



DIGBOI COLLEGE, DIGBOI

COURSE DISTRIBUTION

SESSION: 2022-23



DIGBOI COLLEGE, DIGBOI

COURSE DISTRIBUTION

SESSION: 2022-23

Odd Semester

DEPARTMENT OF EDUCATION**COURSE DISTRIBUTION****ODD SEMESTERS, JUNE 2022 TO DECEMBER, 2022**

SEMESTERS	NAME OF THE PAPERS	NAME OF THE TEACHER	PAPER/ UNIT TAKEN
SEM-I	PHILOSOPHICAL FOUNDATIONS OF EDUCATION	DR. POBAN GOGOI	UNIT: I & V
		PRADIP DUTTA	UNIT: II & III
		SNEHA GOGOI	UNIT: IV & V
	SOCIOLOGICAL FOUNDATIONS OF EDUCATION	DR. POBAN GOGOI	UNIT: II & V
		PRADIP DUTTA	UNIT: I & III
		SNEHA GOGOI	UNIT: IV & V
SEM-III	GREAT EDUCATORS AND EDUCATIONAL THOUGHTS	DR. POBAN GOGOI	UNIT: I & V
		PRADIP DUTTA	UNIT: II & III
		SNEHA GOGOI	UNIT: I & IV
	MEASUREMENT AND EVALUATION IN EDUCATION	DR. POBAN GOGOI	UNIT: III & V
		PRADIP DUTTA	UNIT: I & IV
		SNEHA GOGOI	UNIT: II
	EXPERIMENTAL PSYCHOLOGY AND LABORATORY PRACTICAL	DR. POBAN GOGOI	UNIT: II & VI
		PRADIP DUTTA	UNIT-I
		SNEHA GOGOI	UNIT-III, IV & V
SEM-V	EDUCATION IN POST INDEPENDENT INDIA	DR. POBAN GOGOI	ALL UNITS
	EDUCATION IN WORLD PERSPECTIVE	PRADIP DUTTA	ALL UNITS
	INCLUSIVE EDUCATION	SNEHA GOGOI	ALL UNITS
	MENTAL HEALTH ISSUES	SNEHA GOGOI	ALL UNITS

Sd/
HoD of Education
Digboi College

DEPARTMENT OF POLITICAL SCIENCE

COURSE DISTRIBUTION - (2022-23)

(ODD SEMESTER)

<p><u>Dr. A.C. Dutta</u></p> <p><u>SEM I</u> Major: Unit – i & v Minor: Unit- i & v</p> <p><u>SEM III</u> Paper C5: Units 1 & 3 Paper C6: Units 1 & 4</p> <p><u>SEM V</u> Paper C11: Unit 5 Paper C12: Units 1 & 2 DSE 1: Unit 5 DSE 2: Unit 1</p> <p><u>Banjit Kumar Das</u></p> <p><u>SEM I</u> Major: Unit – iv & v Minor: Unit- iii & v GEC; Unit-iii& iv</p> <p><u>SEM III</u> Paper C5: Units 2 & 4 Paper C6: Units 2 & 5 GE: 3 & 4</p> <p><u>Sem V</u> Paper C11: Units 2 & 3 Paper C12: Unit 3 DSE 1: Unit 2 DSE 2: Unit 3</p>	<p><u>Dr. Janardan Borah</u></p> <p><u>SEM I</u> Major: Unit – ii & v Minor: Unit- ii & v GEC; Unit-I & iv</p> <p><u>SEM III</u> Paper C6: Unit 3 Paper C7: Units 4 & 5 GE: Unit 2</p> <p><u>Sem V</u> Paper C11: Units 4 Paper C12: Unit 5 DSE 1: Units 1 & 3 DSE 2: Unit 4</p> <p><u>Jitu Borah</u></p> <p><u>SEM I</u> Major: Unit – iii & v Minor: Unit- iv & v GEC: Unit- ii & iv</p> <p><u>SEM III</u> Paper C5: Units 5 Paper C7: Units 1,2 & 3 GE: Units: 1 & 5</p> <p><u>Sem V</u> Paper C11: Unit 1 Paper C12: Unit 4 DSE 1: Unit 4 DSE 2: Units 2 & 5</p>
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Sd/
HoD
Political Science

COURSE (SYLLABUS) DISTRIBUTION
DEPT. OF GEOGRAPHY
2022 ODD SEMESTER

SEMESTER: - I (CBCS)

	Dr. Sangeeta Boruah Saikia	Mr. Narendra Kr. Das
Paper GGRG-101AT6:Disaster Management	<p>I. Disasters: Definition & Concepts: Hazards, Disasters; Risk and Vulnerability; Classification .</p> <p>II. Disasters In India (a) Flood : Causes, Impact, Distribution and Mapping; Landslide; Causes, Impact, Distribution and Mapping; Drought: Causes, Impact , Distribution and Mapping .</p>	<p>I. Disasters in India (b) Earthquake and Tsunami:Causes , Impact , Distribution and Mapping; Cyclone; Causes, Impact, Distribution and Mapping.</p> <p>II. Manmade Disasters: Causes, Impact, Distribution and Mapping.</p> <p>III. Response and Mitigation to Disasters : Mitigation and Preparedness, NDMA and NIDM; Indigenous knowledge and Community- Based Disaster Management ; Do's and Don'ts During and post Disasters.</p>

SEMESTER: - III (CBCS)

	Dr. Sangeeta Boruah Saikia	Mr.Narendra Kr. Das
Paper-GGRG-301AT6:CLIMATE CHANGE	<p>I. Science of Climate Change: Understanding Climate change; Green House gases and Global Warming ; Global Climatic Assessment-IPCC.</p> <p>II. Climate Change and Vulnerability : Physical Vulnerability; Economic Vulnerability; Social Vulnerability.</p>	<p>I. Impact of Climate Change: Agriculture and water ; Flora and Fauna; Human Health.</p> <p>II. Adaptation and Mitigation : Global Initiatives with Particular Reference to South Asia.</p> <p>III. National Action Plan on Climate Change ; Local Institution (Urban local Bodies Panchayats)</p>

S. Boruah

**Department of Physics
Digboi College
From July to December, 2022**

COURSE DISTRIBUTION		
B. SC. 1ST SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
CI	MATHEMATICAL PHYSICS I	RP + SKG
C II	MECHANICS	KK + SB
GE 1	MECHANICS	SB + NG
B. SC. 3RD SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C V	MATHEMATICAL PHYSICS II	RP
C VI	THERMAL PHYSICS	DKK+ SKG
C VII	DIGITAL SYSTEMS AND APPLICATIONS	KK
GE 3	THERMAL PHYSICS AND STATISTICAL MECHANICS	DKK + SKG
B. SC. 5TH SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C-XI	QUANTUM MECHANICS AND APPLICATIONS	DKK
C-XII	SOLID STATE PHYSICS	SB
DSE-1	CLASSICAL DYNAMICS	SKG
DSE-2	PHYSICS OF DEVICES AND INSTRUMENTS ASTRONOMY AND ASTROPHYSICS	KK RP
M. SC. 1ST SEMESTER (CBCS, New Syllabus)		
Paper Code	TITLE	Name of Faculty
PH C-I	MATHEMATICAL PHYSICS	RP
PH C-II	CLASSICAL MECHANICS	SKG
PH C-III	QUANTUM MECHANICS-I	DKK
DSC IA	ELECTRONICS	KK
AEC I (IIA)	NANO-STRUCTURED MATERIALS	SB
M. SC. 3RD SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
PH C-VII	ELECTRONICS	KK
PH C-VIII	ELECTRODYNAMICS	DKK
PH C-IX	COMPUTATIONAL METHODS	RP
PH DSC-III	CONDENSED MATTER PHYSICS	SB
GE II (GE 305)	GREEN AND SUSTAINABLE CHEMISTRY	AM
AEC II	METEOROLOGY	RP

* Dr. Abhijit Mahanta (AM) (Dept. of Chemistry, Digboi College)

Weekly total class assigned to teachers:

- | | |
|------------------------------|---------------------------|
| 1. Dr. R. Patowary (RP): 15 | 2. Dr. K. Konwar (KK): 14 |
| 3. Dr. D. Kr. Kuri (DKK): 14 | 4. Dr. S. Bhuyan (SB): 11 |
| 5. Miss Neha Gupta (NG): | |

Course Distribution::

Dept. of Mathematics, Digboi College, Session 2022-23:: ODD Sems w.e.f. 16.08.2022

Class	Subject	Teacher	M	Class	Units	Teacher	M
SC/A /Com	Unit-II: Sequences & Series	MB	7	Sc/A /Com	Unit-II: Inverse Trigonometric Funct.	BC/BC	4
	Unit-II: Permutation Combination, Binomial Theorem	AM	14		Unit-III: Matrices	JL/AM	7
	Unit-IV: Calculus	BC/AC	6		Unit-IV: Determinant	JL/AM	6
	Unit-VI: Statistics and Probability	BC/AC	12		Unit-V: Continuity & Differentiability	MB/MB	10
	Unit-I: Trigonometry	MB/AM	12		Unit-VI: Application of Derivative	MB/MB	6
	Unit-III: Coordinate geometry 2D&3D	AM	13		Unit-VII: Integration	AN/MB	14
	Unit-II: Mathematical induction, Linear inequalities	AM	9		Unit-VIII: Application of Integral Unit-IX: Differential Equation	AM/AM JL/BC	6 8
	Unit-II: Complex Nos. and Quadratic Equation	BC/AC	7		Unit-X,XI,XII: Vector Algebra, 3D and Linear Programming	AC/AC	23
	Unit-V: Mathematical reasoning	AM	3		Unit-XIII: Probability	BC/BC	10
SEM I (H)	COURSE CODE:C1(Calculus)			SEM I (GE)	COURSE CODE:GE1(Diff. Calculus)		
	UNIT-1 To UNIT-4	JL	60		(A) UNIT-1	AM	30
	PRACTICAL	JL	20		(B) UNIT-2	AM	20
	COURSE CODE:C2(Algebra)				(C) UNIT-3	BC	30
	UNIT-1 & UNIT-2	AC	35				
	UNIT-3 & UNIT-4	BC	45				
SEM III(H)	COURSE CODE:C5 (Th. of Real func.)			SEM III(GE)	COURSE CODE:-GE3(Real Analysis)		
	UNIT-1 TO UNIT-3	AC	80		UNIT-1	AM	20
					UNIT-2	AM	20
	COURSE CODE:C6(Group Theory I)				UNIT-3	BC	20
	UNIT-1 TO UNIT-5	MB	80		UNIT-4	BC	20
	COURSE CODE:C7(PDE and System of ODE)						
	UNIT-1 TO UNIT-4	JL	60				
	PRACTICAL	JL	20				

1. DR. JATINDRA LAHKAR(JL)
2. MR. MUKUL BURAGOHAIN(MB)
3. DR. BINOD CHETRY(BC)
4. DR. ARJUN SINGH CHETRY(AC)
5. MISS. ANINDITA MAHANTA(AM)

Dr. J. Lahkar
HoD, Maths

DEPARTMENT OF ASSAMESE DIGBOI COLLEGE, DIGBOI

SYLLAUS DISTREBUTION, 2022-23 (ODD SEMESTER)

1st, 3rd and 5th semester (from June, 2022 to Dec, 2023)

1st semester

Paper code	Course title	unit	Name of the Teacher
C1	History of Assamese Literature (From the Beginning to Post Sankardeva Period)	01	Dr. Mrinal kr. Gogoi
		02	Deepa Sarmah Borthakur
		03	Dr. Lakshmi Devi
		04	Achyut Saikia
		05	Simanta Bordoloi

Paper code	Course title	unit	Name of the Teacher
C2	History of Assamese Literature (From the Arunudoy to Post war Period)	01	Achyut Saikia
		02	Simanta Bordoloi
		03	Dr. Lakshmi Devi
		04	Deepa Sarmah Borthakur
		05	Dr. Mrinal kr. Gogoi

Paper code	Course title	unit	Name of the Teacher
AECC	Communicative Assamese	01	Simanta Bordoloi
		02	Dr. Mrinal kr. Gogoi

3rd Semester

Paper code	Course title	unit	Name of the Teacher
C5	Literary Criticism	01	Simanta Bordoloi
		02	Dr. Mrinal kr. Gogoi
		03	Simanta Bordoloi
		04	Achyut Saikia

DEPARTMENT OF ASSAMESE DIGBOI COLLEGE, DIGBOI

Paper code	Course title	unit	Name of the Teacher
C6	Selection from Assamese poetry	01	Achyut Saikia
		02	Deepa Sarmah Borthakur
		03	Deepa Sarmah Borthakur
		04	Simanta Bordoloi
		05	Dr. Mrinal kr. Gogoi

Paper code	Course title	unit	Name of the Teacher
C7	Studies on the Culture of Assam	01	Deepa Sarmah Borthakur
		02	Dr. Mrinal kr. Gogoi
		03	Deepa Sarmah Borthakur
		04	Dr. Lakshmi Devi

5th Semester

Paper code	Course title	Unit	Name of the Teacher
C11	Assamese Drama	01	Simanta Bordoloi
		02	Deepa Sarma Borthakur
		03	Deepa Sarma Borthakur
		04	Simanta Bordoloi

Paper code	Course title	Unit	Name of the Teacher
C12	Studies on Assamese Linguistics	01	Dr. Mrinal kr. Gogoi
		02	
		03	
		04	
		05	

Paper code	Course title	Unit	Name of the Teacher
DSE-1	Assamese Grammar, Lexicon and Idiomatic Usages	01	Dr. Lakshmi Devi
		02	
		03	
		04	
		05	

DEPARTMENT OF ASSAMESE DIGBOI COLLEGE, DIGBOI

Paper code	Course title	Unit	Name of the Teacher
DSE-2	Introduction to Indian Literature	01	Achyut Saikia
		02	
		03	
		04	
		05	

Course Distribution
Department of Bengali
Digboi College, Digboi.
Odd Semester- July-December, 2022

Faculty Name	semester	Course	Paper to Teach	Marks
Mr. Dipesh Mandal	1 st SEM	AEC-1	Unit: 2&3	40
	1 st SEM	GE -1	Unit: 2& 4	40
	1 st SEM	Minor	Unit: 2& 4	40
	3 rd SEM	GE -3	Unit: 1	40
Dr. Kanai Das	1 ST SEM	AEC-1	Unit: 1&4	40
	1 st SEM	GE -1	Unit: 1& 3	40
	1 st SEM	Minor	Unit: 1&3	40
	3 rd SEM	GE-3	Unit: 2	40



01/08/2023

(Dipesh Mandal)
Signature
Head of Department
Department of Bengali.

Course Distribution
2022 (JULY - DEC)

1st Semester (CBCS)

Economics Core

Course Code: ECNHC101

Course Title: Introductory Microeconomics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Exploring the subject matter of Economics:	MM Gogoi
12	Unit 2: Supply and Demand: How Markets Work, Markets and Welfare:	MM Gogoi
12	Unit III: The Household Behaviour and Consumer's Choice:	MM Gogoi
10	Unit IV: The Firm and Perfect Market Structure	Subhashish Gogoi
12	Unit V: Input Markets	Subhashish Gogoi

1st Semester

Economics Core (CBCS)

Course Code: ECNHC102

Course Title: Mathematical Methods for Economics-I

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Preliminaries	Dr. M.Sharma
12	Unit 2: Functions of one real variable	Dr. M.Sharma
12	Unit III: Derivative for Functions of One Variable	Dr. M.Sharma
10	Unit IV: Integration of functions	Karuna Phukan
12	Unit V: Differential Equations:	Karuna Phukan

3rd Semester
Economics Major(CBCS)

Course Code: ECNHC301

Course Title: Essentials of Microeconomics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Consumer Theory I	Dr. Mamoni Sharma
12	Unit 2: Consumer Theory II	Dr. Mamoni Sharma
12	Unit III: Production Theory	Dr. Mamoni Sharma
10	Unit IV: Cost Functions	Subhashish Gogoi
12	Unit V: Perfect Competition	Subhashish Gogoi

3rd Semester
Economics Major

Course Code: ECNHC302 (CBCS)

Course Title: Essentials of Macroeconomics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Consumption Function:	MM Gogoi
12	Unit 2: Investment function:	MM Gogoi
12	Unit III: Inflation and Unemployment:	MM Gogoi
10	Unit IV: Macroeconomics of an Open Economy -I:	Suraj Hajong
12	Unit V: Macroeconomics of an Open Economy -II:	Suraj Hajong

3rd Semester
Economics Major(CBCS)

Course Code: ECNHC303

Course Title: Statistical Methods for Economics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Descriptive Statistics:	Karuna Phukan
12	Unit 2: Elementary Probability Theory:	Karuna Phukan
12	Unit III: Random Variables and Probability Distributions:	Karuna Phukan
10	Unit IV: Sampling:	Karuna Phukan
12	Unit V: Correlation and Regression Analysis:	Karuna Phukan

5th Semester

Economics Major(CBCS)

Course Code: ECNHC501

Course Title: Indian Economy- I

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Economic Development since Independence	Subhashish Gogoi
12	Unit 2: Population and Human Development	Karuan Phukan
12	Unit III: Growth and Distribution	Karuan Phukan
10	Unit IV: International Comparisons	Subhashish Gogoi

5th Semester

Economics Major(CBCS)

Course Code: ECNHC502

Course Title: Development Economics - I

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Concepts of Development:	Subhashish Gogoi
12	Unit 2: Strategies of Development	Karuan Phukan
12	Unit III:	Karuan Phukan

	Growth Models	
10	Unit IV: Poverty and Inequality:	Subhashish Gogoi
12	Unit V: Political Institutions and the Functioning of the State	Subhashish Gogoi

5th Semester

Economics Major(CBCS)

Course Code: ECNHDSE505 (DSE-5)

Course Title: Money and Financial Markets

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Money	MM Gogoi
12	Unit 2: Financial Institutions, Markets, Instruments and Financial Innovations	MM Gogoi
12	Unit III: Stock Market	MM Gogoi
10	Unit IV: Interest Rates	MM Gogoi
12	Unit V: Banking System	MM Gogoi

5th Semester

Economics Major(CBCS)

Course Code: ECNHDSE506 (DSE-6)

Course Title: Public Economics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Fiscal functions:	Dr Mamini Sharma
12	Unit 2: Public Goods	Dr Mamini Sharma
12	Unit III: Externalities	Dr Mamini Sharma
10	Unit IV: Public Revenue	Dr Mamini Sharma
12	Unit V: Indian Public Finance	Dr Mamini Sharma

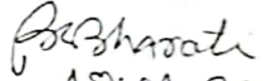
Course Distribution for the Session (June – December) 2022, Department of Hindi, Digboi College, Digboi.

COURSE / UNIT	Dr. P K BHARATI	Dr. (Mrs.) A K SAHU
H.S.-I- MIL	Unit-I Apathit Bodh, Unit -III Gadya Khand & Vitan -1,	Unit -III Kavya Khand, Unit -II Rachanatmak Lekhan, Unit -IV-Moukhik Prikshan
H.S.-II –MIL	Unit -I Apathit Bodh, Unit -III Kavya Khand,	Unit -II Rachanatmak Lekhan or Jansanchar, Unit -III Gadya Khand & Vitan-2,
Sem.- I MIL	Unit -I Prachin Kavya, Unit -II Aadhunik Kavya,	Unit –III Kahani, Unit -IV Nibandh
Sem.-I (Hons.) C-1	Unit -I & Unit -II Hindi Sahitya ka Itihas (Bhakti Kaal	Unit -I Aadikaal, Unit –IV Ritikal
Sem.-I (Hons.) C-2	Unit –III & IV Hindi Gadya Ka Vikas Ewam Hindi Gadya ki Anya Vidhayen	Unit -I & Unit II Hindi Sahitya Ka Itihas (Aahunik Kal)
Sem.-III(Hons.) C-5	Unit -I & Unit –II Chhayavaadottar Kavita	Unit -III & Unit –IV Chhayavaadottar Kavita
Sem.- III(Hons.) C-6	Unit -I & Unit –II Bharatiya Kavyashastra	Unit -III & Unit –IV Bharatiya Kavyashastra
Sem.- III(Hons.) C-7	Unit -III & Unit –IV Paschaatya Kavyashatra Ewam Nai Samiksha	Unit -I & Unit –II Paschaatya Kavyashatra Ewam Nai Samiksha
Sem.-V (Hons) C-11	Unit -III & Unit –IV Hindi Natak Ewam Ekanki	Unit -I & Unit –II Hindi Natak Ewam Ekanki
Sem.-V (Hons.) C-12	Unit -I & Unit –II Hindi Nibandh Ewam Anya Gadya Vidhayen	Unit -III & Unit –IV Hindi Nibandh Ewam Anya Gadya Vidhayen
Sem.-V (Hons.)DSE-1	Unit -I & Unit –II Asamiya Bhasha Ewam Sahitya	Unit -III & Unit –IV Asamiya Bhasha Ewam Sahitya
Sem.-V (Hons.)DSE-2	Unit -II & Unit –III Chhayavaad	Unit -I & Unit –IV Chhayavaad

P. K. Bharati
20.08.2022
HOD (HINDI)
DIGBOI COLLEGE, DIGBOI

Syllabus Distribution for the Session (Jan– May) 2023, Department of Hindi, Digboi College, Digboi.

COURSE / UNIT	Dr. PRADEEP KUMAR BHARATI	Dr. (Mrs.) ANURADHA KUMARI SAHU
H.S.-I- MIL	Unit-I Apathit Bodh, Unit -III Gadya Khand & Vitan -1 .	Unit -III Kavya Khand, Unit -II Rachanatmak Lekhan, Unit -IV-Moukhik Prikshan .
H.S.-II -MIL	Unit -I Apathit Bodh, Unit -III Kavya Khand.	Unit -II Rachanatmak Lekhan or Jansanchar, Unit -III Gadya Khand & Vitan-2 .
Sem.-I (Hons.) C-3	Unit -I & Unit -II Vidyapati, Meerabai, Raskhan & Kabir, Jayasi.	Unit -III & Unit -IV Soordas, Tulasidas & Ghananand, Bihari, Raheem.
Sem.-I (Hons.) C-4	Unit -I & Unit -II Aadhunik Hindi Kavita (Chhayaavaad Tak)	Unit -III & Unit -IV Aadhunik Hindi Kavita (Chhayaavaad Tak)
Sem.-I V (Hons.) C-8	Unit -III & Unit -IV Bhasha Vigyan aur Hindi Bhasha	Unit -I & Unit -II Bhasha Vigyan aur Hindi Bhasha
Sem.-I V (Hons.) C-9	Unit -II & Unit -IV Hindi Upanyas (Tyagapatra & Mahabhoj)	Unit -I & Unit -III Hindi Upanyas (Gaban & Maanas Ka Hans)
Sem.-I V (Hons.) C-10	Unit -I & Unit -II Hindi Kahani	Unit -III & Unit -IV Hindi Kahani
Sem.-VI (Hons.) C-13	Unit -I & II Sahityik Patrakarita .	Unit -III & Unit -IV Swatantrrottar & Samkaleen Patrakarita .
Sem.-VI (Hons.) C-14	Unit -III & Unit -IV Sarkari Patrachar & Hindi Bhasha..... .	Unit -I & II Prayojanmoolak Hindi & Hindi ka Prayog Kshetra .
Sem.-VI (Hons.) DSE-3	Unit -III & Unit -IV Kavitali, Geetawali & Vinaypatrika .	Unit -I & II Tulasidas Parichay & Ayodhyakand .
Sem.-VI (Hons.) DSE-4	Unit -III & Unit -IV Sahitya Ka Uddeshya & Premchand Ki Kahaniyan .	Unit -I & II Sevasadan (Upanyas) & Karbala (Natak).


 18.01.2023
 HOD (HINDI)
 DIGBOI COLLEGE, DIGBOI

MSc Life Science Botany ,2nd batch,2022

FIRST SEMESTER COURSE DISTRIBUTION

Name of Teacher	Paper Code	Units
Dr.T.C.Dutts	LSD 106E	Units-3,4,5,6,Practs
D.M.Das	LSD106 F	Units-1,2,3,4,5,6 Paper,Practs
Dr.Dimpy Das	LSC102	Unit-4,5,6 & Lab Course,Practs
S.Triwari	LSE108/LSC A103	LSE108-Unit- 1,2,3 /103-Units-1,2, and 5,6,Practs
S.Talukder	LSD106/LSC103	106:Unit-1 ,2 and practicals
M.Kalita		103 Unit-3

HOD,Botany

DEPARTMENT OF BOTANY

M.SC. 3RD SEMESTER COURSE DISTRIBUTION,2022

SL.No.	Name of Teacher	Course/ Units
1	Dr. T.C.Dutta	DSE306B(E)Molecular Genetics,Units-1,2,4,Practs.
2	D.M.Das	301 B mycology and Plant Pathology, Unit: 1,2,3,4& Practicals
3	Dr.Dimpi Das	303Bpteridophytes and Gymnosperms,Units1,2,3,Practs.
4	Swapna Triwari	DSE306B(F), Molecular Microbiology, Unit:3,5,6, &Practs.
5	Sadhana Talukder	302B Algae , Unit:1,2,3, Practicals
6	M.Kalita	302B BryophytesUnits-4, and Practicals,303B, Unit-4 301,Unit-4

HOD, Botany

DEPARTMENT OF BOTANY

Course distribution for the odd semester (July to December), 2022

Name of Teacher	SEM.	Honours Course	SEM	Generic Elective
C. Dutta	1 st	C2, Unit-4,5,6,7 & related Practicals	1 st	Unit-2&5, Practicals
	3 rd	C7, Genetics-Whole Paper & Practicals	3 rd	Unit-1 And Related Practs
	5 th	C11-Reproductive Biology of Engiosperms And Related Practicals.		
S. M. Das	1 st	C3, Unit-5,6,7 related practicals.	1 st	Unit-1.
	3 rd	C5-Anatomy of Angiosperms unit-1,2,3,4 and Practicals.	3rd	Unit-3
	5 th	DSE-4 Industrial and Environmental Microbiology Whole paper and Pract.		
Dr Dimpay Das	1 st	C2, Unit-1,2,3 & related Practicals.	1 st	Units-6, Practicals
	3 rd	C6 Whole paper and Related Pract.	3 rd	Unit-5,6 And Related Practs.
	5 th	DSE-3 Research Methodology and Practs.		
S. Triwari	1 st	C1-Unit-1,2, Related practicals.	1 st	Unit-4 Gymnosperms& Related Practicals.
	3 rd	C5, Unit-5 and Practicals.	3 rd	Unit-7,8.& Practicals
	5 th	C12-Plant Physiology, Whole paper and Practicals.		
S. Talukder			1st	Unit-7
			3rd	Unit-2,4 And Practs
M. Khalita	1st	C1-Units-3&4, Practicals	1 st	Units 2, 3,5,8 & Practicals
		C2-Units-4,7 and Practicals	3rd	Units-7

HOD, Botany

DEPARTMENT OF PHILOSOPHY

COURSE DISTRIBUTION

(Session: 2022-2023)

1. **Mr. B.R NARZARY:** I SEM. (H) C1 – FULL PAPER
III SEM. (H) C7 – FULL PAPER
V SEM. (H) DSE II – FULL PAPER
V SEM. (H) C12 – UNIT: I & IV
H.S I, UNIT: V, VI, & VII
H.S II, UNIT: IV, VII & VIII

2. **Dr. R. SARMAH :** I SEM. (H) C2 – FULL PAPER
III SEM. (H) C6 – FULL PAPER
V SEM. (H) DSE I – FULL PAPER
V SEM (H) C12 – Unit: III & IV
H.S I, Unit: I, III & VIII
H.S II, Unit: III, v & VI

3. **Gitali Deka:** I SEM. (GE), -- FULL PAPER
III SEM. (H), C5 – FULL PAPER
V SEM. (H), C11 – FULL PAPER
V SEM. (H), Unit: II
H.S I, Unit: II, III & IV
H.S II, Unit: I, II

DEPARTMENT OF HISTORY (COURSE DISTRIBUTION)

SESSION- August , 2022

SEMESTER I

COURSE: HISGE1 HISTORY OF ASSAM 1228-1826

P.K.Narah: Unit I – Unit III(3.02)

A.Neog : Unit III(3.03) – Unit V

SEMESTER III

COURSE:HISGE 3 HISTORY OF INDIA 1526-1947

P.K.Narah: Unit I – Unit III(3.01)

A.Neog : Unit III(3.02) – Unit V



DIGBOI COLLEGE, DIGBOI

COURSE DISTRIBUTION

SESSION: 2022-23

Even Semester

DEPARTMENT OF EDUCATION**COURSE DISTRIBUTION****EVEN SEMESTERS, JANUARY 2023 TO JUNE 2023**

UNITS	NAME OF THE PAPERS	NAME OF THE TEACHER	PAPER/ UNIT TAKEN
SEM-II	PSYCHOLOGICAL FOUNDATIONS OF EDUCATION	DR. POBAN GOGOI	UNIT: I & III
		PRADIP DUTTA	UNIT: II
		SNEHA GOGOI	UNIT: IV
	EDUCATIONAL ADMINISTRATION AND MANAGEMENT	DR. POBAN GOGOI	UNIT: I & III
		PRADIP DUTTA	UNIT: II & V
		SNEHA GOGOI	UNIT: IV & V
SEM -IV	EDUCATION IN PRE-INDEPENDENT INDIA	DR. POBAN GOGOI	ALL UNITS
	TECHNIQUES OF TEACHING (402) & TECHNIQUES OF TEACHING (4020)	SNEHA GOGOI	ALL UNITS
	EDUCATIONAL TECHNOLOGY	PRADIP DUTTA	ALL UNITS
SEM- VI	EMERGING TRENDS IN INDIAN EDUCATION	DR. POBAN GOGOI	ALL UNITS
	GENDER & EDUCATION	PRADIP DUTTA	ALL UNITS
	CHILD & ADOLESCENT PSYCHOLOGY	SNEHA GOGOI	ALL UNITS
	PROJECT REPORT	SNEHA GOGOI	ALL UNITS

Sd/
HoD of Education
Digboi College

Department of Physics
Digboi College
COURSE DISTRIBUTION
From January to June, 2023 (Even Semester)

COURSE DISTRIBUTION		
B. SC. 2ND SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C III	ELECTRICITY AND MAGNETISM	KK + DKK
C IV	WAVES AND OPTICS	RP + SB
GE 2	ELECTRICITY AND MAGNETISM	KK + DKK
B. SC. 4TH SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C VIII	MATHEMATICAL PHYSICS III	RP + SKG
C IX	ELEMENTS OF MODERN PHYSICS	DKK
C X	ANALOG SYSTEMS AND APPLICATIONS	KK
GE 4	WAVES AND OPTICS	SB + NG
B. SC. 6TH SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C-XIII	ELECTRO-MAGNETIC THEORY	DKK
C-XIV	STATISTICAL MECHANICS	SKG
DSE-3	NUCLEAR AND PARTICLE PHYSICS	RP
DSE-4	NANO MATERIALS AND APPLICATION	KK
M. SC. 2ND SEMESTER (CBCS, New Course, 2022 onwards)		
Paper Code	TITLE	Name of Faculty
PH C-IV	QUANTUM MECHANICS-II	DKK
PH C-V	CONDENSED MATTER PHYSICS	SB
PH C-VI	GENERAL LAB-I	KK+NG
PH DSE II	B. NUMERICAL METHODS AND PROGRAMMING	RP + SKG
GE I	MARKETING	SMB
M. SC. 4TH SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C-X	NUCLEAR PHYSICS	RP
C-XI	STATISTICAL MECHANICS	SKG
C-XII	ATOMIC & MOLECULAR PHYSICS	DKK
DSE IV	B. CONDENSED MATTER PHYSICS II C. DIGITAL AND OPTICAL ELECTRONICS	SB KK
DSE V	B. CONDENSED MATTER PHYSICS LAB C. ELECTRONICS LAB	SB +NG KK

* Dr. Samrat Bharadwaj (SMB) (Dept. of Commerce, Digboi College)

Weekly total class assigned to teachers:

- | | |
|----------------------------------|----------------------------------|
| 1. Dr. R. Patowary (RP): 24 | 2. Dr. K. Konwar (KK): 27 |
| 3. Dr. D. Kr. Kuri (DKK): 28 | 4. Dr. Sanat Kr. Gogoi (SKG): 21 |
| 5. Dr. S. Bhuyan (SB): 18 | 6. Miss Neha Gupta (NG): 16 |
| 7. Dr Samrat Bharadwaj (SMB): 03 | |

DEPARTMENT OF ASSAMESE DIGBOI COLLEGE, DIGBOI**SYLLAUS DISTREBUTION, 2022-23 (EVEN SEMESTER)****2nd, 4th and 6th semester (from Jan, 2023 to June, 2023)****2nd semester**

Paper code	Course title	unit	Name of the Teacher
C3	Introduction to Linguistics	01	Deepa Sarmah Borthakur
		02	Deepa Sarmah Borthakur
		03	Dr. Lakshmi Devi
		04	Dr. Lakshmi Devi
		05	Deepa Sarmah Borthakur & Dr. Lakshmi Devi

Paper code	Course title	unit	Name of the Teacher
C4	Poetics	01	Achyut Saikia
		02	Achyut Saikia & Simanta Bordoloi
		03	Dr. Mrinal kr. Gogoi
		04	Dr. Mrinal kr. Gogoi
		05	Dr. Mrinal kr. Gogoi

4th semester

Paper code	Course title	unit	Name of the Teacher
C8	Theory and Practice of Comparative Literature	01	Achyut Saikia
		02	
		03	
		04	
		05	

Paper code	Course title	unit	Name of the Teacher
C9	Indo-Aryan Languages and Assamese	01	Deepa Sarmah Borthakur
		02	Deepa Sarma Borthakur
		03	Dr. Lakshmi Devi
		04	Dr. Lakshmi Devi

DEPARTMENT OF ASSAMESE DIGBOI COLLEGE, DIGBOI

Paper code	Course title	unit	Name of the Teacher
C10	Selection from Assamese Prose	01	Dr. Mrinal kr. Gogoi
		02	Simanta Bordoloi
		03	
		04	
		05	Dr. Mrinal kr. Gogoi

6th semester

Paper code	Course title	unit	Name of the Teacher
C-13	Selection from Assamese Prose	01	Simanta Bordoloi
		02	Achyut Saikia, Dr. Mrinal Kr. Gogoi
		03	Simanta Bordoloi
		04	
		05	

Paper code	Course title	unit	Name of the Teacher
C14	Language and Script of Assam	01	Deepa Sarmah Borthakur
		02	Dr. Lakshmi Devi
		03	Deepa Sarmah Borthakur
		04	Deepa Sarmah Borthakur
		05	Dr. Lakshmi Devi

Paper code	Course title	Unit	Name of the Teacher
DSE-3	Introduction to World Literature	01	Achyut Saikia
		02	Dr. Lakshmi Devi
		03	Achyut Saikia
		04	Achyut Saikia
		05	Dr. Lakshmi Devi

Paper code	Course title	unit	Name of the Teacher
DSE-4	Special Author	01	Dr. Mrinal kr. Gogoi

COURSE DISTRIBUTION (EVEN-SEMESTER) COMMERCE

2023 (JANUARY-JUNE)

SL. NO.	NAME OF THE FACULTY	SUBJECTS	SEMESTER
1	Pradip Chandra Das	ACCOUNTANCY-I	HS-I
		CORPORATE ACCOUNTING	II
		COST ACCOUNTING	IV
		AUDITING	VI
		FINANCIAL STATEMENT ANALYSIS	VI
		SECURITY ANALYSIS & PORTFOLIO MGT	VI
		GST	VI
2	DR. DEBORSHEE GOGOI	BUSINESS STUDIES-I	HS-I
		CORPORATE LAW	II
		ENVIRONMENTAL STUDIES	II
		ENTREPRENEURSHIP DEVELOPMENT-II	IV
		COMPUTER APPLICATION IN BUSINESS	IV
		ADVERTISING MANAGEMENT	VI
		SERVICE MARKETING	VI
3	MURCHANA GOGOI	ACCOUNTANCY-I	HS-I
		CORPORATE ACCOUNTING	II
		COST ACCOUNTING	IV
		AUDITING	VI
		FINANCIAL STATEMENT ANALYSIS	VI
		SECURITY ANALYSIS & PORTFOLIO MGT	VI
		GST	VI
4	DR. SAMRAT BHARADWAJ	BUSINESS STUDIES-I	HS-I
		CORPORATE LAW	II
		ENVIRONMENTAL STUDIES	II
		ENTREPRENEURSHIP DEVELOPMENT-II	IV
		COMPUTER APPLICATION IN BUSINESS	IV
		ADVERTISING MANAGEMENT	VI
		SERVICE MARKETING	VI
		MARKETING	M.SC
		ACTING	ADD-ON
5	DR. SUBHADEEP CHAKRABORTY	BUSINESS STUDIES-I	HS-I
		CORPORATE LAW	II
		ENVIRONMENTAL STUDIES	II
		ENTREPRENEURSHIP DEVELOPMENT-II	IV
		COMPUTER APPLICATION IN BUSINESS	IV
		ADVERTISING MANAGEMENT	VI
		SERVICE MARKETING	VI
6	RAKTUTPAL BARUAH	ACCOUNTANCY-I	HS-I
		CORPORATE ACCOUNTING	II
		COST ACCOUNTING	IV
		AUDITING	VI
		FINANCIAL STATEMENT ANALYSIS	VI
		SECURITY ANALYSIS & PORTFOLIO MGT	VI
		GST	VI

Course Distribution::

Dept. of Mathematics, Digboi College, Session 2023-24:: EVEN Sems w.e.f 01.01.2023

Class	Subject	Teacher	M	Class	Units	Teacher	M
SEM II (H)	COURSE CODE:C3(Real Analysis)			SEM II (C)	COURSE CODE:GE2(Diff. Equation)		
	UNIT-1	AC	30		(A) UNIT-1	AM	16
	UNIT-2	AC	30		(B) UNIT-2	AM	20
	UNIT-3	AC	20		(C) UNIT-3	AM	16
	COURSE CODE:C4(Diff. Equation)				(D) UNIT-4	BC	16
	UNIT-1 TO UNIT-4	JL	60		(E) UNIT-5	BC	12
	PRACTICAL	JL	20				
SEM IV(H)	COURSE CODE:C8 (Numerical Meth.)			SEM IV(GE)	COURSE CODE:-GE4(Algebra)		
	UNIT-1 TO UNIT-6	AM	60		UNIT-1	MB	28
	PRACTICAL	AM	20		UNIT-2	AC	28
	COURSE CODE:C9(Rieman Inte. etal)				UNIT-3	MB	24
	UNIT-1	BC	5				
	UNIT-2	BC	25	Business Mathematics			
	UNIT-3	BC	10	UNIT-1	AM	14	
	UNIT-4 & UNIT-5	BC	40	UNIT-2	MB	14	
	COURSE CODE: C10 (Ring Th. & Lin. Al.)			UNIT-3	BC	14	
	UNIT-1	MB	20	UNIT-4	MB	14	
	UNIT-2	MB	15	UNIT-5	AC	14	
	UNIT-3	AC	15				
	UNIT-4	AC	30				
	SEM VI(H)	COURSE CODE:C13					
Metric Spaces		AC	35				
Complex Analysis		AM	45				
COURSE CODE:C14							
Ring Theory		MB	30				
Linar Algebra		MB	50				
COURSE CODE:DSE-3.2							
Hydro Mechanics		JL	80				
COURSE CODE:DSE-4.1							
Mathematical Methods		BC	80				

1. DR. JATINDRA LAHKAR(JL)
2. MR. MUKUL BURAGOHAİN(MB)
3. DR. BINOD CHETRY(BC)
4. DR. ARJUN SINGH CHETRY(AC)
5. MS. ANINDITA MAHANTA(AM)

Dr. J. Lahkar
HoD, Maths

Course Distribution (January – June, 2023)

2nd Semester

Economics Major (CBCS)

Course Code: ECNHC201

Course Title: Introductory Macroeconomics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Introduction to Macroeconomics:	Subhashish Gogoi
12	Unit 2: Measurement of GDP:	Subhashish Gogoi
12	Unit III: Demand for and Supply of Money:	Suraj Hajong
10	Unit IV: Inflation:	Suraj Hajong
12	Unit V: Theory of Determination of Income and Employment:	Suraj Hajong

2nd Semester

Economics Major(CBCS)

Course Code: ECNHC202

Course Title: Mathematical Methods for Economics - II

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Difference equation:	Dr. Mamoni Sharma
12	Unit 2: Linear Algebra (Matrices and Determinants):	Dr. Mamoni Sharma
12	Unit III: Derivatives of Functions of several variables:	Dr. Mamoni Sharma
10	Unit IV: Unconstrained optimization :	Dr. Mamoni Sharma
12	Unit V: Constrained optimization with equality constraints:	Dr. Mamoni Sharma

4th Semester
Economics Major(CBCS)
 Course Code: ECNHC401
 Course Title: Advanced Microeconomics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: General Equilibrium, Efficiency and Welfare	Subhashish Gogoi
12	Unit 2: Monopoly	Subhashish Gogoi
12	Unit III: Oligopoly	Subhashish Gogoi
10	Unit IV: Game theory and Competitive Strategy	Subhashish Gogoi
12	Unit V: Market Failure	Subhashish Gogoi

4th Semester
Economics Major(CBCS)
 Course Code: ECNHC402
 Course Title: Advanced Macroeconomics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Microeconomic Foundations of Macroeconomics	Suraj Hajong
12	Unit 2: Economic Growth – I:	MM Gogoi
12	Unit III: Economic Growth – II:	MM Gogoi
10	Unit IV: Fiscal and Monetary Policy	MM Gogoi
12	Unit V: Schools of Macroeconomic Thoughts	Suraj Hajong

4th Semester
Economics Major(CBCS)
 Course Code: ECNHC403
 Course Title: Introductory Econometrics

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Nature and Scope of Econometrics and Basic Statistical Prerequisite	Karuan Phukan
12	Unit 2: Simple Linear Regression Model:	Karuan Phukan
12	Unit III: Violations of Classical Assumptions: Consequences, Detection and Remedies	Karuan Phukan
10	Unit IV: Multicollinearity:	Karuan Phukan
12	Unit V: Specification Analysis	Karuan Phukan

6th Semester
Economics Major

PAPER 6.01 (DEVELOPMENT ECONOMICS WITH INDIAN PERSPECTIVE – II)

No of Class	Unit No and Title	Name of the teachers
8	Unit 1: Planning: Concept and Justification	Shubhashish Gogoi
10	Unit 2: Role of Agriculture in Economic Development	Shubhashish Gogoi
8	Unit III: Role of Industries in the Development Process	Shubhashish Gogoi
11	Unit IV: India in the Global Economy:	Suraj Hajong
7	Unit V: Economic Problems of North-East India	Suraj Hajong

6th Semester
Economics Major
PAPER 6.02 (ENVIRONMENTAL ECONOMICS)

No of Class	Unit No and Title	Name of the teachers
9	Unit 1: Basic Concepts: Ecology, Environment and Economy	Karuna Phukan
12	Unit 2: Market Failure: Concept and Common Sources of Market Failure	Karuna Phukan
11	Unit III: Solution to the Environmental problems	Karuna Phukan
10	Unit IV: Sustainable development	Karuna Phukan
8	Unit V: Global and Local Environmental Concerns	Karuna Phukan

6th Semester
Economics Major
PAPER 6.03 (INTERNATIONAL ECONOMICS)

No of Class	Unit No and Title	Name of the teachers
10	Unit 1: International Economics and Trade Theories	Suraj Hajong
8	Unit 2: Terms of Trade and Gains From Trade	Suraj Hajong
9	Unit III: International Trade Policy:	MM Gogoi
10	Unit IV: Foreign Exchange Markets and Exchange Rates	MM Gogoi
7	Unit V: Evolution of International Monetary System:	MM Gogoi

6th Semester
Economics Major
PAPER 6.04 (ECONOMIC ISSUES OF ASSAM)

No of Class	Unit No and Title	Name of the teachers
12	Unit 1: Economic Characteristics of Assam	MM Gogoi
10	Unit 2: Agriculture: Trends and Pattern of Production	MM Gogoi
9	Unit III: Industry: Problems and prospects of Industrial development of Assam	MM Gogoi
7	Unit IV: Infrastructure: Economic Infrastructure of the State	MM Gogoi
10	Unit V: Economic Problems of Assam	MM Gogoi

COURSE (SYLLABUS) DISTRIBUTION
DEPT. OF GEOGRAPHY
2023 EVEN SEMESTER

SEMESTER: - II (CBCS)

Paper -GE-2	SANGEETA BORUAH SAIKIA	NARENDRA KR. DAS
REGIONAL DEVELOPMENT	<p>i. Definition of Region, Evolution Types and need of Regional Planning: Formal Functional, and Planning Regions and Regional Development.</p> <p>ii. Regional Imbalances and Problems of Functional Regions.</p>	<p>i. Choice of Region for Planning : Characteristics of an Ideal Planning Region; Delineation of Planning Region; Regionalization of India for Planning (Agro Ecological Zones)</p> <p>ii. Strategies/ Models for Regional Planning: Growth Pole Model of Perroux; Growth Centre Model in Indian Context ; Village Cluster</p> <p>iii. Problem Regions and Regional Planning; Backward Regions and Regional Plans-Special Area Development Plans in India; DVC –The success story and the Failures.</p>

SEMESTER: - IV (CBCS)

Paper -GE-4	SANGEETA BORUAH SAIKIA	NARENDRA KR. DAS
INDUSTRIAL GEOGRAPHY	<p>1. Nature and scope of industrial Geography</p> <p>2. Types, Geographical characteristics and Location of Industries (Weber's Theory): Small and medium Industries, Heavy Industries: Coal and Iron based Industries, Rural based Industries, Footloose Industry.</p>	<p>1. Mega Industrial complexes: National Capital Region, Mumbai-Pune Industrial Region, Bengluru-Chennai Industrial Region and Chota Nagpur industrial Region</p> <p>2. Impact of Industrialization in India: Environmental; Social and Economic</p> <p>3. Industrial Policy of India</p>

S. S. Saini



DEPARTMENT OF ELECTRONICS
DIGBOI COLLEGE
Digboi - 786171
Tinsukia (Assam), India

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Ref:

Date: 17 ^{JAN} March, 2023

Course Distribution
Session: Jan 2023 – June 2023

Faculty Name	semester	Paper to Teach
Dr. Jayanta Handique	2 nd	C4 (Unit 3,4)
	4 th	C8 (All units), SEC-II (Unit 1, 2)
	6 th	C-13 (Unit 3, 4), C14 (Unit 3,4)
Dr. Nabadweep Chamuah	2 nd	C4 (Unit 1, 2)
	4 th	C9 (All units), SEC-II (Unit 3)
	6 th	DSE-3(All Units)
Mr. Ankit Chetry	2 nd	C3 (All Units)
	4 th	C10 (All Units), SEC-II (Unit 4)
	6 th	C-13(Unit 1,2), C14 (Unit 1, 2),

J. Handique

Head
Department of Electronics
Digboi College

HOD. ELECTRONICS
DIGBOI COLLEGE, DIGBOI

Course Distribution for the Session (June – December) 2022, Department of Hindi, Digboi College, Digboi.

COURSE / UNIT	Dr. P K BHARATI	Dr. (Mrs.) A K SAHU
H.S.-I- MIL	Unit-I Apathit Bodh, Unit -III Gadya Khand & Vitan -1,	Unit -III Kavya Khand, Unit -II Rachanatmak Lekhan, Unit -IV-Moukhik Prikshan
H.S.-II –MIL	Unit -I Apathit Bodh, Unit -III Kavya Khand,	Unit -II Rachanatmak Lekhan or Jansanchar, Unit -III Gadya Khand & Vitan-2,
Sem.- I MIL	Unit -I Prachin Kavya, Unit -II Aadhunik Kavya,	Unit –III Kahani, Unit -IV Nibandh
Sem.-I (Hons.) C-1	Unit -I & Unit -II Hindi Sahitya ka Itihas (Bhakti Kaal	Unit -I Aadikaal, Unit –IV Ritikal
Sem.-I (Hons.) C-2	Unit –III & IV Hindi Gadya Ka Vikas Ewam Hindi Gadya ki Anya Vidhayen	Unit -I & Unit II Hindi Sahitya Ka Itihas (Aahunik Kal)
Sem.-III(Hons.) C-5	Unit -I & Unit –II Chhayavaadottar Kavita	Unit -III & Unit –IV Chhayavaadottar Kavita
Sem.- III(Hons.) C-6	Unit -I & Unit –II Bharatiya Kavyashastra	Unit -III & Unit –IV Bharatiya Kavyashastra
Sem.- III(Hons.) C-7	Unit -III & Unit –IV Paschaatya Kavyashatra Ewam Nai Samiksha	Unit -I & Unit –II Paschaatya Kavyashatra Ewam Nai Samiksha
Sem.-V (Hons) C-11	Unit -III & Unit –IV Hindi Natak Ewam Ekanki	Unit -I & Unit –II Hindi Natak Ewam Ekanki
Sem.-V (Hons.) C-12	Unit -I & Unit –II Hindi Nibandh Ewam Anya Gadya Vidhayen	Unit -III & Unit –IV Hindi Nibandh Ewam Anya Gadya Vidhayen
Sem.-V (Hons.)DSE-1	Unit -I & Unit –II Asamiya Bhasha Ewam Sahitya	Unit -III & Unit –IV Asamiya Bhasha Ewam Sahitya
Sem.-V (Hons.)DSE-2	Unit -II & Unit –III Chhayavaad	Unit -I & Unit –IV Chhayavaad

A. Bharrate
20.08.2022
HOD (HINDI)
DIGBOI COLLEGE, DIGBOI

Syllabus Distribution for the Session (Jan– May) 2023, Department of Hindi, Digboi College, Digboi.

COURSE / UNIT	Dr. PRADEEP KUMAR BHARATI	Dr. (Mrs.) ANURADHA KUMARI SAHU
H.S.-I- MIL	Unit-I Apathit Bodh, Unit -III Gadya Khand & Vitan -1 .	Unit -III Kavya Khand, Unit -II Rachanatmak Lekhan, Unit -IV-Moukhik Prikshan .
H.S.-II -MIL	Unit -I Apathit Bodh, Unit -III Kavya Khand.	Unit -II Rachanatmak Lekhan or Jansanchar, Unit -III Gadya Khand & Vitan-2 .
Sem.-I (Hons.) C-3	Unit -I & Unit -II Vidyapati, Meerabai, Raskhan & Kabir, Jayasi.	Unit -III & Unit -IV Soordas, Tulasidas & Ghananand, Bihari, Raheem.
Sem.-I (Hons.) C-4	Unit -I & Unit -II Aadhunik Hindi Kavita (Chhayaavaad Tak)	Unit -III & Unit -IV Aadhunik Hindi Kavita (Chhayaavaad Tak)
Sem.-I V (Hons.) C-8	Unit -III & Unit -IV Bhasha Vigyan aur Hindi Bhasha	Unit -I & Unit -II Bhasha Vigyan aur Hindi Bhasha
Sem.-I V (Hons.) C-9	Unit -II & Unit -IV Hindi Upanyas (Tyagapatra & Mahabhoj)	Unit -I & Unit -III Hindi Upanyas (Gaban & Maanas Ka Hans)
Sem.-I V (Hons.) C-10	Unit -I & Unit -II Hindi Kahani	Unit -III & Unit -IV Hindi Kahani
Sem.-VI (Hons.) C-13	Unit -I & II Sahityik Patrakarita .	Unit -III & Unit -IV Swatantrrottar & Samkaleen Patrakarita .
Sem.-VI (Hons.) C-14	Unit -III & Unit -IV Sarkari Patrachar & Hindi Bhasha..... .	Unit -I & II Prayojanmoolak Hindi & Hindi ka Prayog Kshetra .
Sem.-VI (Hons.) DSE-3	Unit -III & Unit -IV Kavitali, Geetawali & Vinaypatrika .	Unit -I & II Tulasidas Parichay & Ayodhyakand .
Sem.-VI (Hons.) DSE-4	Unit -III & Unit -IV Sahitya Ka Uddeshya & Premchand Ki Kahaniyan .	Unit -I & II Sevasadan (Upanyas) & Karbala (Natak).

Pradeep Kumar Bharati
18.01.2023
HOD (HINDI)
DIGBOI COLLEGE, DIGBOI

DEPARTMENT OF BOTANY

COURSE DISTRIBUTION, 2023 EVEN SEMESTER (January to June, 2023)

Sl.No.	Name of teacher	Honours	Generic Elective
1	Dr.T.C.Dutta	11(H)BC204T: C-IV: Archegoniate, Unit-1,2,3 1V(H)BC408T: C-VIII: Molecular Biology: Practicals V1(H)BD605T:DSE-V:Plant Breeding,Practicals	GE-2T:GE-II: Plant physiology and Metabolism: Unit-1,2
2	D.M.Das	11(H)BC203T:C-III: Mycology and Phytopathology, Unit- 1,2,3,4,5 1V(H)BC409T:C-IX: Plant Ecology and Phytogeography, Unit- 1,2,3,4, 5,6,7: Practicals V1(H)BD606T: DSE-VI: Natural Resource Management, Practicals	GE-2T: Plant Physiology and Metabolism, Unit-3, GE-4T: Ecology and Plant Taxonomy Unit-1,2,3
3	Dr.Dimpy Das	11(H)BC204T:C-IV: Archegoniate, Unit-4,5,6& Practicals V1(H)BC614T:C-XIV: Plant Biotechnology & Practicals	GE-2T: Plant Physiology and Metabolism, Unit-8,9 GE-4T: Ecology and Plant Taxonomy Unit-5
4	Swapna Triwari	11(H)BC203TC-III: Mycology and phytopathology, Unit-6,7,8,9 Practicals 1V(H)BC409T:C-IX Plant Ecology and Phytogeography, Unit-8,9,10 Practicals	GE-2T: Plant Physiology and Metabolism, Unit-6,7 GE-4T: Ecology and Plant Taxonomy Unit-4,
5	Sadhana Talukder	1V(H)BC410T:C-X Plant Systematics, Unit-5,6 Practicals V1(H)BC613T:C-XIII Plant Metabolism, Unit-5,6,7,8,Practicals	GE-4T: Ecology and Plant Taxonomy Unit-11,12, All Practicals of the paper.
6	Mamita Kalita	1V(H)BC410T:C-X: Plant Systematics, Unit-1,2,3,4: Practicals V1(H)BC613T:C-XIII: Plant Metabolism, Unit-1,2,3,4,Practicals	GE-2T: Plant Physiology and Metabolism,Unit-4,5, All practicals of the Paper GE-4T: Ecology and Plant Taxonomy Unit-6,7,8,9,10

DEPARTMENT OF BOTANY

MSc Life Sciences, Session, 2023 (Jan to June)

2nd Semester Course Distribution

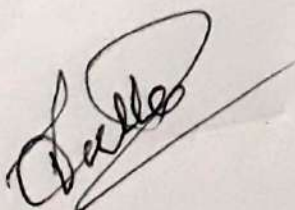
Name of Faculty	Paper Code and Name	Units
Dr. T.C.Dutta	LSD-206(E) Cytogenetics and Crop improvement	Whole paper and Practicals
D.M.Das	LSD-206(F) Microbiology	Whole Paper and Practicals
Dr.D.Das	LSC-203 Evolution	Unit-1,2,3 and LSC-205 Lab Course
S.Triwari	LSC-201 Environmental Biology and Microbiology LSC-204 Lab course	Section-B
Mamita Kalita	LSC-203 Taxonomy	Whole paper and Practicals
Sadhana Talukder	LSC-201 Environmental Biology and Microbiology	Section-A

DEPARTMENT OF BOTANY

MSc Life Sciences, Session, 2023 (Jan to June)

4th Semester Course Distribution

Name of Faculty	Paper code and Name	Units
Dr, T.C.Dutta	402, Development and reproduction	4
D.M.Das	402/Development and Reproduction in angiosperms.	1,2,3, and Practicals
Dr.D.Das	406E Projects/403-Plant physiology	4
S.Triwari	406F/Project/Plant Physiology	2
Mamita Kalita	401B Taxonomy of angiosperm	1,2,3,4 and practicals
Sadhana Talukder	406E Project/403B Plant Physiology	1,,3 and Practicals



HoD, Botany

Digboi College, Digboi

DEPARTMENT OF PHILOSOPHY
DIGBOI COLLEGE, DIGBOI
COURSE DISTRIBUTION
Session: 2022- 2023

- 1. Bisti Ram Narzary:** B.A 2nd Sem. (Honors), C3 Full Paper
B.A 4th Sem. (Honors), C10 Full Paper
B.A 6th Sem. (Honors), C13 Full Paper
B.A 6th Sem. (Honors), DSE3 Unit: I & II
H.S 1st Year Unit: V, VI, & VII
H.S 2nd Year Unit: IV, VII & VIII
- 2. Dr. Reepa Sarmah:** B.A 2nd Sem. (Honors), C4 Full Paper
B.A 4th Sem. (Honors), C9 Full Paper
B.A 6th Sem. (Honors), DSE4 Full Paper
B.A 6th Sem. (Honors), DSE3 Unit: II & III
H.S 1st Year Unit: I, III & IV
H.S 2nd Year Unit: III, V & VI
- 3. Ms. Bhaswati Talukdar:** B.A 2nd Sem. (Generic), GE2 Full Paper
B.A 4th Sem. (Honors), C8 Full Paper
B.A 6th Sem. (Honors), C14 Full Paper
B.A 6th Sem. (Honors), DSE3 Unit: II & IV
H.S 1st Year Unit: II, III & IV
H.S 2nd Year Unit: I & II

SESSION-2023

SEMESTER II

COURSE: HISGE2 HISTORY OF INDIA FROM THE EARLIEST TIMES TO 1526

P.K.Narah: Unit I – Unit III(3.03)

A.Neog : Unit III(3.04) – Unit V

SEMESTER IV

COURSE:HISGE 4.1 HISTORY OF MODERN ASSAM (1826-1947)

P.K.Narah: Unit I – Unit III(3.01)

A.Neog : Unit III(3.02) – Unit V

M.Sc. 4th Semester Life Sciences (Zoology) Syllabus Distribution

Aparajita Gogoi

LSC403Z: ANIMAL BEHAVIOUR

Unit 3: Antipredatory behaviour: Crypsis, avoidance of detection through camouflage, diverting coloration, structure and behaviour, warning coloration; Aggression, intimidation and group defense.

Unit 4: Social behaviour: Evolution of social behaviour, costs and benefits of sociality; Cooperation and altruism; Sexual behavior, mate choice and sexual conflict. Courtship behavior, parental care, offspring rearing, polygamy, polyandry and harem maintenance.

LSC405Z: Lab. Course on REPRODUCTIVE PHYSIOLOGY and ANIMAL BEHAVIOUR

7. Study of habituation (learning behaviour) of mosquito/millipede/honey bee.
8. Study of coloration pattern of selected fish in relation to concealment and courtship behaviour.
9. Study of foraging behaviour and feeding rhythm of fish.
10. Study of aggressive behaviour in fish in aquarium.

M.Sc. 4th Semester Life Sciences (Zoology) Syllabus Distribution

Dr. Kishor Haloi

LSC401Z: REPRODUCTIVE PHYSIOLOGY

Unit 1: Gonadal steroids: Chemistry, Sexual dimorphism of brain and role of gonadal steroid. Onset of puberty-pubertal activation of hypothalamic-pituitary-testicular axis, Reproductive cycles in mammals- Estrus cycle, Major events in the menstrual cycle, Endocrine regulation of menstrual cycle, Menstrual disorders – Precocious, delayed or absent puberty; Amenorrhea, Reproductive aging

LSC402Z: MOLECULAR ENDOCRINOLOGY

Unit 4: Hormone biosynthesis: Chemistry and biosynthesis of steroid, amino acid derived and peptide hormones.

LSC405Z: Lab. Course on REPRODUCTIVE PHYSIOLOGY and ANIMAL BEHAVIOUR

2. Determination of maturity stage in fish.

DSE -IV

A. BIOCHEMISTRY-IV LSD-406Z: PROJECT WORK

100 Marks

M.Sc. 4th Semester Life Sciences (Zoology) Syllabus Distribution

Dr. Moni Kankana Kalita

LSC401Z: REPRODUCTIVE PHYSIOLOGY

Unit 3: Fertility and its control: Methods of fertility regulation in male and female; contraceptive devices - oral, IUD; collection and cryopreservation of gametes and embryos; superovulation, in vitro fertilization (IVF) and embryo transfer, Birth defects and prenatal diagnosis

LSC402Z: MOLECULAR ENDOCRINOLOGY

Unit 6: Hormonal regulation of glucose, calcium, electrolyte and water homeostasis in vertebrates. Hormone agonists/antagonists.

LSC405Z: Lab. Course on REPRODUCTIVE PHYSIOLOGY and ANIMAL BEHAVIOUR

1. Histological preparation of testes and ovary (fish/toad/rat).

M.Sc. 4th Semester Life Sciences (Zoology) Syllabus Distribution

Miss. Priyanka Debnath

LSC401Z: REPRODUCTIVE PHYSIOLOGY

Unit 4: Hormones and reproduction: Seasonal and continuous breeder, regulation of gonadal activity, hypothalamo -hypophysical gonadal axis; Pineal gland –Melatonin and circadian rhythmicity, Role of Pineal gland in regulation of breeding cycles in animals. Eicosanoids, structure of prostaglandin (PGF_{2a} & PGE) and their role in reproduction, Epigenetic of reproduction

LSC402Z: MOLECULAR ENDOCRINOLOGY

Unit 1: The information flow in the brain: Connections and synapses, The transmitter systems: Amine neurotransmitters, Amino acid neurotransmitters, Peptide neurotransmitters.

Unit 5: Hormone receptors-physico-chemical properties; membrane receptors: structure, signal transduction and desensitization, Activation and inhibition of adenylatecyclase Mechanism of tyrosine kinase receptor action, Insulin receptor signaling and EGF receptor signaling. Structural domains, receptor binding proteins, SH2/SH3 domains.

LSC404Z: Lab. Course on MOLECULAR ENDOCRINOLOGY

2. Study of Histological preparations of endocrine gland of vertebrates
3. Standardization of solvent combination for invertebrate / vertebrate hormone detection using TLC

DSE -IV

A. BIOCHEMISTRY-IV LSD-406Z: PROJECT WORK

100 Marks

M.Sc. 4th Semester Life Sciences (Zoology) Syllabus Distribution

Miss. Piyali Devroy

LSC401Z: REPRODUCTIVE PHYSIOLOGY

Unit 2: Physiology of implantation: Placental hormones, Hormonal profile during pre and post implantation period, hormonal control of pregnancy, parturition and lactation. Corpus luteum in pregnancy-structure and function, luteolysis. Growth factor in implantation, Reproductive health

LSC402Z: MOLECULAR ENDOCRINOLOGY

Unit 2: Neuroendocrine system in vertebrates: Neurosecretory centres, chemistry and physiology of hypothalamic releasing and inhibiting hormones. Regulation of secretion of hypothalamic hormones.

Unit 3: Neuroendocrine system in invertebrates (insects): Hormones of insect neurosecretory cells, their sources, chemistry and function.

Unit 5: Steroid hormone receptor structure, receptor protein complexes involved in gene transcription, Positive and negative regulation of gene expression by steroid receptor/transcription factor interactions

LSC404Z: Lab. Course on MOLECULAR ENDOCRINOLOGY

1. Dissection of neuroendocrine system of cockroach, *Dysdercus*

DSE - IV

C. ENTOMOLOGY-IV LSD-406Z: PROJECT WORK

100 Marks

M.Sc. 4th Semester Life Sciences (Zoology) Syllabus Distribution

Rajib Rudra Tariang

LSC403Z: ANIMAL BEHAVIOUR

Unit 1: Evolutionary, comparative, descriptive and field oriented approach, classical ethological concepts, types of behaviour; stereotyped and instinct behavior; genetical, hormonal, nervous and environmental control of behaviour; variation: sources and factors that preserve genetic variation; natural selection and adaptation, rhythmic behaviour; biological and circadian clocks; development of behaviour; concepts of critical periods; Chronobiology and its relevance in animal survival and reproduction.

Unit 2: Orientation, communication and learning behaviour: types and mechanism of orientation, multiplicity of orientation cues. Visual, magnetic, chemical, sound and electrolocation; communication: definition and functions, channels for communications; learning and memory; habituation, associative learning - imprinting releasers, fixed action patterns; latent, insight and social learning.

LSC405Z: Lab. Course on REPRODUCTIVE PHYSIOLOGY and ANIMAL BEHAVIOUR

11. Grooming behaviour in cockroach.
12. Effect of humidity gradient on distribution of invertebrates (woodlouse/snail/earthworm).
13. Taxis in animals:
 - a) Thermotaxis in Paramecium.
 - b) Phototaxis in earthworm and Paramecium.
 - c) Geotaxis in earthworm.
 - d) Chemotaxis in Paramecium.
14. Behaviour project (as per course content).

DSE - IV

C. ENTOMOLOGY-IV LSD-406Z: PROJECT WORK

100 Marks

M.Sc 2nd Semester

Distribute of Syllabus for M.Sc Life Sciences (Zoology)

Session 2022

SECOND SEMESTER

Miss. Priyanka Debnath

LSC202: TOXICOLOGY, PEST MANAGEMENT, BIOETHICS & IPR

Section: A

Unit 1: Definitions: Pesticide definition, classification. Group characteristics of chemical pesticides Definition of pests and their classification. New generation pesticides: Pesticides of plant origin, neonicotinoids, pheromones, repellents, antifeedants, growth regulators, their mode of action and significance in pest management

Unit 2: Pesticide modes of action: Nerve impulse transmission in axon and synapse, Pesticide action on nerve impulse transmission, Principles of toxicology, Dose-response relationship, pesticide metabolism-Phase I and II reactions (Cyt p450 and glutathione-s-transferase)

LSD206: A. BIOCHEMISTRY –II (PROTEIN CHEMISTRY & ENZYMOLOGY)

Unit 1: Structure of protein in relation to their biological activity, primary, secondary, tertiary and quaternary structure, maintenance of secondary structure, Ramachandran Plot, protein folding, determination of amino acid sequence.

Unit 2: Biosynthesis of protein, direction of chain growth, Inhibitors of protein biosynthesis, Co-translational and Posttranslational modification of protein. Protein purification.

Unit 5: Biochemical aspects of Differentiation, Development and ageing, Theories of ageing, Biochemical and Molecular changes associated with ageing of animals.

Unit 6: Mechanism of protein and steroid hormone action, role of cAMP and G-protein in metabolism, prostaglandins.

M.Sc 2nd Semester

Distribute of Syllabus for M.Sc Life Sciences (Zoology)

Session 2022

SECOND SEMESTER

Miss. Piyali Devroy

LSC202: TOXICOLOGY, PEST MANAGEMENT, BIOETHICS & IPR

Unit 3: Toxic effects: Adverse effects of pesticides. Insect resistance to insecticides, Integrated pest management: Concepts & principles, pest control methods.

LSC206: ENTOMOLOGY II (INSECT PHYSIOLOGY)

Unit 4: Respiratory and reproductive system: Tracheal system and gaseous exchanges, aquatic respiration; Male and female reproductive systems, hormonal control of reproduction, special types of reproductions

Unit 5: Insect blood: Cell types and structure, plasma composition, insect immunity: cellular and humoral immunity, signalling in immune response to pathogenesis.

Unit 6: Insect Senses: Insect nervous system, neuromuscular junction, Ach:n-Ach and m-Ach receptor, ion channels, nerve impulse transmission, graded response, Mechanoreceptor, Chemoreceptor, Auditory organ (Chordotonal organ, Johnston's organ and tympanic membrane), Vision: structure and physiology.

M.Sc 2nd Semester

Distribute of Syllabus for M.Sc Life Sciences (Zoology)

Session 2022

SECOND SEMESTER

Mr. Rajib Rudra Tariang

LSC 201: Environmental Biology & Microbiology

Unit 3: Environmental degradation and management: Global environmental issues (deforestation, green house effect, depletion of ozone layer); Concept of EIA; Use of GPS, GIS and remote sensing in environmental management.

LSC206: ENTOMOLOGY II (INSECT PHYSIOLOGY)

Unit 1: Integument: Structure of insect cuticle, cuticular modifications, chitin biosynthesis; Physiology of moulting, sclerotization;

Unit 2: Insect hormones: chemistry, synthesis, degradation, mechanism of action; Hormonal control of growth, metamorphosis, osmoregulation. Diapause and its regulation.

Unit 3: Digestive and excretory system; Structure and modifications. Salivary and other digestive secretions, physiology of digestion and excretion

M.Sc 3rd Semester
Distribute of Syllabus for M.Sc Life Sciences (Zoology)
Session 2022-23

THIRD SEMESTER

Mrs Aparajita Gogoi

LSC301: ANIMAL PHYSIOLOGY

Unit 3: Generation of impulse -resting and action potentials, transmission of impulse, axonal, synaptic and neuromuscular transport of neuronal cells.

LSC302: IMMUNOLOGY

Unit 1: Types of immunity: innate and aquired immunity, active and passive immunity, primary and seconday immune response, humoral and cell mediated immune response.

M.Sc 3rd Semester
Distribute of Syllabus for M.Sc Life Sciences (Zoology)
Session 2022-23

THIRD SEMESTER

Dr. Kishor Haloi

LSC 301: ANIMAL PHYSIOLOGY

Unit 2: Types and comparative anatomy of heart in vertebrate, cardiac cycle and its regulation, blood pressure and heart diseases.

LSC 302: IMMUNOLOGY

Unit 3: Complement system: characteristic features, activation pathways and its biological consequences, structure and function of MHC I and MHC II molecules.

LSC 303: DEVELOPMENTAL BIOLOGY

Unit 1: Gamatogenesis: Cells in the seminiferous tubules; formation of spermatids; differentiation of the spermatozoa; Oogenesis - growth of the oocytes; nuclear activity during the growth of the oocyte; accumulation of food reserves in the cytoplasm of the oocytes; in vitro oocyte maturation; hormonal control of gametogenesis

LSD 306: A. BIOCHEMISTRY-III: MOLECULAR BIOLOGY

Unit 1: Organisation of DNA in chromosomes, Molecular structure, physico chemical properties of DNA, DNA-replication, DNA polymerase in Prokaryotes and Eukaryotes, DNA sequencing, satellite DNA, Palindrome sequences, repetitive DNA.

Unit 4: DNA damage and repair; Alterations in DNA molecule, repair of incorrect bases, repair of thymine dimmers, recombination repair, SOS repair.

M.Sc 3rd Semester
Distribute of Syllabus for M.Sc Life Sciences (Zoology)
Session 2022-23

THIRD SEMESTER

Mr. Rajib Rudra Tariang

LSC 301: ANIMAL PHYSIOLOGY

Unit 3: Gastrointestinal digestion- secretion and regulation of gastrointestinal juices. Digestion and secretion of carbohydrate, protein and lipid.

LSC302: IMMUNOLOGY

Unit 2: quantification of antigen/antibodies by RID, RIA and ELISA.

LSD106: C. ENTOMOLOGY-III

INSECT ECOLOGY AND APPLIED ENTOMOLOGY

Unit 1: Ecology and biodiversity of insects: Insect biodiversity and their functioning in terrestrial ecosystem. Insect population dynamics (growth pattern, dispersal), factors influencing dispersal and succession.

Unit 4: Pest definition, classification of pest, type of distribution (random, clumping, aggregate), estimation of intensity of pest damage and yield loss; economic injury level, economic threshold level, pest monitoring and sampling, Concepts of integrated pest management, Biological control, Basic concept in Entomopathogens (Baculovirus, Bacillus thuringiensis) and their mode of action, Insect cell line culture and their importance in pest control. pest quarantine, Insecticide Act of India, principles of insecticide formulation.

M.Sc 3rd Semester
Distribute of Syllabus for M.Sc Life Sciences (Zoology)
Session 2022-23

THIRD SEMESTER

Dr. Moni Kankana Kalita

LSC101: ANIMAL PHYSIOLOGY

Unit 1: Respiration in vertebrates, respiratory pigments; exchange and transport of gases, mechanism of breathing in mammals.

LSC102: IMMUNOLOGY

Unit 2: Immunoglobulin: molecular structure, classes and functions.

LSC103: DEVELOPMENTAL BIOLOGY

Unit 2: Changes in the organization of the egg cytoplasm caused by fertilization; in vitro fertilization.

M.Sc 3rd Semester
Distribute of Syllabus for M.Sc Life Sciences (Zoology)
Session 2022-23

THIRD SEMESTER

Dr. Shamim Dullah

LSC 301: ANIMAL PHYSIOLOGY

Unit 1: Structure, type and function of nephron; role of hormone in urine formation.

Unit 2: Physical and chemical composition of blood. Blood groups and blood coagulation, blood volume and its regulation.

LSC 302: IMMUNOLOGY

Unit 1: Clonal nature of immune response- monoclonal and polyclonal antibody; antigens - characteristics, antigenicity and immunogenicity, factors affecting immunogenicity, epitopes, haptanes, adjuvants, superantigens.

Unit 2: Ig gene arrangements, antigen-antibody interactions.

LSC 303: DEVELOPMENTAL BIOLOGY

Unit 2: Fertilization: approach of the spermatozoon to the egg; reaction of the egg; the essence of activation; components of the spermatozoon in the egg interior.

Unit 3: Cleavage: chemical changes during cleavage; totipotency and nuclear transfer experiments; distribution of cytoplasmic substances in the egg during cleavage; the morphogenetic gradients in the egg cytoplasm, Concepts of determination: mechanism of cellular determination, competence and induction: mechanism of action of the inducing substances.

LSD106: A. BIOCHEMISTRY-III

MOLECULAR BIOLOGY

Unit 2: Organisation of gene in Prokaryotes and Eukaryotes; Split genes, Overlapping genes, pseudogenes, transposable genetic elements, plasmids, Regulation of prokaryotic gene expression - inducible and repressible operon systems; Concept of eukaryotic gene expression and its difference with prokaryotic; Regulation of gene expression at transcription and translation level.

Unit 3: Transcription of RNA, sense and antisense strand, RNA polymerase in Prokaryotes and Eukaryotes, types and functions of RNA, RNA processing, spliceosome, catalyzed RNA splicing, Ribozyme, RNA editing, RNA sequencing. Reverse transcriptase and its significance.

Unit 5: Immunology; Clonal selection theory, Hybridoma technology and production of monoclonal antibodies Heavy and light chain gene of Ig, Molecular basis of diversity. Interferons - Type and mechanism of action.

Unit 6: Recombinant DNA technology; Importance of microorganisms in recombinant DNA technology, PCR, DNA finger printing; Transfer of genetic material (transformation, conjugation and transduction), Restriction enzymes; Principle and methods of gene cloning and genetic engineering (basic steps for human welfare), cDNA and gene targeting.

M.Sc 3rd Semester

Distribute of Syllabus for M.Sc Life Sciences (Zoology)

Session 2022-23

THIRD SEMESTER

Miss. Piyali Devroy

LSC 301: ANIMAL PHYSIOLOGY

Unit 3: Nervous system- central and peripheral N.S.; ultra structure of neurones.

Unit 4: Physiology of stress and adaptation - Concept of homeostasis and maintenance of volume and composition of body fluid. Concept of osmoregulation and adaptation to high altitude. Mountain sickness and acclimatization.

LSC 302: IMMUNOLOGY

Unit 4: Immunodeficiency disorders: congenital and acquired immunodeficiency disorders, immunological tolerance and autoimmune diseases, vaccine and vaccination.

LSC 303: DEVELOPMENTAL BIOLOGY

Unit 4: Cell differentiation and development: process & significance, hormonal regulations of metamorphosis, Regeneration, Genes and aging, Role of biotic, abiotic and symbiotic regulation of development, Stem cell concept: embryonic & adult stem cells, stem cell niches, stem cells and their alternatives in medical treatments.

LSD 306: ENTOMOLOGY III:

INSECT ECOLOGY AND APPLIED ENTOMOLOGY

Unit 2: Insect –plant interaction: Concept of co-evolution between plant and insects. Plant allelochemicals, host plant selection by insect, chemosensory basis of host plant selection, odour detection, olfactory signalling pathway, molecular basis of odour coding

Unit 3: Tritrophic interactions, host plant response to herbivory :Lipoxygenase, Mevanolate, Shikimic acide pathway. Plant resistance to insect, mechanism and types, nonpreference, antibiosis, antixenosis, tolerance

Unit 5: Importance of microorganism to recombinant DNA technology, DNA replication , Transcription, Restriction enzymes , PCR, DNA sequencing, DNA-DNA hybridization technique ,DNA finger printing, Transfer of genetic material (transformation, conjugation and transduction); Principle and methods of gene cloning and genetic engineering ; Gene regulation in prokaryotes and eukaryotes ;Transgenic plants for pest resistance-genes (B.t. toxin, trypsin

inhibitor, alpha- amylase inhibitorlectins), microbial production of recombinant molecules: principles and practice, sericulture and biotechnology.

Unit 6: Storage entomology: Storage loss: biotic factors, sources of infestation, role of temperature and moisture in infestation; Biology of major stored grain pests; Biochemical changes in stored commodities due to pest infestation; Principles of safe storage.