media communication; Case studies from Indian and regional contexts; Critical awareness of language use in public domains, Impact of language used in media on society. **(Contact Hours: 15)**

Reading List

1. Crystal, D. (2003). *The Cambridge Encyclopedia of the English language* (2nd ed.). Cambridge University Press.

2. Halliday, M. A. K. (1993). *Towards a language-based theory of learning*. Linguistics and Education, 5(2), 93–116.

3. Fairclough, N. (1995). *Media discourse*. Edward Arnold.

4. Thorne, S. L., & Black, R. W. (2011). *Language and literacy development in the digital age*. Routledge.

5. Buckingham, D. (2003). *Media education: Literacy, learning and contemporary culture*. Polity Press.

6. Street, B. V. (2001). *Literacy and development: Ethnographic perspectives*. Routledge.

MANIPURI

History of Modern Manipur

Course Objectives (COs) and Course Learning Outcomes (CLOs): All undergraduate students must complete this introductory-level of course termed as MDC (Multidisciplinary Course) **MDC50MAN203(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. **: MDC50MAN203(T)25**
Course Title **: History of Modern Manipur**
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: -100
(3 Credits-60 Hrs)

Unit -1: Pre-Colonial Era (Before 1819) -20
(0.6 Credits-12 Hrs)

(ii) Kingdom of Manipur
(iii) Cultural History of the regime
(iv) Arts and Literature of the period

Unit- 2: Burmese Invasion & British Influences (1819-1891) -40
(1.2 Credits-24 Hrs)

(i) Seven Years Devastation (1819-1825)
(ii) Anglo-manipuri War (1891) and British Paramountcy
(iii) Nupilal I & II
(iv) Excluded Area Policies

Unit- 3: Post Independence Era -40
(1.2 Credits-24 Hrs)

(i) Accession to India
(ii) Statehood and Modern Challenges

References:

1. Jyotirmoy Roy, *History of Modern Manipur,* Culcutta: Eastlight Book House, 1958
2. Gangmumei Kamei, *A History of Modern Manipur 1826-2000*, Shimla: Indian Institute of Advance Study & New Delhi: Akansha Publishing House, 2017
3. RK Jhaljit, *A Short History of Manipur*, Imphal: Ningthemcha Publishing House, 2023 (3rd Ed)
4. Naorem Sanajaoba, *Manipur: Past And Present Vol 1-4*, New Delhi: Mittal Publications, 2005
5. Rena Laishram, *Early Meitei History(Religion, Society & The Manipuri Puyas),* New Delhi: Akansha Publishing House, 2009

MIZO

Course Code: MDC50MIZ203(T)25

Course Title: Mizo Hla Thlankhawm (Selected Mizo Poems)

Course Level: 100

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

Course Objective:

The course aims to acquaint students with the major trends and distinctive characteristics of Mizo poetry while fostering an in-depth understanding of its origin, growth, and development. It seeks to enable learners to appreciate the evolution of Mizo poetic traditions and their significance within the broader context of Mizo literature and culture.

Learning Outcomes:
Some of the learning outcomes that students of this course are required to demonstrate are:

- Identify the major trends and characteristics of Mizo Poetry
- Demonstrate in-depth knowledge and understanding of its growth/development

Course Content: 3 Credits

Unit 1: (i) Tawnmang Lasi (Forest Fairy) - Saitluanga
(ii) Nghilhlohna Par (Forget-Me-Not) - P.S. Chawngthu

Unit 2: (i) Tu Nge Inthlei Thei (Who Can Discriminate)- K. Hminga
(ii) Kan Dam Chhan (Purpose of Life) - Lalduhzuala

Unit 3: (i) Nunna Par Tlawmngaihna (Tlawmngaihna - The Blossom of Life) - H. Lalrinfela (Mafa-a)
(ii) Tlawmngaihna Hlu (The Precious Tlawmngaihna) - Rokunga

Unit 4: (i) Insuihkhawm leh Zai I Rel Ang (Let Us Join and Re-Unite Again) - Capt. L.Z. Sailo
(ii) Ropuiliani (Lady Chief Ropuiliani) - Lalsangzuali Sailo

Suggested Readings

1. Lalrinfela, H. *Chawlhna Tuikam.* Gilzom Offset, Aizawl. 1997
2. Khiangte, Laltluangliana Dr., *Mizo Hla leh Chham Hlate.* Felfim Computers, Aizawl. 2009
3. ___. Biography: Capt. L.Z. Sailo, Padma Bushan Awardee.Swapna Printing Works Pvt. Ltd. Kolkatta. 2008
4. Sailo, L.Z. *Insuihkhawm Leh Zai I Rel Ang U.* Lengchhawn Press, Bethel House, Khatla. 1st ed. 2008.
5. Thanmawia R.L., *Mizo Poetry.* Din Din Heaven, Aizawl. 1998
6. Ngurliana, Brig (SA). *Pi Pu-te Hla.* Gilzom Offset, Aizawl. 2009
7. *YMA Hlabu 1999*. Central YMA Project & Documentation Sub-Committee (1998-99). LV Art, Chanmari, Aizawl. 1999

PHILOSOPHY

CONFLICT & CONFLICT RESOLUTION
Code:MDC50PHI203(T)25

Course Objective:

The course is designed to make the student understand how conflicts arise and how they are organically resolved in social systems.

Course Learning outcome:

Understanding the dynamics of conflict will empower the learner to give valuable academic input towards conflict resolution at the international, national and regional theatres of conflict.

Unit I:	The categories of understanding conflict:
	State Power
	Rogue State
	Nationality
	Typology of Conflict
Unit II:	Conflict Resolution Mechanism:
	Rule of Law, Legitimacy, Continuity in Change, Libertarian Socialism and The Principle of Equity of Nationalities—to constitute the cornerstone of Conflict Resolution.
	Peace Making and Peace Building
	Role of NGOs in Conflict Resolution
	Gandhi's Peace Brigade

Suggested readings:

Bondurant, J. V. (1959) *Conquest of Violence*, Bombay

Oxford University Press. Burton, J. W. (1984) *Global Conflict*, London, Wheatsheef.

R. K. Nimai, Thangjam Brojen, et. al. (eds) *Manipur Papers, Volume 1*, 2 and 3, Imphal, Taragi Cheishu, 2024.

M.C. Arunkumar & Aheibam Koireng (eds) *Contemporary Socio-Political Movements in North East India*, Imphal: Centre for Manipur Studies, Manipur University, 2016.

Thangjam Homen (ed) *Beyond Headlines: Deconstructing the Manipur Unrest,* Imphal: People's Alliance for Peace and Progress, Manipur, 2024.

Phanjoubam Tarapot, *Drug Abuse and Illicit Trafficking in North East India*, New Delhi: Vikash Publishing House, 1997.

POLITICAL SCIENCE

Feminism: Theory and Practice: MDC50PSC203(T)25

Course objective: This course attempts to introduce the students about history, different strands of feminist thinking and outlook across the globe. It also explains evolution, debates and dynamics of women's movements in the context of gender inequality. It examines types of violence against women and issues of the women reproductive health in India.

Course Learning Outcomes : The students will have some understanding of the history, different strands of feminist thinking in the globe after the course. The

students will be able to explain evolution, debates and dynamics of women's movements both in the world and India .They will have some insights into violence against women and issues of the women reproductive health in India.

Detailed Syllabus Content

Unit	Unit Name	Detailed Syllabus	Credit
I	Concept of Feminism	Feminism: Family, Community and State	1
II	Women's movement	Women's Movements and Issues both in the world and India	1
III	Violence and Health issues of women in India	Various types of violence against women in India and issues of reproductive health and women's rights	1

Readings

A Bloom, (1987), 'Jean-Jacques Rousseau', L Strauss and J Cropsey, (eds.), *History of Political Philosophy*, 2nd edition, Chicago: Chicago University Press, pp. 559-580.

A Kollontai, (1977), 'Make Way for Winged Eros: A Letter to the Working Youth', in *Selected Writings of Alexandra Kollontai*, Allison & Busby, pp. 201-292.

A Kollontai, (1977), 'Social Democracy and the Women's Question', in *Selected Writings of Alexandra Kollontai*, London: Allison & Busby, pp. 29-74.

A Skoble and T Machan, (2007), *Political Philosophy: Essential Selections*, New Delhi: Pearson Education, pp. 328-354.

Aparna Basu and Bharati Rau, (1996), *Women's Struggle*, New Delhi:

Manohar Arpita Mukhopadhyay, (2018), *Feminisms*, New Delhi: Orient Blackswan

B Hooks, (2010), 'Feminism: A Movement to End Sexism', in C McCann and S Kim, (eds.), *The Feminist Reader: Local and Global Perspectives*, New York: Routledge, pp. 51-57.

Betty Friedan, (1963), *The Feminine Mystique*, New York: Norton

Chris Beasley, (1999), *What is feminism? An Introduction to Feminist Theory*, London: SLE pound.

Maithreyi Krisnaraj and Alice Thorner, (2000), *Ideals Images and Real Lives: Women in Literature and History*, New Delhi: Orient Longman

N Menon (2008) 'Gender', in R Bhargava and A Acharya, (eds.), *Political Theory: An Introduction*, New Delhi: Pearson, pp. 224-233.

Neera Desai, (1988), *A Decade of Women's Movement in India*, Bombay: MeenaPandev

Padma Anagol, (2010), *The Emergence of Feminism in India 1850-1920*, Farnham, UK: Ashgate Publishing

Rinita Mazumder, (2010), *A short course of Feminist Theory*, Kolkata: Anustup

Rosemarie Tong, (1989), *Feminist Thought: A Comprehensive Introduction*, Boulder: Westview Press.

Saheli Women's Centre, (2001), 'Reproductive Health and Women's Rights, Sex Selection and feminist response' in S Arya, N Menon and J Lokneeta, (eds.), *Nariwadi Rajneeti*, University of Delhi: Hindi Medium Implementation Board, pp. 284-306 Simon De Beauvoir, (1949), *Second Sex*, Translated and edited by HM Parshley, London:Vintage Book.

V Bryson, (2007), *Gender and the Politics of Time*, Bristol: Polity Press

V Geetha, (2002), *Gender (Theorising Feminism)*, Kolkata, Stree, pp. 1-20.

PSYCHOLOGY

MDC50PSY203(T)25: Psychology of Self: Identity, Awareness and Growth

Credit-3

75 Marks

Contact Hours-60 Hours

Nature of Course	Multi-disciplinary Course				
Course Code	MDC50PSY203(T)25				
Course Title	Psychology of Self: Identity, awareness and Growth				
Course Level	Level 200				
Credit Details	Total Credit	Lecture/ Week	Tutorial/ Week	Practical/ Week	Total Hours/ Week
	3	3			3
Course Audience	Major Students enrolled in the FYUGP from other disciplines.				
Proposed by (for non-core courses)	No board of studies.				
Pre-Requisites (if any)	10 + 2+FYUGP in Psychology (1 year)				
Skill Training Required (if any)	None				
Pre-Requisite Course Required (if any)	10 + 2+ FYUGP in Psychology (1 year)				
Faculty Eligibility and Specialization (if any)	Master's Degree in Psychology with Ph. D. and/ or NET qualification in Psychology will be preferred.				

COURSE OBJECTIVES:

The course *Self and Identity* aims to provide students with a foundational understanding of the psychological concepts of self and identity and their significance in human development and behaviour. It introduces learners to the development of self-concept, self-esteem, identity formation, and the influence of biological, psychological, social, and cultural factors on the development of the self. The course further explores the role of interpersonal relationships, attachment, and social identity while emphasizing mindfulness, self-awareness, and self-care as essential components of psychological well-being. By integrating theoretical concepts with practical applications, the course seeks to promote self-reflection, emotional resilience, and personal growth.

COURSE OUTCOME:

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

- Explain the concepts of self, self-concept, self-esteem, self-awareness, and identity from psychological perspectives.
- Analyse the developmental, social, cultural, and interpersonal factors that influence the formation of self and identity.
- Apply psychological concepts of self-awareness, mindfulness, resilience, and self-care to promote personal well-being and healthy interpersonal relationships.
- Evaluate the role of social identity, attachment, gender, and culture in shaping human behaviour and identity.
- Demonstrate greater self-reflection and interpersonal competence by applying psychological principles to everyday personal and social contexts.

Unit- 1: Foundations of Self and Identity

Meaning, nature, and characteristics of the self; Self-concept, self-esteem, and self-awareness; Components of the self; Development of the self across the lifespan; Identity development: Concept and Erikson's psychological perspective; Understanding self and others.

Unit-2: Social and Cultural Perspectives of Self

Social identity and Social Identity theory; Role of family, peers, and attachment in identity formation; Identity crisis; Culture, gender, and identity; The looking-glass self; Self in interpersonal relationship and society.

Unit-3: Self-awareness, Well-being, and Personal Growth

Mindfulness and meditation, Self-regulation and emotional well-being; Managing stress and daily hassles; Self-care and resilience; strategies for enhancing self-awareness; Application of self and identity in everyday life.

Reading Lists:

Baumeister, R. F. (Ed.). (1999). *The Self in Social Psychology*. Psychology Press.
Baron, R. A., Branscombe, N. R., & Byrne, D. (2022). *Psychology* (14th ed.). Pearson.
Ciccarelli, S. K., & White, J. N. (2021). *Psychology* (6th ed.). Pearson.
Myers, D. G., & DeWall, C. N. (2021). *Psychology* (13th ed.). Worth Publishers.
Passer, M. W., & Smith, R. E. (2018). *Psychology: The Science of Mind and Behaviour* (7th ed.). McGraw-Hill Education.
Santrock, J. W. (2022). *Life-Span Development* (18th ed.). McGraw-Hill Education.
Weiten, W. (2022). *Psychology: Themes and Variations* (11th ed.). Cengage Learning.

CO-PSO mapping matrix

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

SOCIAL WORK

Mental Health: MDC50BSW203(T) 25

Course Objective

1. Understand and discuss the definitions and components of mental health and differentiate between normal and abnormal behavior.
2. Identify the epidemiology, etiology, clinical manifestations, and management strategies for common mental and behavioral disorders including substance use, schizophrenia, mood, and neurotic disorders.
3. Describe the mental health care services, policies, laws, and innovative approaches in mental health, especially within the Indian context.

Course Learning Outcome

1. Learners will be able to apply knowledge of mental health concepts to recognize and classify mental and behavioral disorders effectively.
2. Learners will demonstrate ability to design and implement family, community, and school-based mental health interventions.
3. Learners will articulate the role of social workers in diverse mental health settings such as hospitals, addiction counseling, prisons, and child guidance clinics

Course Contents

Unit I: Concepts of Mental Health and Illness

Definitions and perspectives of mental health; Mental health as a positive concept, Components of mental health; Meaning of normal and abnormal behaviour, Classification of mental and behavioural disorders Lecture Hours

Unit II: Mental and Behaviour Disorders

Epidemiology,etiology, types, clinicalmanifestations and management of: Psychoactive substance use disorders, Schizophrenia, Mood disorders, Neurotic, Stress related, Somato form disorders

Unit III: Mental Healthcare Services, Policy and Programmes

Mental Healthcare scenario in India, Policy related to mental health, Laws related to mental health, Innovative approaches to mental health care

Unit III: Response and intervention

Family Interventions: Psycho educational and supportive interventions, social skills training: Activities of daily living and vocational skills training

Unit IV: Community and school mental health

Community mental health-preventive, promotive and remedial approaches, Various approaches in school mental health programmes

Unit V: Role of social worker in different settings

Drug and addiction counseling, Mental health hospitals, Prison settings, Child guidance clinic,

School counselor

Suggested Reading

1. Horwitz, A.V., & Scheid, T.L. (eds.) 1999 A Handbook for the Study of Mental Health: Social Contexts, Theories, and Systems. Cambridge: Cambridge University Press.
2. Gottlieb, B.H. 1983 Social Support Strategies: Guidelines for Mental Health Practice. New Delhi: Sage Publications.
3. Sahni, A. 1999 Mental Health Care in India: Diagnosis, Treatment and Rehabilitation. Bangalore: Indian Society of Health Administrators.
4. Mane, P., & Gandevia, K.Y. (eds.) 1993 Mental Health in India: Issues and Concerns. Bombay: Tata Institute of Social Sciences.
5. Patel, V., & Thara, R. 2002 Meeting the Mental Health Needs of Developing Countries: NGO Innovations in India. New Delhi: Sage Publications.
6. World Health Organization1990 the Introduction of a Mental Health Component into Primary Health Care. Geneva.
7. Dhanda, A. 2000 Legal Order and Mental Disorder. New Delhi: Sage Publications.
8. Alegría, M., Page, T., Hansen, H., & Walter, M. I. (2020). Mental health law, policy, and program in India. Cambridge University Press.
9. Leff, J. (2021). Family-Based Intervention for Child and Adolescent Mental Health. Cambridge University Press.
10. Toseland, R. W., & Rivas, R. F. (2017). Social Work Practice in Mental Health: An Introduction. SAGE Publications.

SOCIOLOGY

SOCIAL DEMOGRAPHY: MDC50SOC203(T)25

Course Objectives:

This course provides a critical understanding of the interface between population and society. It analyses the role of fertility, mortality and migration on the composition, size, and structure of population. The course addresses the issue of domestic and international population movements and their economic, political and social implications.

Course Learning Outcomes –

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

1. Demonstrate a knowledge of key concepts in and different approaches to population studies.
2. Recognise the relations between population and social groups and processes by linking population size, composition, and growth with fertility, reproduction, and mortality.
3. Explain the dynamics between population, gender, and migration in terms of the role of institutions, policies and programmes, and social relations and groups.
4. Undertake a sociological analysis of international and national population dynamics and population policies.

Course Content-

1. Population and Society –
   Development of population studies, World Population: Growth and distribution, population growth in India.
2. Demographic theories :
   Pre-Malthusian theories, Malthusian theory, Optimum population theory, Demographic transition theory.
3. Population Structure and Characteristics –
   Age and Sex structure, Marital status, Literacy and religion.
4. Demographic Processes-
   Mortality, Fertility, Migration- Concepts, Determinants, differentials and Measures.
5. Population Planning and control:

Population Policy in India, National Population Policy 2000, National Rural Health Mission, Implementation and effectiveness of growth control measures.

Suggested Readings -

1 Principles of Population Studies (14th Edition): Asha and Tara Kanitkar: Himalaya Publishing House, Mumbai.

2. An Introduction to Social Demography: K Mahendra, Usha Bambawale: Vikas Publishing House, Delhi.

3. Bose A. 1991. Demographic Diversity of India. Delhi: Publishing Corporation.

4. Bose, A 1996, India's population Policy; Changing Paradigm, Jaipur: Rawat Publications.

5. Mahadevan, K 1996 Demographic Transition and Development Strategy in India. Jaipur Rawat Publication.

6. Sharma R.K 2002. Demography and Population Problems, New Delhi; Atlantic Publications and Distribution.

7. Srivastava, O.S 1994 Demography and Population Studies, New Delhi; Vikas Publishing House.

YOGA

Course Title: : Yoga for Health Promotion
Course Code: MDC50YOG203(T)25
Credits: 3
Contact hours: 45 Hours

Course Objectives

1. To provide foundational understanding of the **human body and its relevance in Yoga practice.**
2. To develop awareness of the **role of Yoga in health promotion and disease prevention.**
3. To inculcate **Yogic attitudes, values, and lifestyle disciplines** for holistic well-being.
4. To enable learners to apply **Yogic methods for stress management and personality development.**
5. To promote understanding of **yogic diet (Aahara), daily routine (Dincharya), and seasonal discipline (Ritucharya)** for balanced living.

Course Learning Outcomes (CLOs)

After successful completion of this course, students will be able to:

1. Explain the **basic structure and functions** of the human body relevant to Yoga.
2. Demonstrate understanding of the **holistic concept of health** according to Yoga.
3. Identify and practice **Yogic attitudes and values** for physical, mental, and spiritual well-being.
4. Apply **Yogic principles for health promotion and disease prevention.**
5. Describe the **importance of Yoga diet, Dincharya, and Ritucharya** in healthy living.
6. Analyze the **Yogic approach to stress management** and emotional balance.
7. Recognize the **preventive role of Yoga** in common lifestyle-related disorders.
8. Integrate **Yoga principles for personal growth and personality development.**
9. Apply **Yogic philosophy and lifestyle practices** in daily life for optimal health.

UNIT I – Fundamentals of Health and the Human Body

- Brief introduction to human body: systems and their functions.
- Concept of *Sharira* (body), *Manas* (mind), and *Atman* (soul) in Yoga.
- Health and disease according to Yogic and modern perspectives.
- Interrelationship between body, mind, and breath.

UNIT II – Role of Yoga in Health Promotion

- Meaning and scope of health promotion in Yoga.
- Yogic attitudes: *Maitri, Karuna, Mudita, Upeksha.*
- *Pancha Kosha* concept and its relevance to health.
- Yogic practices for physical and mental well-being.
- Holistic approach of Yoga toward health and disease.

UNIT III – Yogic Lifestyle and Diet

- Concept of *Aahara (Diet)* according to Yogic texts.
- Importance of *Mitahara* and *Sattvic Aahara*.
- *Dincharya* (daily routine) and *Ritucharya* (seasonal regimen) for health.
- Discipline (*Sadhana*) and moderation (*Brahmacharya*) in daily life.
- Yogic lifestyle for harmony and balance.

UNIT IV – Yogic Health Management

- Basic knowledge of managing common health issues..
- Yogic management of **stress and psychosomatic disorders.**
- Yogic prevention and control of **common diseases** (e.g., obesity, diabetes, hypertension, asthma).
- Importance of Yogic therapy in preventive healthcare.

UNIT V – Yoga and Personality Development

- Concept of personality in Yogic psychology.
- Role of Yoga in emotional and spiritual development.
- Self-discipline (*Tapas*), self-study (*Svadhyaya*), and self-realization (*Ishwar Pranidhana*).
- Integration of Yoga philosophy in personal and social life.
- Yoga for confidence, concentration, and ethical behavior.

Recommended Textbooks / References

1. **Basavaraddi, I.V.** (2020). *Foundations of Yoga.* MDNIY Publications, New Delhi.
2. **Swami Kuvalayananda & Dr. S. L. Vinekar.** (2021). *Yogic Therapy – Its Basic Principles and Methods.* Kaivalyadhama, Lonavla.
3. **Swami Satyananda Saraswati.** (2021). *Asana, Pranayama, Mudra, Bandha.* Bihar School of Yoga.
4. **National Council of Educational Research and Training (NCERT).** (2021). *Yoga: A Healthy Way of Living – Class XI & XII.* New Delhi: NCERT.
5. **Swami Sivananda.** (2020). *The Science of Pranayama.* Divine Life Society, Rishikesh.
6. **Iyengar, B.K.S.** (2019). *Light on Yoga.* HarperCollins Publishers.
7. **Swami Niranjanananda Saraswati.** (2018). *Yoga for Health and Peace.* Bihar School of Yoga.