

CLASS AND SYLLABUS DISTRIBUTION for
the session: 2021—22
(SAMPLE)

1. Assamese
2. Bengali
3. Botany
4. Chemistry
5. Commerce
6. Economics
7. Education
8. Electronics
9. English
10. Geography
11. History
12. Mathematics
13. Physics
14. Zoology

Department of Assamese

Department of Assamese
Syllabus Distribution (As per Departmental meeting held on 13/09/2021)
Session 2021-2022
BA 1st Semester Assamese (Honours) CBCS

Paper Code	Course Title	Units	Teachers Name
C-1	History of Assamese literature	Unit - 1	Dr. MK Gogoi
		Unit - 2	Deepa S Borthakur
		Unit - 3	Dr. Lakshmi Devi
		Unit - 4	Achyut Saikia
		Unit - 5	Simanta Bordoloi
C-2	History of Assamese Literature	Unit - 1	Achyut Saikia
		Unit - 2	Simanta Bordoloi
		Unit - 3	Dr. Lakkshmi Devi
		Unit - 4	Deepa S Borthakur
		Unit - 5	Dr. MK Gogoi

Department of Assamese
Syllabus Distribution (As per Departmental meeting held on 13/09/2021)
Session 2021-2022
BA 3rd Semester Assamese (Honours) CBCS

Paper Code	Course Title	Units	Teachers Name
C-5	Literary Criticism	Unit - 1	Simanta Bordoloi
		Unit - 2	Dr. MK Gogoi
		Unit - 3	Simanta Bordoloi
		Unit - 4	Achyut Saikia
C-6	Selection From Assamese Poetry	Unit - 1	Achyut Saikia
		Unit - 2	Deepa S Borthakur
		Unit - 3	Deepa S Borthakur
		Unit - 4	Simanta Bordoloi
		Unit - 5	Dr. MK Gogoi
C-7	Studies on the Culture of Assam	Unit - 1	Deepa S Borthakur
		Unit - 2	Dr. MK Gogoi
		Unit - 3	Deepa S Borthakur
		Unit - 4	Dr. Lakshmi Devi
		Unit - 5	Dr. Lakshmi Devi

Department of Assamese
Syllabus Distribution Syllabus Distribution (As per Departmental meeting held on 13/09/2021)
Session 2021-2022
BA 5th Semester Assamese (Honours) CBCS

Paper Code	Course Title	Units	Teachers Name
C-11	Assamese Drama	Unit - 1	Simanta Bordoloi
		Unit - 2	Deepa S Borthakur
		Unit - 3	Deepa S Borthakur
		Unit - 4	Simanta Bordoloi
C-12	Studies on Assamese Linguistics	Unit - 1	Dr. MK Gogoi
		Unit - 2	Dr. MK Gogoi
		Unit - 3	Dr. MK Gogoi
		Unit - 4	Dr. MK Gogoi
		Unit - 5	Dr. MK Gogoi
DSE- 1	Assamese Grammar, Lexicon and Idiomatic usage	Unit - 1	Dr. Lakshmi Devi
		Unit - 2	Dr. Lakshmi Devi
		Unit - 3	Dr. Lakshmi Devi
		Unit - 4	Dr. Lakshmi Devi
		Unit - 5	Dr. Lakshmi Devi
DSE - 2	Introduction to Indian Literature	Unit - 1	Achyut Saikia
		Unit - 2	Achyut Saikia
		Unit - 3	Achyut Saikia
		Unit - 4	Achyut Saikia
		Unit - 5	Achyut Saikia

Department of Assamese
Syllabus Distribution (As per Departmental meeting held on 13/09/2021)
Session 2021-2022
BA 1st Semester MIL (Assamese), CBCS

Paper Code	Course Title	Units	Teachers Name
AECC-2	Communicative Assamese	Unit - 1	Dr. MK Gogoi
		Unit - 2	Dr. Lakshmi Devi

Daily Class Routine (online/offline)
 Department of Assamese
 Digboi College, Digboi
 Session – 2020-2021 and 2021-2022

ONLINE CLASS ROUTINE OF BA- I, III SEMESTER (CBCS) AND BA- V SEMESTER

	10:00 – 11:00	11:00 – 12:00	12:00 – 01:00	01:00 – 02:00
MON	C-5 - SB	C-7-MG	C-6-DB	
	C-1-AS	C-2-DB		
	5 TH Sem-MG		5 TH Sem-AS	5 TH Sem-LD
TUE		C-5-LD	C-6-SB	
		C-1-SB		
	5 TH Sem-DB	5 TH Sem-MG	5 TH Sem-AS	
WED	C-6-AS		C-5-LD	
		C-1-LD	C-2-SB	
	5 TH Sem-SB		5 TH Sem-DB	
THU	C-5-MG	C-6-SB	C-7-DB	
		C-2-MG	MIL - LD	
	5 TH Sem-AS	5 TH Sem-LD		
FRI	C-7-LD	C-5-SB	C-6-DB	
		C-2-AS		
	5 TH Sem-MG	5 TH Sem-LD	5 TH Sem-SB	
SAT	C-7-LD	C-6-MG		
	C-1-DB			MIL-MG
		5 TH Sem-AS	5 TH Sem-DB	

DB= Deepa Sharma Borthakur
 AS= Achyut Saikia
 MG= Mrinal Kumar Gogoi
 SB= Simanta Bordoloi
 LD= Lakshmi Devi

1st Semester – C-1, C-2, MIL
 3rd Semester – C-5, C-6, C-7

Daily online class routine (CBCS & Semester)
BA 2nd, 4th, 6th Semester

	11:30 - 1230	12:30 – 1:30
MON	Core-3-MG Core-8-AS 6th Sem-M-SB	Core-4-MG Core-9-DB 6th Sem-M-AS
TUE	Core-3-DB Core-10-SB 6th Sem-M-LD	Core-4-SB Core-8-AS 6th Sem-M-MG
WED	Core-3-DB Core-9-LD 6th Sem-M-SB	Core-4-SB Core-10-MG 6th Sem-M-DB
THU	Core-3-LD Core-8-AS 6th Sem-M-SB	Core-4-MG Core-9-DB 6th Sem-M-AS
FRI	Core-10-SB 6th Sem-M-MG	Core-4-AS 6th Sem-M-LD
SAT	Core-3-LD 6th Sem-M-DB	6th Sem-M-LD

Course	Total Class	Class allotted				
C-3	5	DB-2	MG-1		LD-2	
C-4	5	MG-2	AS-1	SB-2		
C-8	3	AS-3				
C-9	3	DB-1	LD-2			
C-10	3	SB-2	MG-1			
6 th Sem Major	12	DB-2	MG-2	AS-2	SB-3	LD-3

DB	6
MG	6
AS	6
SB	7
LD	6

Total Class - 31

OFFLINE CLASS (MORNING)						ONLINE CLASS (EVENING)				
MON	8:30-9:30 C-1/MA/DB	10:30-11:30 C-2/MA/MS/LD				2:15-3:00 HS-1/ML/AS	6:00-6:45 5 TH SEM/SB	6:45-7:30 5 TH SEM/LD	7:30-8:15 5 TH SEM/AS	8:15-9:00 5 TH SEM/MG
TUE	8:30-9:15 C-3/MS/SB V-SEM/MA/AS	9:15-10:00 C-6/MS/DB V-SEM/MA/LD	10:00-10:45 V-SEM/MA/AS	10:45-11:30 C-7/MS/MG 5 TH SEM/MA/DB			6:00-6:45 HS-1/ADV/AS/SB C-1/AS	6:45-7:30 C-2/DB	7:30-8:15 SEM-ML/LD/MG	8:15-9:00 C-2/SB
WED	8:30-9:15 C-5/MS/LD 5 TH SEM/MA/AS	9:15-10:00 C-6/MS/DB 5 TH SEM/MA/MG	10:00-10:45 5 TH SEM/MA/SB	10:45-11:30 C-7/MS/DB 5 TH SEM/MA/LD	12:45-1:30 HS-1/ML/MA/MS		6:00-6:45 C-1/MG	6:45-7:30 C-2/AS		8:15-9:00 HS-1/ML/SB
THU	8:30-9:30 C-1/MA/SB	10:30-11:30 C-2/MA/AS	12:00-12:45 HS-1/ML/MA/DB		12:45-1:30 HS-1/ADV/MA/AS		6:00-6:45 C-5/DB	6:45-7:30 HS-1/ML/MG C-6/SB-10 am	7:30-8:15 HS-1/ADV/AS/SB	8:15-9:00 C-7/LD
FRI	8:30-9:15 C-5/MS/MG 5 TH SEM/MA/LD	9:15-10:00 C-6/MS/AS 5 TH SEM/MA/DB	10:00-10:45 C-7/MS/LD 5 TH SEM/MA/MG	10:45-11:30 5 TH SEM/MA/SB			6:00-6:45 C-1/LD	6:45-7:30 C-2/MG	7:30-8:15 C-3/SB	
SAT	8:30-9:15 5 TH SEM/MA/MG	9:15-10:00 5 TH SEM/MA/AS	10:00-10:45 5 TH SEM/MA/DB	10:45-11:30 5 TH SEM/MA/SB	12:45-1:30 HS-1/ADV/MA/LD	2:15-3:00 HS-1/ML/SB	6:00-6:45 C-1/DB	6:45-7:30 C-6/AS	7:30-8:15 C-7/MG	

DEPARTMENT OF ASSAMESE
DAILY CLASS ROUTINE, 2021.

	8:30 - 9:15	9:15 - 10:00	10:00 - 10:45	10:45 - 11:30	11:30 - 12:15	12:15 - 1:00	1:00 - 1:45	1:45 - 2:30	2:30 - 3:15
M O N	HS-I					Adv.Ac.-M4/LD			ML-M5/SB
	HS-II							Adv.Ac.-M4/DB	
	SEM-I	C1-M4/SB	C2-M4/LD	ML-M5/MG					
	SEM-III	C6-M7/AS	C8-M7/SBG	C7-M4/DB					
	SEM-V					M-M4/DB	M-M4/MG	M-M4/LD	M-M4/SB
T U E	HS							Adv.Ac.-M5/SB	
	HS-II					ML-M5/DB			Adv.Ac.-M4/LD
	SEM-I	C1-M4/AS	C2-M4/SBG	ML-M5/LD					
	SEM-III	C5-M7/SB	C6-M7/DB	C7-M4/SB					
	SEM-V					M-M4/DB	M-M4/LD	M-M4/MG	M-M4/AS
W E D	HS					Adv.Ac.-M5/DB			ML-M5/DB
	HS-II							ML-M5/AS	
	SEM-I	C1-M4/DB	C2-M4/AS	ML-M5/LD					
	SEM-III	C7-M7/SBG	C6-M7/LD	C8-M4/SB					
	SEM-V					M-M4/SB	M-M4/AS	M-M4/LD	M-M4/MG
T H U	HS								Adv.Ac.-M4/AS
	HS-II					Adv.Ac.-M5/AS		ML-M5/MG	
	SEM-I	C1-M4/LD	C2-M4/SB						
	SEM-III	C6-M7/SB	C8-M7/SBG	C7-M4/LD					
	SEM-V					M-M4/SB	M-M4/AS	M-M4/LD	M-M4/DB
F R I	HS							ML-M5/LD	
	HS-II							Adv.Ac.-M5/DB	
	SEM-I	C1-M4/MG	C2-M4/DB						ML-M5/SB
	SEM-III	C5-M7/AS	C6-M7/SBG	C7-M4/LD					
	SEM-V					M-M4/MG	M-M4/DB	M-M4/SB	M-M4/AS
S A T	HS					Adv.Ac.-M5/SBG			ML-M5/AS
	HS-II							Adv.Ac.-M5/SB	ML-M5/LD
	SEM-I		C1-M4/SB	C2-M4/LD					
	SEM-III	C7-M4/DB	C6-M7/LD	C8-M7/AS					
	SEM-V					M-M4/DB	M-M4/MG	M-M4/AS	M-M4/SB

Class Distribution:

Deoga Sarmah Borahbar = 14
Dr. Arindam Kumar Gogoi = 14
Arindam Saha = 14

Sinanta Bordoloi = 16
Dr. Lakshmi Devi = 17

Total Class = 77

DEPARTMENT OF ASSAMESE

Syllbus DISTREBUTION 2021-2022(Even SEMESTER)

2nd ,4th and 6th semester(from Jan,2022 to June,2022)

2nd , semester

Paper code	Course title	unit	Name of the Teacher
C3		01	Deepa Sarma Borthakur
		02	Deepa Sarma Borthakur
		03	Dr.Lakshmi Devi
		04	Dr.Lakshmi Devi
		05	Deepa Sarma 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
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4th semester

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

Paper code	Course title	unit	Name of the Teacher
C9	Indo-Aryan Languages and Assamese	01	Deepa Sarma Borthakur
		02	Deepa Sarma Borthakur
		03	Dr. Lakshmi Devi
		04	Dr. Lakshmi Devi
		05	

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

6th semester

Paper code	Course title	unit	Name of the Teacher
		01	
		02	
		03	
		04	
		05	

Paper Code	Course title	unit	Name of the Teacher
C13	Selection from Assamese Prose	01	Simanta Bordoloi
		02	Simanta Bordoloi
		03	Dr. Mrinal kr. Gogoi & Achyut Saikia
		04	Simanta Bordoloi
		05	Simanta Bordoloi

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

		03	Deepa Sarma Borthakur
		04	Deepa Sarma 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	All	Dr. Mrinal kr. Gogoi

Department of Bengali

Daily Online 3rd Semester (CBCS) class routine for the session of 2021-22 (w.e.f. 13/09/21)

Day	1.30-2.15	2-15 -3.00	3.00 -3.45	3.45 4.30	4.30-5.15
MON			Bengali (GE) K.D.		
TUE				Bengali (GE) D.M.	
WED					
THU	Bengali (GE) K.D.				
FRI		Bengali (GE) D.M.			
SAT			Bengali (GE) K.D.		

N:B: *D.M. for Dipesh Mandal : SEM -3 : Unit : 1

*K.D. for Dr. Kanai Das: SEM -3 :Unit : 2

*বি:দ্র:- প্রয়োজনে পরিবর্তন সাপেক্ষ ।



13/09/21

Signature of the H.o.D.

Daily Online class routine for the session of 2020–21 (w.e.f. 18/01/21)

Day	10.00 – 10.45	10.45 – 11.30	11.30 – 12.15	12.15 – 1.00	1.00 – 1.45	1.45 – 2.30	2.30– 3.15
MON	SEM I (MIL) K.D	SEM III (GE) D.M	SEM I (GE) K.D	H.S.I (ADV) D.M		H.S.II (ADV) K.D	H.S. I(MIL) D.M
TUE	SEM III GE K.D	SEM I (MIL) D.M	SEM I (GE) K.D	H.S.II (MIL) D.M	H.S.I (ADV) K.D		H.S.II(ADV) D.M
WED	SEM I (MIL) K.D	SEM III (GE) D.M	SEM I (GE) D.M			H.S. I (MIL) K.D	
THU	SEM III (GE) K.D		SEM I (GE) D.M	H.S. I (MIL) K.D	H.S. II(MIL) D.M		H.S.I (ADV) K.D
FRI		SEM III (GE) K.D	SEM I (GE) D.M	H.S.II(ADV) K.D	H.S. I (MIL) D.M		
SAT		SEM III (GE) D.M	SEM I (GE) D.M H.S.I (ADV) K.D		H.S. II(ADV) D.M	H.S.I (MIL) K.D	H.S.II (MIL) K.D



24/01/21

Signature of the H.o.D.
Department of Bengali, Digboi College.

Daily class routine for the session of 2021-22 (w.e.f. 21/10/21)

Day	8.00 - 9.00	9.00 - 10.00	10.00 - 11.00	11.00 - 12.00	12.00 - 1.00	1.00 - 2.00	2.00 - 3.00	3.00 - 4.00
MON		H.S. II(MIL) D.M. M-17 Sem I(GE) K.D. M-8			H.S.I (MIL) D.M. M-8	H.S.I (ADV) K.D. M-8 Sem III(GE) D.M. AT 3	H.S.II (ADV) K.D. M-8	
TUE		SEM -III(GE) K.D. M- 8		H.S.I (ADV) D.M. M-8	SEM -I(MIL) K.D. M-8	H.S.II (MIL) K.D.M-17 SEM -I(GE) D.M. M- 8		
WED		H.S.II (MIL) D.M. M-8	H.S.I (ADV) K.D. M-10 Sem I(GE) D.M. M-8	H.S.II(ADV) D.M. M-8	SEM -III(GE) K.D. M- 8			
THU		H.S.II (ADV) K.D. M-8	H.S.I (MIL) K.D. M-8 SEM -III(GE) D.M. M- 17		H.S.I (ADV) D.M. M-8 SEM -I(GE) K.D. M- 10	SEM -I(MIL) D.M. M-8		
FRI		H.S.I (MIL) D.M. M-8			H.S.II (Adv) D.M.M-8 SEM -III(GE) K.D. M- 12	Sem I(GE) K.D. M-8		
SAT		SEM -I(GE) D.M. M- 8	H.S.I (ADV) K.D. M-17 H.S.II (MIL) D.M. M-8	H.S.II (ADV) K.D..M- 8	H.S.I (MIL) K.D. M-8 SEM -III(GE) D.M. M- 6			

N:B: *D.M. for Dipesh Mandal : H.S. II (MIL) ১) গদ্য ২) দু'টি পাঠ্য প্রবন্ধ ৩) নাটক ; H.S. II (ADV) ১) গদ্য , ছন্দ ও অলঙ্কার:মুকুট H.S.I (MIL) – গদ্য ও নাটক , H.S.I (ADV)- গদ্য ও সাহিত্যের ইতিহাস ,Sem- I (MIL) –Unit –I & 2 Sem- I (GE) – Unit -1& 3, Sem –III –Unit 1

*K.D. for Dr. Kanai Das H.S. II (MIL) ১) পদ্য ২) ব্যাকরণ: H.S.II (ADV) ১) পদ্য ২) মেজদিদি H.S.I (MIL) পদ্য ও ব্যাকরণ: H.S I (ADV) – পদ্য ও গল্প ,Sem- I (MIL) –Unit –3 Sem- I (GE) – Unit -2 & 4, Sem –III –Unit- 2



20//10 /21

Signature of the HoD
Department of Bengali, Digboi College.

Department of Botany

MSc Life Science (Botany) 2021-2022

1ST SEMESTER COURSE DISTRIBUTION

Faculty Name	Paper Code	Units.
J.S.Phukan	LSD-106: Cytogenetics	Unit-1
Dr.T.C.Dutta	LSD-106: Cytogenetics	Unit-2,3,4,5,6+ Lab Course
D.M.Das	LSD-106 Microbiology	Unit-1,2,3,4,5,6+ Lab Course
Dr.D.Das	LSC-102: Genetics LSC-103: Bioinformatics	Unit-4,5,6+ Lab Course Unit-5,6+ Lab course
New Appointee	LSC(A)103: Biological Techniques LSE108: Biodiversity Conservation	Unit-1,2,3+ Lab Course Unit-1,2

HoD, Botany

COURE DISTRIBUTION

DEPARTMENT OF BOTANY, EVENSEMESTER, 2020

Name	Sem.	Honours/major	Sem.	Generic/general
Mrs J.S.Phukan	ii(H)	Core course-iv- Gymnosperms(Unit-6)& Related practicals	ii(G)	Phytogeography(Unit-5)
	iv(M)	Cell Biology(Unit-2)	iv(G)	Plant Physiology(Unit4,5)
	VI(M)	Paper-601&602	vi(G)	-----
Dr T.C.Dutta	ii(H)	Core course-iv Bryophytes(Unit-2&3)	ii(G)	Ecological Factors(Unit-2);Plant Communities(Unit-3)
	iv(M)	Cell Biology(Unit-1,3,4,5)	iv(G)	-----
	vi(M)	Paper-603 and related practicals	vi(G)	-----
Mr. D.M.Das	ii(H)	Core course course-iii- Mycology&Phytopathology& Related practicals.	ii(G)	Ecosystem(Unit-4)
	iv(M)	Modern Laboratory Technique	iv(G)	Plant Physiology(Unit-1,2,3,&6)
	vi(M)	Paper-606&607	vi(G)	-----
Dr.Mrs.D.Das	ii(H)	Core course-iv- Pteridophytes(Unit-4&5)& Related practicals	ii(G)	Taxonomy(Unit-6,7,8,9,10,11,12)
	iv(M)	Paper-401&402	iv(G)	Economic Botany(Unit-1)
	vi(M)	Paper-604 & related practicals	vi(G)	-----

Dutta
18/11/2020
HoD, Botany

Digboi College

COURSE DISTRIBUTION OF EVEN SEMESTER 2021

Name	Sem.	Course distribution	Sem.	Course distribution
L.S. Phukan	11(H)	CC(iv), Gymnosperms(unit-6)& Related practicals	11(GE)	Plant physiology(unit-4&5) & Related practicals
	VI(M)	Paper-601&602	iv(GE) Vi(P)	Phytogeography(Unit-5) Plant Geobotany(Unit-1)
Dr. J. C. Das	11(H)	CC-IV Bryophytes(Unit-2&3)	11(GE)	Plant physiology (Unit-1&2)
	IV(H)	CC-viii Molecular biology <u>With</u> related practicals	iv(GE)	Plant ecology (Unit-4)
	VI(M)	Paper-603&Related practicals	VI(P)	Biochemistry (Unit-1&2)
D. M. Das	11(H)	CC(111) Mycology and phytopathology & Related practicals	11(GE)	Plant Physiology (Unit-3, 6&7)
	IV(H)	CC(ix) Plant Ecology, Phytogeography & Related practicals	iv(GE)	Plant Ecology (Unit 1, 2&3)
	VI(M)	Paper-606&607	VI(P)	Plant Ecology (Unit 1, 2, 3, 4&5)
Dr. D. Das	11(H)	CC(iv) Pteridophytes (Unit-4&5) & Related practicals	11(GE)	Plant Physiology (Unit-7&9)
	IV(H)	CC(x) Plant Systematics & Related practicals	iv(GE)	Taxonomy (Unit-6, 7, 8, 9, 10, 11, 12)
	VI(M)	Paper-604 & Related practicals	VI(P)	Plant Ecology (Unit-4) Plant Geobotany (Unit-2)

Dr. D. Das

COURSE DISTRIBUTION, DEPARTMENT OF BOTANY

Odd Semester, 1st, 3rd, 5th Semester, 2021

Name	Sem.	Honours Course	Sem.	Generic Elective Course
J.S.Phukan	1 st 3 rd 5 th	CC-1-Unit-5,6 & Rivularia CC-V, Unit-1,4,5 (Anatomical adaptations) CC-XII, Plant Physiology, Practs	1 st 3 rd	Unit-8-Gymnosperms Unit-8
T.C.Dutta	1 st 3 rd 5 th	CC-II, Unit-4,5,6,7 CC-VII, Whole Paper, Pract CC-XI, Rep. biology of Angiosperms, Pract.	1 st 3 rd	Unit-2 & 4 Unit-1 & 2
D.M.Das	1 st 3 rd 5 th	Unit-1,2,3,4,7 & Practicals. Unit-2,3,4 & 5 (Except Anatomical Adaptations) & All Practicals DSE-4-Industrial and Environmental Microbiology	1 st 3 rd	Unit-1, 3 Unit-3,4,5
D.Das	1 st 3 rd 5 th	CC-II-Unit-1,2,3 CC-VI Entire Paper, Practs. V-DSE-2-Bioinformatics, Practs.	1 st 3 rd	Unit-5,6,7 Unit-6,7

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HoD, Botany



Department of Botany

Daily Class Routine for the Session-2021-2022.

Day	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4
MON		I(G)-TD	III(H)-JP	I(H)-JP VH-DD	HSII-DMD III(H)-DD	I(H)-TD V(H)-DMD		
TUES		IIIG-E-TD V(H)DD	I(H)-JP	III(H)-DD V(H)-JP	V(H)-DMD	I(G)-DMD III(H)-DD	HSI-DMD	
WED	HSII-DD	I(H)TD	I(G)-JP III(H)DMD	III(H)JP V(H)-DMD	III(G)-DD V(H)TD			
THURS		I(H)-DMD	I(H)-DD V(H)-JP	HSI-DD III(H)-TD V(H)-DMD	I(G)-DD V(H)-TD	III(H)-DMD		
FRI			III(H)-DD V(H)-TD	V(H)-JP	I(H)-DMD III(G)-JP V(H)-DD	HSII-DMD III(H)-TD		
SAT		I(G)-TD	III(H)-DMD V(H)-JP	I(H)-DD	III(G)-DMD	HSI) III(H)-TD V(H)-DMD	V(H)-TD	

HoD, Botany

DEPARTMENT OF BOTANY

CLASS ROUTINE 2021

9.45-10.30	10.30-11.15	11.30-12.30	12.30-1.30
	Bio/Bot/DO	II(H)C ₁ JP IV(H)C ₁ TD VI(M)DO	II(H)C ₁ DO IV(H)C ₁ DMD VI(M)JP
		II(H)C ₁ TD IV(H)C ₁ DO VI(P)DMD/DO VI(M)DMD	II(H)C ₁ JP IV(H)C ₁ TD VI(M)DO
		II(H)C ₁ JP IV(H)C ₁ DMD VI(M)TD	II(H)C ₁ TD IV(H)C ₁ DO VI(M)DMD VI(P)JP/TO
		II(H)C ₁ DMD IV(H)C ₁ TD VI(M)JP	II(H)C ₁ DO IV(H)C ₁ DMD VI(M)TD
		II(GE)JP/TO IV(H)C ₁ DO VI(M)DMD	II(H)C ₁ DMD IV(GE)JP/TO VI(M)DO
	Bio/Bot/DMD	II(H)C ₁ DMD VI(M)JP	II(GE)DO IV(GE)DMD VI(M)TD

II(GE)-1st HALF-IP/DMD

IV(GE)-1st HALF-TD/DO

VI(P)-1st HALF-IP/DMD

II(GE)-2nd HALF-TD/DO

IV(GE)-2nd HALF-IP/DMD

VI(P)-2nd HALF-TD/DO

100/1000

Department of Botany

Class routine, 5th semester and HS 2nd yr. 2021

DAY	9-9.45	9.45-10.30	10.30-11.15	11.15-12	12-12.45	12.45-1.30
MON	5 th (H)DMD	5 th (H),TD	5th(H) ISP	5 th (H)DD	HS-II,TD/DD	
TUES	5 th (H)DD	5 th (H)DMD	5 th (H),ISP	5 th (H)TD		
WED	5 th (H)TD	5 th (H)DD	5 th (H),JSP	5 th (H)DMD		HS-II,DMD/DD
THURS	5 th (H)DMD	5 th (H)DD	5 th (H)ISP	5 th (H)TD		
FRI	5 th (H),TD	HS-II,TD/DMD	5 th (H)ISP	5 th (H)DD	5 th (H),DMD	
SAT	5 th (H),DD	5 th (H)TD	5 th (H)ISP	5 th (H)DMD		

3rd Semester offline class routine ,2021

Department of Botany

DAY	12-12.45	12.45-1.30	1.30-2.15
MON	III(H)TD	III(H)DD	III(H)DMD
TUES	III(H)JSP	III(H)TD	III(H)DD
WED	III(H)JSP	III(H)DMD	III(H)TD
THURS	III(H)TD	III(H)DMD	III(H)DD
FRI	III(H)JSP	III(H)DD	III(H)DMD
SAT	III(H)DD	III(H)DMD	III(H)TD

HoD, Botany

Department of Botany

Daily Class Routine for the Session-2021-2022.

Day	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4
MON		I(G)-TD	III(H)-JP LSC102,DD	I(H)-JP VH-DD	HSII-DMD III(H)-DD LSD106,JP	I(H)-TD V(H)-DMD		LSC104,DD/ST
TUES		IIIGE-TD V(H)DD	I(H)-JP	III(H)-DMD V(H)-JP LSC103,DD	V(H)-DMD LSD106,TD	I(G)-DMD III(H)-DD	HSI-DMD	
WED	HSII-DD	I(H)TD	I(G)-JP III(H)DMD	III(H)JP V(H)-DMD LSC103,DD	III(G)-DD V(H)TD LSD106,DMD			
THURS		I(H)-DMD	I(H)-DD V(H)-JP	HSI-DD III(H)-TD V(H)-DMD LSC103,ST	I(G)-DD V(H)-TD LSD106,DMD	III(H)-DMD		LSC107,TD
FRI			III(H)-DD V(H)-TD LSC103,ST	V(H)-JP LSA108,ST	I(H)-DMD III(G)-JP V(H)-DD LSD106,TD	HSII-DMD III(H)-TD		LSC105,DD
SAT		I(G)-TD LSC102,DD	III(H)-DMD V(H)-JP	I(H)-DD LSC103,ST	III(G)-DMD LSA108,ST	HSI-DD III(H)-TD V(H)-DMD	V(H)-TD	LSD107,DMD

1st Semester M.Sc Life Sciences Class Routine: Department of Life Sciences: Digboi College, w.e.f 08/11/2021

Day/Time	9.00 - 10.00 AM	10.00 - 11.00 AM	11.00 - 12.00 PM	12.00-1.00 PM	2.00- 4.00 PM
Mon	LSC101 AG/SD	LSC102 DD/TCD/ST	LSC103 AG/RRT/KH/MKK/SD	LSD106 TCD/ST/MKK/RRT/SD	LSC104 JSP/TCD/DMD/DD/ST
Tue	LSC102 MKK/SD	LSC101 KH	LSC103 ST/TCD/DMD	LSD106 DD/ST/RRT/AG/SD	LSC105 AG/RRT/MKK/KH/SD
Wed	LSC101 MKK	LSC102 SD/KH	LSC103 DD/ST/TCD	LSD106 DMD/ST/RRT/KH/SD	LSC104 AG/RRT/MKK/KH/SD
Thu	LSC102 AG/RRT	LSC101 SD	LSC103 JSP/ST	LSD106 JSP/DMD/AG/SD	LSD107 DD/KH/MKK/DMD
Fri	LSC101 RRT/SD	LSC102 DMD/JSP/ST	LSA108 TCD/JSP/DMD/DD/ST	LSD106 TCD/ST/RRT/SD	LSC105 JSP/TCD/DMD/DD/ST
Sat	LSC102 ST/DD	LSC101 SD	LSC103 TCD/DMD/ST	LSA108 AG/RRT/KH/MKK	LSD107 RRT/SD/ST/TCD

101T – Zoology 6 classes Botany nil
 102T – Zoology 3 classes Botany 3 classes
 103T- Zoology 1 Classes Botany 4 Classes
 106T- Zoology 5x2= 10 Classes Botany 5x2= 10 Classes
 108T- Zoology 1 class Botany 1 class
 104P- Zoology 2 Classes Botany 2 classes
 105P- Zoology 2 classes Botany 2 classes
 107P- Zoology 2x2= 4 classes Botany 2x2= 4 classes

Total = 55 Classes

Dr. Kishor Haloi

**Course co-ordinator, M.Sc Life Sciences,
Digboi College**

Paper Name:

LSC101 = Biological Chemistry & Molecular Biology
 LSC102 = Cell Biology & Genetics
 LSC103= Techniques in Biology, Biostatistics & Bioinformatics
 LSC104 = Lab. Course: Biological Chemistry, Molecular Biology and Techniques in Biology

 LSC105= Lab. Course: Cell Biology, Genetics, Biostatistics & Bioinformatics
 LSD 106 Zoo = Entomology-I: Insect diversity and evolution
 Zoo = Biochemistry-I
 Bot = Genetics & Crop improvement-I: Genetics & Cytogenetics
 Bot = Microbiology-I
 LSD 107 Zoo= Lab course based on DSE106 C
 Bot= Lab course based on DSE106 E
 LSA 108 = Biodiversity Conservation

TCD - Dr. Tilak Ch. Dutta, JSP - Mrs. Jyotshna Sharma Phukan, AG – Mrs. Aparajita Gogoi, RRT- Mr. Rajib Rudra Tariang, DMD - Mr. Dulumoni Das, DD - Dr. Dimpy Das, KH - Dr. Kishor Haloi, MKK- Dr. Moni Kankana Kalita, SD- Miss. Samim Dullah, ST-Miss. Sapna Tiwari

2nd Semester M.Sc Life Sciences Class Routine: Department of Life Sciences: Digboi College, w.e.f 01/04/2022

Day/Time	8.00 -9.00 AM	9.00 - 10.00 AM	10.00 - 11.00 AM	11.00 - 12.00 PM	12.00-1.00 PM	2.00- 4.00 PM
Mon	GE 1 AM	LSC201 DD	LSC202 KH	LSC203 MKK	LSD206 DMD/TCD/SD/RRT	LSC204 DD/ST/NA
Tue	----	LSC202 SD	LSC201 DD	LSC203 KH	LSD206 DMD/TCD/KH/RRT	LSC205 AG/KH/MKK/SD
Wed	GE 1 AM	LSC201 NA/ST	LSC202 KH/MKK	LSC203 ST	LSD206 DMD/TCD/SD/RRT	LSC204 DD/ST/NA
Thu	----	LSC202 SD	LSC201 ST	LSC 203 DD	LSD206 DMD/TCD/SD/RRT	LSD207 TCD/DMD/RRT/SD
Fri	GE 1 AM	LSC201 NA/ST	LSC202 SD	LSC 203 AG	LSD206 DMD/TCD/SD/RRT	LSC205 AG/KH/MKK/SD
Sat	----	LSC202 MKK	LSC201 ST	LSC203 NA/ST	LSD 206 DMD/TCD/SD/RRT	LSD207 TCD/DMD/RRT/SD

201T – Botany 6 classes Zoology Nil
 202T – Zoology 6 classes Botany Nil
 203T- Zoology 3 Classes Botany 3 Classes
 206T- Zoology 6x2= 12 Classes Botany 6x2= 12 Classes
 208T (GE 1) - Chemistry 6 class
 204P- Botany2 Classes Zoology Nil
 205P- Zoology 2 classes Botany Nil
 207P- Zoology 2x2= 4 classes Botany 2x2= 4 classes

Total = 60 Classes

Kishor Haloi

Dr. Kishor Haloi

**Course co-ordinator, M.Sc Life Sciences,
 Digboi College**

Paper Name:

LSC201 = ENVIRONMENTAL BIOLOGY & MICROBIOLOGY
 LSC202 = TOXICOLOGY, PEST MANAGEMENT, BIOETHICS & IPR
 LSC203= TAXONOMY, EVOLUTION & BIODIVERSITY
 LSC204 = Lab. Course:ENVIRONMENTAL BIOLOGY & MICROBIOLOGY
 LSC205= Lab. Course:TOXICOLOGY, PEST MANAGEMENT, TEXONOMY AND EVOLUTION
 LSD 206 A (Zoo) = ENTOMOLOGY II (INSECT PHYSIOLOGY)
 C (Zoo)= BIOCHEMISTRY –II (PROTEIN CHEMISTRY & ENZYMOLOGY)
 E (Bot) = Genetics & Crop improvement-II: Crop Improvement
 F (Bot) = Microbiology-II : Applied Microbiology
 LSD 207 Zoo= Lab course based on DSE 206 A and Lab course based on DSE 206 C
 Bot= Lab course based on DSE 206 E and Lab course based on DSE 206 F
 GE 208 = GE 1: Materials Chemistry

TCD: Dr. T. C. Dutta, AG: Mrs. A. Gogoi, RRT: Rajib R. Tariang, DMD: Mr. Dulu Moni Das, DD: Dr. Dimpy Das, KH: Dr. K. Haloi, MKK: Moni K. Kalita, AM: Dr. Abhijit Mahanta, SD: Dr. SamimDullah, ST: Miss. S. Tiwari, NA: New Appointment

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	DSE306B(F) Molecular Microbiology, Unit: 1,2,4 301 B Mycology and Plant Pathology, Unit: 1,2,3,4
3	Dr. Dimpri Das	303B Pteridophytes and Gymnosperms, Whole Paper, Practs.
4	Swapna Triwari	DSE306B(F), Molecular Microbiology, Unit: 3,5,6, Practs.
5	Sadhana Talukder ²	302B Algae and Bryophytes, Unit-3,4(N/A), Unit: 1,2(ST)



HoD, Botany

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Dr. T. C. Dutta

LSD206: E. CROP IMPROVEMENT –II MUTATION and CROP IMPROVEMENT

Unit 1: Mutation: (a) at chromosomal level: euploidy and aneuploidy, deletion, duplication, translocation and cytogenetics and breeding behaviour of translocation heterozygote and deficiency, position effect, induction of polyploidy; (b) at molecular level: Frame shift and substitution mutation, DNA damage and repair, Spontaneous and induced mutation; mutagens and their mode of action and (c) at biochemical level: One gene – one enzyme hypothesis, biochemical degradation of phenylalanine in man, biochemical mutation in *Neurospora*.

Unit 2: Genetic basis of plant breeding: Genetic consequence of hybridisation, quantitative inheritance, population structure, Hardy Weinburg Law, combining ability, heritability, genetic advance, genetic base, choice of breeding methods, germplasm activities and exploration.

Unit 3: Breeding procedure for self pollinated, cross pollinated and vegetatively propagated plants, mutation and ploidy breeding including haploidy in crop improvement; Heterosis, dominance and over dominance hypothesis, inbreeding depression, estimation of heterosis, types of hybrids and development of hybrid seeds. Concept and utility of distant hybridisation.

Unit 4: Breeding for disease and insect resistance, Types of genetic resistance, vertical and horizontal resistance, mechanism of disease and insect resistances, factors or genes of resistance, source of resistance, breeding methods, advantage and limitations of resistance breeding.

Unit 5: *In vitro* technique in plant breeding: cell and tissue culture, primary culture, cell line, cell clones, callus culture, somaclonal variation, micropropagation, somatic embryogenesis, haploidy, protoplast fusion and somatic hybridisation, transgenesis, artificial seeds, application and achievements of *in vitro* techniques in plant breeding.

Unit 6: Breeding of wheat, rice, sugarcane, cotton, potato and major pulses in India with special reference to their origin, classification and production of improved varieties.

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

MrsAparajitaGogoi

LSC203: TAXONOMY, EVOLUTION & BIODIVERSITY

Section: B

Unit 5: Biodiversity: Definition & type of biodiversity: species, genetic and molecular diversity. Biodiversity hotspots in India and global mega diversity regions.

Unit 6: Biogeographical realms of the world, geographic origins and distribution of species, Biogeographical Zones of India.

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Mr. Rajib Rudra Tariang

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

Unit4: 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 (Botany)

Session 2022

SECOND SEMESTER

Mr. Dulu Moni Das

LSD206: F. MICROBIOLOGY-II APPLIED MICROBIOLOGY

Unit 1: Microbial Ecology: The ecology of micro organisms in different environmental conditions; Role of microorganisms in biogeochemical cycles; Role of rhizosphere and phylloplane microorganisms; Biochemistry of N₂– fixation.

Unit 2: Microbiology of air and water: Aerobiology; Air sanitation, Microbiology in relation to water pollution; Coliform group and its importance in water pollution; Bacterial analysis of water (Detection of coliform group in water); Purification of water; waste water (sewage) treatments.

Unit3: Food Microbiology: Microbiology of milk and milk products; spoilage and preservation of foods;. Food produced (fermented foods) by microbes.

Unit 4: Petroleum Microbiology: Microbial community in Petroleum, Utilization of petroleum by microorganisms; petroleum prospecting with the help of microorganisms; microbial oil recovery.

Unit 5: Medical Microbiology: a) Some important diseases caused by bacteria, actinomycetes, virus and fungi; b) Bacterial toxins; c) Diseases, symptoms, pathogenicity, laboratory diagnoses and control of the diseases caused by the following organisms: *Corynebacterium diphtheriae*, *Clostridium tetani*, *Vibrio cholerae*, *Mycobacterium tuberculosis*, *Polio virus*, *Hepatitis virus*.

Unit 6: Industrial Microbiology: Importance of microorganisms in industry, Industrial process of Microbial fermentation of alcohol, citric acid and lactic acid; Industrial enzymes; foods from waste (single cell proteins); Manufacture of antibiotics in industry (Penicillin, Streptomycin).

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Dr. Dimpy Das

LSC203: TAXONOMY, EVOLUTION & BIODIVERSITY

Section A

Unit 1: Definition of taxonomy, Species concept: typological, nominalistic, biological and evolutionary; Species category: polytypic species, subspecies; Mechanisms of speciation.

Unit 2: Concepts of structural, biochemical and molecular systematic; Sources of taxonomic characters (Numerical, geographical, ecological & parasitological). Molecular techniques in taxonomy.

Section B

Unit 3: Emergence of evolutionary thinking: Lamarck, Darwin: Variation, adaptation, natural selection. Genes in population and Hardy-Weinberg equilibrium, Forces of evolution, mutation, migration, non-random mating, genetic drift, Natural selection (Fitness).

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Dr. Kishor Haloi

LSC202: TOXICOLOGY, PEST MANAGEMENT, BIOETHICS & IPR

Section: B

Unit 4: Bioethics and IKS: Historical perspectives of bioethics; Conflicting issues (GMO, GMP, Cloning, Environmental hazards); Principles and guidelines for research in animals and human; Intellectual Property Rights and their types; Indigenous knowledge system, biopiracy.

LSC203: TAXONOMY, EVOLUTION & BIODIVERSITY

Section: B

Unit 4: Phylogenetic tree: reading and using, the tree of life.

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

Unit 3: Enzymes: Energetics of enzyme catalyzed reaction single and bisubstrate reactions, mechanism of action, Allosteric enzymes, Enzyme induction and inhibition (competitive, non-competitive and uncompetitive), purification of enzymes.

Unit 4: Enzyme kinetics; Michalis-Menten plot, Lineweaver Burk plot, Hill plot, Regulation of enzyme activity, restriction enzymes, RNA as an enzyme, Isoenzyme and their significance. Regulation of metabolism by enzyme.

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Dr. Moni Kankana Kalita

LSC202: TOXICOLOGY, PEST MANAGEMENT, BIOETHICS & IPR

Section: B

Unit 5: Agreement and treaties : GATT & TRIPs Agreement, Madrid Agreement, Hague Agreement, WIPO Treaties, Indian Patent Act 1970 and recent amendment. Patent cooperation treaty, Patent filing procedure.

Unit-6: Overview of Intellectual Property Rights: Introduction and need of IPR; IPR in India and abroad. Role of IPR in modern Biotechnological research. Patents, Copyright, Trademarks and Geographical Indications. Process of patenting.

LSC203: TAXONOMY, EVOLUTION & BIODIVERSITY

Section: B

Unit 4: Modern evolutionary synthesis; Origin of basic biological molecules; Concept of neutral evolution and molecular clocks. Chemical evolution – origin of life in the light of chemical evolution. Adaptive radiation.

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Dr. Abhijit Mahanta

General Elective-I Course: GE 205 (Materials Chemistry)

Unit I: Materials of technological importance: Introduction to Bio-inspired/Bio-mimetic materials. Bio-materials: types, properties, design, preparation and application. Structural, functional bio-mimetics, nano-biomimetics, Introduction to bio-sensors, nano-biosensors; technological importance. Principles, examples and current status.

Unit II: Polymer materials: Classification of polymers, Molecular forces and chemical bonding in polymers, Texture of Polymers. Determination of crystalline melting point and degree of crystallinity, Morphology of crystalline polymers, Factors affecting crystalline melting point. Physical, thermal, Flow & Mechanical Properties of polymers. Conducting polymers- Introduction, conduction mechanism, polyaniline (PANI), polyacetylene, polyparaphenylene and polypyrrole, applications of conducting polymers, Ion-exchange resins and their applications. polymermatrix composites. Ceramic & Refractory: Introduction, classification, properties, raw materials, manufacturing and applications.

Unit III: Nanostructured materials: Introduction to Nanoscience and Nanotechnology, influence of nano over micro/macro. 1D, 2D and 3D nanostructured materials, Quantum Dots shell structures, mechanical-physicalchemical properties, Quantum confinement effect and Surface plasmon resonance. Synthesis and modification of nanoparticles: Top-Down and Bottom-Up approach, experimental procedure (coprecipitation, Sol-gel, Hydrothermal, colloidal etc.), Properties of precipitates and precipitating reagents: Colloidal and Crystalline Precipitates, nucleation (homogeneous and heterogeneous), crystal growth, morphology dependence properties. Introduction to surface active agents, types of surfactants. Basic characterizations for structural purity and morphology study. Applications of metal oxide and semiconductor nanoparticles in catalysis (photocatalysis, electrocatalysis etc.) and energy.

M.Sc 2nd Semester

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

Session 2022

SECOND SEMESTER

Dr. SamimDullah

LSC202: TOXICOLOGY, PEST MANAGEMENT, BIOETHICS & IPR

Section: A

Unit1: 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

Unit2: 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)

Unit3: Toxic effects: Adverse effects of pesticides. Insect resistance to insecticides, Integrated pest management: Concepts & principles, pest control methods.

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

Unit1: 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 Post translational 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 (Botany)

Session 2022

SECOND SEMESTER

Miss Sapna Tiwari

LSC201: ENVIRONMENTAL BIOLOGY & MICROBIOLOGY

Section B

Unit 4: History, classification of microorganisms; Bacteria: structure of bacterial cell, reproduction, growth curve, continuous growth and synchronous growth.

Unit 5: Archaea: characters and uses; Actinomycetes: general characters; Antibiotics :characters, some important antibiotics, their sources and actions; Viruses: general characters, chemical nature, structure of TMV, bacteriophage and HIV virus, life cycles of viruses (Lytic and lysogenic); classification of virus.

Unit 6: Applied microbiology: Study of microbial population in air, air sanitation; microbial population in water, indication of faecal pollution, water purification; Contamination of milk, testing of milk for different microbes, pasteurization; Concept of microbial ecology of soil, rhizosphere, mycorrhiza. Free-living and symbiotic types of Nitrogen fixation , Rhizobium and nodule; Biofertilizers. Industrial production of alcohol, vinegar; Use of microorganisms for bioassay;

M.Sc 2nd Semester
Distribute of Syllabus for M.Sc Life Sciences (Botany)
Session 2022

SECOND SEMESTER

New Appointment

LSC201: ENVIRONMENTAL BIOLOGY & MICROBIOLOGY

Section A

Unit 1: Scope of ecology; concepts of limiting factors; nutrient cycling with special reference to carbon, nitrogen & phosphorus cycles. Ecosystem dynamics and management: diversity, stability and complexity of ecosystem, energy flow concept and methods of measurement of productivity.

Unit 2: Population dynamics: population attributes, biotic potential and environmental resistance, population growth forms, survivorship curves, age structure, population fluctuations, interactions and regulation of population; concept of ecological niche, niche width and overlap, fundamental and realized niche; concept of meta population, demes and dispersal.

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.

Department of Chemistry

Course distribution

Session: June 2021-Dec 2021

Semester I (CBCS)	Semester III (CBCS)	Semester V (CBCS)
Paper C-101 (Inorganic Chemistry)	Paper C-301 (Inorganic Chemistry)	Paper C-501 (Organic Chemistry)
Unit 1: NH	Unit 1: NH	Unit I: BS
Unit 2: NH	Unit 2: NH	Unit II:AM
Unit 3: NH	Unit 3: NH	Unit III:AM
Unit 4: NH	Unit 4: NH	Unit IV: AM
	Unit 5: NH	Unit V: BS
		Unit VI: BS
Paper C-102 (Physical Chemistry)	Paper C-302 (Organic Chemistry)	Paper C-502 (Physical Chemistry)
Unit I: NJK	Unit I: BS	
Unit II: NJK	Unit II: AM	Unit I: JD
Unit III: JD	Unit III: BS	Unit II: NH+JD
Unit IV: JD	Unit IV: AM	Unit III: NJK
	Unit V: BS	
Paper Chemistry GE-101(Atomic Structure,bonding, general Organic Chemistry and aliphatic Hydrocarbons)	Paper C-303 (Physical Chemistry)	Paper DSE-501 (Analytical methods in Chemistry)
Unit 1: NH	Unit I: NJK + JD	Unit 1: NH
Unit 2: NH	Unit II: NJK + JD	Unit 2: NH+ NJK
Unit 3: AM	Unit III: NJK	Unit 3: NH
Unit 4: BS	Unit IV: NJK	Unit 4: NJK
Unit 5: AM	Paper: Chemistry GE 301 (Solution, phase equilibrium, Electrochemistry and functional Group organic Chemistry II	Unit 5: NH+NJK
		Paper DSE-502 (Green Chemistry)
		Unit 1: BS
		Unit 2: BS
	Unit 1: JD	Unit 3: AM
	Unit 2: NJK	Unit 4: AM
	Unit 3: NJK	
	Unit 4: JD	
	Unit 5: BS	
	Unit 6: BS	
	Unit 7: AM	
	Unit 8: AM	

JD: Mrs. Jonali Dutta, NH: Mrs. Neelakshi Hazarika,

NJK: Dr. Nayan Jyoti Khound, BS: Dr. Bishwajit Saikia, AM: Dr. Abhijit Mahanta

Class Routine

Dept. of Chemistry

(September 2021)

DAY	Class	9.00-9.45	9.45-10.30	10.30-11.15	11.15-12.00	12-12.45	12.45-1.30	1.30-2.15	2.15-3.00	3.00-3.45	3.45-4.30
MONDAY	HS <u>√T</u>			NH				PRAC NJK+AM			
	S5	C-AM	C-JD	DSE BS	DSE NH	TUT/ PRACTCAL	PRACT JD				
	S3					NJK	BS	AM			
TUESDAY	HS - <u>TI</u>				AM			PRAC NJK+AM			
	S5	DSE BS	C-JD	C-NH	DSE NJK	TUT/ PRACTCAL	PRACT BS				
	S3					NJK	JD	AM			
WEDNESDAY	HS <u>II</u>					NJK					
	S5	DSE BS	DSE NH	C-NJK	C-AM	TUT/PAC	PAC BS				
	S3					JD	NH	NJK			
THURSDAY	HS <u>II</u>						BS				
	S5	C JD	DSE AM	DSE NH	C NJK	TUT/PAC NH	PRACT NJK				
	S3					NH	JD	NJK			
FRIDAY	HS <u>I</u>	JD						PRAC NJK+AM			
	S5	C JD	C NJK	DSE AM	DSE BS	TUT/PAC	PAC NH				
	S3					BS	NH	AM			
SATURDAY	HS <u>II</u>		NH					PRAC NJK+AM			
	S5	DSE BS	DSE AM	C-JD	C NH	TUT/PAC	PAC NH				
	S3					JD	NH	AM			

(Offline made)

Jmeli Dns
sept 21

(Total 54)

Class Routine, Dept. of Chemistry. (January 2021)

Day	Class	8.30	9.15	10.00	10.45	11.30	12.15	1.00	1.45	2.30
Monday	HS-I									
	HS-II						Ch-15, JD			
	S-I	C-M12, JD	C-M12, NH		Ge-M15, AM			Ch-M2, NJK	Ch-Pr, NJK/AM	
	S-III	C-M13, AM	C-M13, BS	C-M13, NH	Ge-M13, JD					
	S-V					M-M13, NJK	M-M13, NJK	M-M13, NH	M-M13, BS	
Tuesday	HS-I							NM-D, JD		
	HS-II							Ch-M15, NH		
	S-I	C-M12, NJK	C-M12, JD	Ge-M15, NH					Ch-Pr, NJK/AM	
	S-III	C-M13, BS	C-M13, NH	Ge-M13, JD	C-M13, AM					
	S-V					M-M13, NJK	C-M13, NH	C-M13, JD	C-M13, BS	P-D, NJK
Wednesday	HS-I					Ch-M15, NH				
	HS-II					Ch-M2, JD				
	S-I	C-M12, NJK	C-M12, JD		Ge-M15, NH					
	S-III	C-M13, BS	C-M13, NJK	C-M13, JD	Ge-M13, NJK					
	S-V					M-M13, BS	M-M13, AM	M-M13, AM	P-D, NJK	
Thursday	HS-I									Ch-M15, NJK
	HS-II									
	S-I	C-M12, NJK	C-M12, NH	Ge-M15, AM						
	S-III	C-M13, BS	C-M13, NJK	Ge-M13, BS	C-M13, NH					
	S-V					M-M13, JD	P-D, NH	M-M13, NH	M-M13, AM	M-M13, BS
Friday	HS-I									
	HS-II							Ch-M2, NH		Ch-Pr, AM/NJK
	S-I	C-M12, NJK	C-M12, NH		Ge-M15, BS					
	S-III	C-M13, AM	C-M13, NJK	C-M13, JD	Ge-M13, AM					
	S-V					M-M13, JD	M-M13, BS/P-D, JD	M-M13, NJK	M-M13, AM	
Saturday	HS-I					Ch-M15, JD				
	HS-II							Ch-Pr, NJK/AM		
	S-I		C-M12, NJK	C-M12, NH	Ge-M15, AM					
	S-III	C-M13, NJK	C-M13, AM	C-M13, JD	Ge-M13, NJK					
	S-V					M-M13, NH	M-M13, NH	M13, BS/P-D, JD	M-M13, AM	
							P-D, NH			

From 01-01-2021 (offline)

Jonali Datta
HOD
Dept. of Chemistry

Class Routine

B.Sc (Semester) Dept. of chemistry

HS

Day	Class	Time							
		8.30 AM	9.15 AM	10.00 AM	10.45 AM		12.45 PM	1.30 PM	2.15 PM
Monday	SEM I	C-1, Ch 13, NJK	Ch(C), Ch 13, NH	Ch (Ge), M 15, AM		HS I			
	SEM III								
	SEM V								
Tuesday	SEM I					HS II	Gr A, M 15, NIK		Gr B, M16, AM
	SEM III	Ch (C), M 12, BS	Ch(C), M 12, NH	Ch (C), M 12, NH	Ch (Ge), M 12, NJK				
	SEM V	Ch(M), M 13, AM	Ch(M), M 13, BS	Ch (M), M 13 NJK	Ch (M) M 13, NH				
Wednesday	SEM I					HS II			
	SEM III	Ch (C), M 12, AM	Ch (C), M 12, NH	Ch (C), M 12, NH	Ch (Ge), M 12, BS				
	SEM V	Ch (M), M 13, NJK	Ch(M), M 13, BS	Ch (M), M 13 NH	Ch (M), M 13, AM				
Thursday	SEM I	Ch(C) M 13, NJK	Ch (C), M 13, NH	Ch (Ge), M 13, NH		HS I		Gr A, M 15 AM	
	SEM III							Gr B, M 16 BS	
	SEM V								
Friday	SEM I					HS II		Gr A, M 15, AM	
	SEM III	Ch(C) M 12, BS	Ch(C), M 12, AM	Ch (C), M 12, NJK				Gr B, M 16, NJK	
	SEM V	Ch (M), M 13, NJK	Ch (M), M 13, BS	Ch (M), M 13, NH	Ch(M), M13, NH				
Saturday	SEM I					HS II			
	SEM III								
	SEM V	Ch (M), M 13, AM	Ch (M), M 13, BS	Ch (M), M 13, NH	Ch (M), M 13, BS				

01/11/2020

Offline class

Jonali Dutta
HOD, Dept. of chemistry
1/11/20

Class Routine

Dept. of chemistry

(November 2021)

DAY	Class	8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12-1.00	1.00-2.00	2.00-3.00	3.00-4.00
MONDAY	HS I								
	HS II	CH-M2, BS							
	S I	REM/ PRAC CH G, NH				CH -C1, M 12, JD	PRAC C2, NJK+ JD		
	S3		PRAC C5, NJK+NH	CH C6-M13, AM		CH C7-M13, NJK	PRAC CH GE 3, AM+ BS		
	S5	REM	PRAC CH- C11, AM+ BS		CH- C 12, D, BS		CH- DSE 1, NH	PRAC CH -DSE 2, NJK+ JD	
TUESDAY	HS I						CH -M2, AM	PRAC AM + BS	
	HS II		CH -M15, JD					PRAC NJK + AM	
	S I	REM, PRAC C1, NH		CH -C2, M 13, NH			CH -GE, M 12, NH		
	S3	REM	CH -GE - M 13, BS		CH -C7, M 13, NH		CH -C5, M 13, BS		
	S5	REM	CH -DSE 2, D, AM		CH -C11, D, NJK	CH- C12, D, JD	PRAC CH- DSE 1, NH+ AM		
WEDNESDAY	HS I			CH -M2, NH				PRAC AM + BS	
	HS II					CH -M15, NJK		PRAC NJK + AM	
	S I	REM	CH- C1 -M5, JD	PRAC CH GE, AM+ BS			CH-C2, M 13, NJK		
	S3	PRAC C7, NH		CH-C5, M 13, NJK	CH-C6, M 13, AM	CH GE - M 13, JD			
	S5	REM	PRAC CH -DSE 1, NH+ AM		CH- DSE 2, D, NH	CH- C11, D, BS	PRAC CH- C12, AM+ NJK		
THURSDAY	HS I						CH -M2, NJK		
	HS II						CH -M15, AM		
	S I	REM	CH -C1, M 13, NH	PRAC CH C2, NJK+ JD		CH -GE, M 13, NH			
	S3	PRAC C5, JD+ AM				CH -C7, M 13, JD	CH-C6, M 13, NH	PRAC GE 3 NJK + JD	
	S5	REM		CH -C12, D, AM	CH- DSE 1 D NJK	CH- C11, D, BS	PRAC CH DSE 2, BS+ AM		
FRIDAY	HS I							CH -M2, AM/ PRAC AM + BS	
	HS II			CH -M15, NH				PRAC NJK + AM	
	S I	REM	CH -C1, M 12, NH		CH- C2, M 13, JD		CH -GE, M 13, AM		
	S3		PRAC C5, NJK+ JD	CH -C7-M13, BS		CH GE - M 13, NJK	CH-C5, M 12, NJK		
	S5	REM		CH- DSE 2, D, NJK	CH -C 12, D, AM	CH -DSE 1, D, JD	PRAC CH-C11, NH		
SATURDAY	HS I			CH -M2, BS				PRAC AM + BS	
	HS II							PRAC NJK + AM	
	S I		CH -GE, M 12, BS	PRAC CH-C1, NH			CH-C2, M 12, NJK		
	S3		PRAC C6 AM + BS	CH -C5, M 13, JD		CH GE - M 13, AM	CH-C6, M 13, NH		
	S5	REM		CH-DSE 2, D, AM	PRAC CH-C12, NH+ JD		CH-DSE 1, D, JD	CH-C11, D, NH	

Fro
All
Semester
and
HS

Janelle D
20/11/21

Class Routine

Dept. of chemistry

(October 2021)

DAY	Class	9.00-9.45	9.45-10.30	10.30-11.15	11.15-12.00	12-12.45	12.45-1.30	1.30-2.15	2.15-3.00	3.00-3.45	3.45-4.30
MONDAY	HS <u>I</u>			GRP A NJK/ GRP B NH				PRAC NJK+AM			
	S5	C-AM	C-JD	DSE BS	DSE NH	TUT/ PRACTCAL	PRACT JD				
	S3							C6 BS	C7 JD	GE BS	
TUESDAY	HS <u>II</u>				GRP A JD/ GRP B AM			PRAC NJK+AM			
	S5	DSE BS	C-JD	C-NH	DSE NJK	TUT/ PRACTCAL	PRACT BS				
	S3							C5 NH	C6 AM	C7 NJK	GE AM
WEDNESDAY	HS <u>II</u>					GRP A NJK/ GRP B JD					
	S5	DSE BS	DSE NH	C-NJK	C-AM	TUT/PRAC	PRACT BS				
	S3								C5 NH	C6 AM	C7 NJK
THURSDAY	HS <u>II</u>						GRP A BS/ GRP B AM				
	S5	CJD	DSE AM	DSE NH	C NJK	TUT/PRAC NH	PRACT NJK				
	S3							GE NJK		C5 NH	C6 BS
FRIDAY	HS <u>II</u>	GRP A BS/ GRP B AM						PRAC NJK+AM			
	S5	CJD	C NJK	DSE AM	DSE BS	TUT/PRAC	PRACT NH				
	S3							C7 JD	GE NJK		C5 NH
SATURDAY	HS <u>II</u>		GRP A NJK/ GRP B NH					PRAC NJK+AM			
	S5	DSE BS	DSE AM	C-JD	C NH	TUT/PRAC	PRACT NH				
	S3							C6 BS	C7 JD	GE JD	C5 NH

(Offline made)

(Generic classes are included)

Ineli Datta
HOD, Dept. of Chemistry
20/10/21

Even Semester Routine- 2022, Department of Chemistry, Digboi College, w.e.f 01/04/2022

DAY	Class	8.00-9.00	9.00-10.00	10.00-11.00	11.00-12.00	12 -1.00	1.00-2.00	2.00-3.00	3.00-4.00
MONDAY	HS I								
	HS II	CH -M 2 BS							
	S 2	REM JD	PRAC GE NJK + JD		CH -C3, M 12 BS	PRAC C4, NJK+ JD			
	S4		PRAC C8, NH	CH C9-M13, AM		CH C10-M13, JD	PRAC CH GE BS		
	S6	REM	PRAC CH- C13, JD+ NH		CH- C 14, D, AM		CH- DSE 3 D, NJK		
TUESDAY	HS I						CH -M2, AM	PRAC AM + BS	
	HS II		CH-M15 NJK					PRAC NJK + AM	
	S 2	REM, PRAC C3, AM+BS		CH -C4, M 13, JD			CH -GE, M 12, NJK		
	S4	REM BS	CH -GE - M 13, JD		CH -C10, M 13, NJK		CH -C8, M 13, NH		
	S6	REM AM	CH -DSE 4, ALL		CH -C13, D, NH	CH- C14, D, BS	PRAC CH- DSE 3, AM		
WEDNESDAY	HS I			CH -M2, NH				PRAC AM + BS	
	HS II					CH-M15, AM		PRAC NJK + AM	
	S 2	REM NJK	CH- C3-M5, BS	PRAC CH GE, AM+ BS			CH-C4, M 13, NJK		
	S4	PRAC C10, JD+NJK		CH-C8, M 13, BS	CH-C9, M 13, NH	CH GE - M 13, NJK			
	S6	REM BS	PRAC CH -DSE 3, BS		CH- DSE 4, ALL	CH- C13, D, NH	PRAC CH- C14, BS+AM		
THURSDAY	HS I						CH -M2, NJK		
	HS II						CH -M15 NH		
	S 2	REM BS	CH -C3, M 13, AM	PRAC CH C4, NJK+ JD		CH -GE, M 13, JD			
	S4	PRAC C8, NH			CH -C10, M 13, JD		CH-C9, M 13, AM	PRAC GE 3 NJK + AM	
	S6	REM JD		CH -C14, D, JD	CH- DSE 3, D, BS	CH- C13, D, NH	PRAC CH DSE 4, ALL		
FRIDAY	HS I							CH -M2, AM/ PRAC AM + BS	
	HS II			CH -M15 JD				PRAC NJK + AM	
	S 2	REM AM	CH- C3, M 12, AM		CH- C4, M 13, JD		CH -GE, M 13, BS		
	S4	PRAC C9, BS+AM		CH -C10-M13, NJK		CH GE - M 13, NH	CH-C8, M 12, NH		
	S6	REM NJK		CH- DSE 4, D, ALL	CH -C 14, D, BS	CH -DSE 3, D, NJK	PRAC CH-C13, NH		
SATURDAY	HS I			CH -M2, BS				PRAC AM + BS	
	HS II							PRAC NJK + AM	
	S 2		CH -GE, M 12, AM	PRAC CH-C3, BS+AM			CH-C4, M 12, NJK		
	S4	PRAC C 10 JD+NJK		CH -C8, M 13, NH		CH GE - M 13, NH	CH-C9, M 13, BS		
	S6	REM JD		CH-DSE 4, D, ALL	PRAC CH-C14, AM+BS		CH-DSE 3, D, AM	CH-C13, D, NH	

Practical

HS-I: NJK - BS + AM

HS -II: NJK - BS + AM

D
1/4/22

Course Distribution
Session: March 2022 - June 2022
Department of Chemistry, Digboi College

Semester II (CBCS)	Semester IV (CBCS)	Semester VI (CBCS)
Paper C-201 (Organic Chemistry)	Paper C-401 (Inorganic Chemistry)	Paper C-601 (Inorganic Chemistry)
Unit I: BS	Unit 1: NH	Unit I: JD
Unit II: BS	Unit 2: NH	Unit II: NH
Unit III: AM	Unit 3: NH	Unit III: NH
Unit IV: AM	Unit 4: NH	Unit IV: NH
Unit V		
Paper C-202 (Physical Chemistry)	Paper C-402 (Organic Chemistry)	Paper C-602 (Organic Chemistry)
Unit I: NJK	Unit I: BS	Unit I: JD +BS +AM
Unit II: JD	Unit II: BS	Unit II: AM
Unit III: JD+NJK	Unit III: AM	Unit III: BS
Unit IV: JD	Unit IV: AM	Unit IV: BS
	Unit V: AM	
Paper: ChemistryGE-201 (Chemical energetics Equilibria and functional organicChemistry)	Paper C-403 (Physical Chemistry)	Paper DSE-602 (Industrial Chemicals and Environment)
	Unit I: NJK	Unit I: AM +BS
Unit 1: NJK	Unit II: JD	Unit II: NH
Unit 2: NJK+JD	Unit III: JD	Unit III: NJK
Unit 3: JD		Unit IV: JD + NJK
Unit 4: BS		Unit V: BS
Unit 5: BS	Paper: Chemistry GE 401 (Transition metals, co-ordination Chemistry, states of matter and Chemical Kinetics)	Paper DSE-603 (Dissertation)
Unit 6: AM	Unit 1: NH	Group 1: JD
	Unit 2: NH	Group 2: NH
	Unit 3: NH	Group 3: NJK
	Unit 4: NJK	Group 4: BS
	Unit 5: NJK	Group 5: AM
	Unit 6: JD	
	Unit 7: JD	

WORK LOAD
DEPARTMENT OF CHEMISTRY, DIGBOI COLLEGE
EVEN SEMESTER 2022
wef 01.04.2022

SL/No	Teacher	HS- I (T)	HS- I (PR)	SEM- II (C) T	SEM- II (C) PR	SEM- II (GE) T	SEM- II (GE) PR	SEM- IV(C) T	SEM- IV(C) PR	SEM- IV(GE) T	SEM- IV(GE) PR	SEM- VI (C) T	SEM- VI (C) PR	TOTAL	SEMINAR	REMEDIAL
1	JD	0	0	2	1	1	1	2	1	1	0	2	1	12	1	1
2	NH	1	0	0	0	0	0	4	2	2	1	4	1	15	1	1
3	NJK	1	0	2	1	1	0	2	1	1	1	3	1	14	1	1
4	BS	1	0	2	1	1	0	2	1	0	0	4	2	14	1	1
5	AM	2	0	2	1	1	1	2	1	0	0	3	3	16	1	1

Jonali Dutta
2/4/22

Jonali Dutta
HOD, Dept. of Chemistry
Digboi College

HS II (Th) = 5 classes
 HS II (Pr) = 3 classes

Department of Commerce

CLASS ROUTINE FOR HS-II YEAR AND B.COM-5TH SEMESTER

DAY	CLASS	9.00-9.45	9.45-10.30	10.30-11.15	11.15-12.00
MONDAY	HS-1				
	HS-2		BST-SC		
	B.COM-1				
	B.COM-3				
	B.COM-5	POM-DG		CB-SB	RM-SC
TUESDAY	HS-1				
	HS-2			BST-SC	
	B.COM-1				
	B.COM-3				
	B.COM-5	RM-SC		POM-DG	CB-SB
WEDNESDAY	HS-1				
	HS-2			BST-SB	
	B.COM-1				
	B.COM-3				
	B.COM-5	CB-DG	RM-DG		POM-SB
THURSDAY	HS-1				
	HS-2			BST-SC	
	B.COM-1				
	B.COM-3				
	B.COM-5		RM-SC	CB-SB	POM-DG
FRIDAY	HS-1				
	HS-2			BST-SB	
	B.COM-1				
	B.COM-3				
	B.COM-5	POM-SB		CB-DG	RM-SC
SATURDAY	HS-1				
	HS-2	BST-SC			
	B.COM-1				
	B.COM-3				
	B.COM-5	CB-DG	RM-DG	POM-SB	

SUBJECT	BST-2	CB	RM	POM	TOTAL
DR.D.GOGOI	0	3	2	3	8
S. BHARADWAJ	2	3	0	3	8
DR.S. CHAKRABORTY	4	0	4	0	8

Department of Economics

Online Class Routine of Economics Dept., Digboi College
From 20th May 2021 onwards

	9-9.45	9.45-10.30	10.30-11.15	11.15-12	11.30-12.30	12.30-1.30	Per Head class	
Mon	HS2-KP				C3-SH C8-SG SM6-MG	C4-MS C9-SH SM6-SG	MS=1 MG=1 SG=2	KP=1 SH=2
Tue		HS2-SH			C3-SG C10-KP SM6-MG	C4-MS C8-SG SM6-KP	MS=1 MG=1 SG=2	KP=2 SH=1
Wed				HS2-KP	C3-SG C9-MG SM6-MS SC6-SH	C4-MS C10-KP SM6-SH	MS=2 MG=1 SG=1	KP=2 SH=2
Thu					C3-MG C8-SG SM6-KP	C4-MS C10-KP SM6-MG SC6-SH	MS=1 MG=2 SG=1	KP=2 SH=1
Fri					GE2-KP BC2-SH C9-MG SM6-MS	C4-MS GE4-SH SM6-SG	MS=2 MG=1 SG=1	KP=1 SH=2
Sat					C3-MG SM6-MS	GE2-KP BC2-SH GE4-MG SM6-SG	MS=1 MG=2 SG=1	KP=1 SH=1

HOD Economics,

Digboi College, 2021

Course Distribution

Class/Semester			Total Class	Per Head Class per week
HS 2 nd Year	Intro. Macro	SH(1)	3	MS=8
	Eco. Dev	KP(2)		MG=8
2 nd Sem	C3	MG(2) & SG(2) & SH(1)	5	SG=8
	C4	MS	5	KP=9
	GE2	KP	2	SH=9
	BC2	SH	2	
4 th Sem	C8	SG	3	
	C9	MG(2) & SH(1)	3	
	C10	KP	3	
	GE4	MG(1)&SH(1)	2	
6 th Sem	SM601	MS	3	
	SM602	SG	3	
	SM603	MG	3	
	SM604	KP(2)&SH(1)	3	
	SC6	SH	2	

Economics Dept
Offline Routine-2021
(w.e.f. 21th October, 2021)

	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	Remarks	
M	HA1-AT3-MG GE1-C6-SG C5-C7-MS	C6-C7-MG C506-D-MS HC1-C10-SH	HA2-AT2-KP C502-D-SG ME-C9-SH	C1-C6-SG C7-C3-KP	C2-C6-KP GE3-C7-SG C505-D-MG	C501-D-KP HC2-C4-SH	MS=2	MG=3
							SG=4	KP=4
							SH=3	
T	HA2-C9-KP C2-C6-MS GE3-C7-SG	ME-C9-SH C7-C7-KP C506-D-MS	C1-C6-SG C5-C7-MS C501-D-KP	C505-D-MG	GE1-C6-SH C6-C7-MG C502-D-SG	HC1-C10-SH	MS=3	MG=2
							SG=3	KP=3
							SH=3	
W	HA1-AT3-SG C1-C6-MG C7-C7-KP	HC1-C10-MG C5-C7-MS C501-D-KP	ME-C9-SH GE1-C6-SG C6-C7-MG C506-D-MS	C2-C7-MS GE3-C3-SG C505-D-SH	HC2-C4-SH HA2-C10-KP C502-D-SG		MS=3	MG=3
							SG=4	KP=3
							SH=3	
T	HC2-C4-SH C1-C6-MG C7-C7-KP	ME-C9-SH C2-C6-KP GE3-C7-SG C505-D-MG	C6-C7-MG C501-D-KP	GE1-C3-SH C5-C7-MS C502-D-SG	HC1-C9-SH HA1-C10-SG C506-D-MS		MS=2	MG=3
							SG=3	KP=3
							SH=4	
F	C1-C6-MG C7-C7-KP	HA2-AT3-MS C6-C7-MG C501-D-SH	ME-C9-SH C2-C6-MS C505-D-MG	GE3-C7-KP C506-D-MS	HC2-C4-KP GE1-AT3-SG C5-C7-MS	HA1-HALL-MG C502-D-SG	MS=4	MG=4
							SG=2	KP=3
							SH=2	
S	HA1-HALL-SG GE1-C6-SH C6-C7-MG	ME-C9-SH C1-C6-MG C7-C7-KP C502-D-SG	C506-D-MS	C2-C6-MS GE3-C7-KP C501-D-SH	HC1-C10-MG C5-C7-MS C505-D-SH	HC2-C4-KP HA2-M15-MS	MS=4	MG=3
							SG=2	KP=3
							SH=4	

HOD, Economics

Digboi College

Course Distribution among faculty members

Class Code	Faculty	No of Class	Faculty	No of Class	Total Class per week	PER HEAD TOTAL CLASS PER WEEK	
HA1	SG	3	MG	2	5	FACULTY	NOS. OF CLASS ALLOTED
HA2	MS	2	KP	3	5		
HC1	MG	2	SH	3	5	MS	18
HC2	KP	2	SH	3	5	MG	18
C1	MG	4	SG	2	6	SG	18
C2	MS	4	KP	2	6	KP	19
GE1	SG	3	SH	3	6	SH	19
ME	SH	6			6	TOTAL	92
C5	MS	6			6		
C6	MG	6			6		
C7	KP	6			6		
GE3	SG	4	KP	2	6		
C501	KP	4	SH	2	6		
C502	SG	6			6		
C505	MG	4	SH	2	6		
C506	MS	6			6		
Total class					92		

Course distribution for the Even Semester 2022-23, Dept of Economics, Digboi College

Class/Sem	Paper code	Total class	Units to be taken		
HA1		5	SG-(2)	MG-(2)	KP(1)
HA2		5	MG-(2)	KP-(2)	SG(1)
HC1		5	MS-(2)	SH-(2)	KP(1)
HC2		5	MS(2)	SH-(2)	SG(1)
2 ND Sem	C3	6	SG-(3)	MG-(3)	
	C4	6	MS-(6)		
	GE2	6	MG-(3)	SG-(3)	
	ME	6	SH-(6)		
4 th Sem	C8	6	SG(4)	MS-(2)	
	C9	6	MG-(3)	SH-(3)	
	C10	6	KP-(6)		
	GE4	6	MS-(6)		
	IE	6	KP-(2)	SH-(4)	
6 TH Sem	C13(In Eco)	6	MS-(1)	KP(5)	
	C14(Dev)	6	SG-(3)	SH-(3)	
	DSE3(Evn)	6	KP-(3)	SG-(3)	
	DSE4(Inter)	6	MG-(6)		
Allotted Class per head					
	MS	19 hours	Total class=98 hours per week		
	MG	19 hours			
	SG	20 hours			
	KP	20 hours			
	SH	20 hours			

**DEPARTMENT OF EDUCATION
DIGBOI COLLEGE**

EDUCATION
DAILY CLASS ROUTINE 2021

DAY TIME	8.30	9.15	10.00	10.45	11.30	12.15	1.00	1.45	Total
Mon	SEM1M15PG SEM3M12PD	SEM3M15SG SEM3M12PG	SEM3M12SG		SEM3M12PD	SEMMSDPG SEM3M12SG	HS2AT3PG SEM3M12PD	HS1AT1PD SEMMSDNG	PD=4 PG=4 SG=4
Tue	SEM1M15PD SEM3M12SG	SEM1M15PG SEM3M12SG		SEM3M12PD	SEMMSDPG TELG M10SG	SEMMSDPD	SEMMSDNG SEM3P M12PG	HS2AT3PD	PD=4 PG=3 SG=4
Wed	SEM1M15PG SEM3M12SG	SEM1M15PD SEM3M12PG	SEM3M12PD		SEMMSDPD	SEMMSDPG TELG M12SG	SEMMSDPD	SEMMSDPG SEM3P M12SG	PD=4 PG=4 SG=3
Thu	SEM1M15PG SEM3M12PD	SEM1M15SG SEM3M12PG		SEM3M12SG	HS1AT2PG SEMMSDPD	SEMMSDNG	SEMMSDNG	SEMMSDPG TELG M12PD	PD=4 PG=4 SG=4
Fri	SEM1M15SG SEM3M12PG	SEM1M15PG SEM3M12SG	SEM3M12PD		HS2AT3PD SEMMSDPG	HS1AT2SG SEMMSDPD	SEMMSDPG SEM3P M12SG	SEMMSDPD TELG M12PG	PD=4 PG=3 SG=4
Sat	SEM3M12PD	SEM1M15PG SEM3M12SG	SEM1M15PD SEM3M12PG		SEMMSDNG	HS2AT3PG SEMMSDPG SEM3P M12PD	HS1AT2PG SEMMSDPD	SEMMSDNG	PD=4 PG=4 SG=4
PD=23 PG=24 SG=23									70

DEPARTMENT OF EDUCATION, DIGBOI COLLEGE, DIGBOI
DAILY CLASS ROUTINE (wef. 21.10.2021)

	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	TOTAL
Mon	SEM3M11SG	HS2AT2PG SEM3M11PD SEM5D5SG	SEM1M11PD SEM5DPG	SEM3M11PG	SEM1M11SG SEM5DPD	SEM5DPG	PG=4 PD=3 SG=3
Tue	SEM1M11PG SEM5DPD	HS2HALLSG SEM1M11PD SEM5DPG	SEM3M11PD SEM5DPD	SEM5D5SG	HS1AT3PG SEM3M11SG SEM5DPD	-	PG=4 PD=4 SG=3
Wed	SEM1M11SG SEM5DPD	HS2HALLSG SEM5DPG SEM3M11PD	SEM3M11SG SEM5DPG	SEM1M7PD SEM5DPG	SEM5D5SG	HS1AT3PD	PG=3 PD=4 SG=4
Thu	HS2HALLSG SEM1M11PG SEM3M11PD	SEM5D5SG	HS2AT2PD SEM1M11SG SEM5DPG	SEM3M11PG SEM5DPD	SEM3M11SG SEM5DPD	-	PG=3 PD=4 SG=4
Fri	HS2AT3PD SEM1M7PG SEM5D5SG	SEM3M11PD SEM5DPG	SEM1M11SG SEM5DPD	SEM5D5SG	HS2HALLPD SEM3M14PG	SEM5DPG	PG=4 PD=4 SG=3
Sat	SEM3M11PG	SEM1M16SG SEM3M11PD SEM5DPG	SEM5DPD	SEM1M5PG	HS2HALLPG SEM3M11SG SEM5DPD	SEM5D5SG	PG=4 PD=3 SG=3
PD=22 PG=22 SG=20							

DEPARTMENT OF EDUCATION, DIGBOI COLLEGE, DIGBOI
DAILY CLASS ROUTINE (wef. 21.10.2021)

	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00	TOTAL
Mon	SEM3M11SG SEM3M11PD SEM3D5G	HS2AT2PD SEM3M11PD SEM3D5G	SEM3M11PD SEM3D5PD	SEM3M11PD	SEM3M11SG SEM3D5PD	SEM3D5PD	PD-4 PD-3 SG-3
Tue	SEM3M11PD SEM3D5PD	HS2HALL5G SEM3M11PD SEM3D5G	SEM3M11PD SEM3D5PD	SEM3D5G	HS1AT3PG SEM3M11SG SEM3D5PD	-	PD-4 PD-4 SG-3
Wed	SEM3M11SG SEM3D5PD	HS2HALL5G SEM3D5PD SEM3M11PD	SEM3M11SG SEM3D5PD	SEM3M7PD SEM3D5G	SEM3D5G	HS1AT3PD	PD-3 PD-4 SG-4
Thu	HS1HALL5G SEM3M11PD SEM3M11PD	SEM3D5G	HS2AT2PD SEM3M11SG SEM3D5PD	SEM3M12PD SEM3D5PD	SEM3M11SG SEM3D5PD	-	PD-3 PD-4 SG-4
Fri	HS2AT3PD SEM3M7PD SEM3D5G	SEM3M11PD SEM3D5G	SEM3M11SG SEM3D5PD	SEM3D5G	HS1HALLPD SEM3M11PD	SEM3D5PD	PD-4 PD-4 SG-3
Sat	SEM3M11PD	SEM3M11SG SEM3M11PD SEM3D5G	SEM3D5PD	SEM3M3PD	HS1HALLPD SEM3M11SG SEM3D5PD	SEM3D5G	PD-4 PD-3 SG-3
				PD-22 PD-22 SG-28			

DEPARTMENT OF EDUCATION, DIGBOI COLLEGE, DIGBOI
DAILY CLASS DISTRIBUTION, 2022
(From MARCH, 2022 onwards)

DAY/TIME	09.00-10.00	10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	Total
Monday	SEM4-M11-PG	HS2-AT2-PD SEM4-M11-SG SEM6-D-PG	SEM2-M11-SG SEM6-D-PD	SEM4-M11-PD	SEM2-M11-PG SEM6-D-SG	SEM6-D-PD	PG=3 PD=4 SG=3
Tuesday	SEM2-M11-PG SEM6-D-SG	HS2-HALL-PG SEM2M11-SG SEM4-D-PD	SEM4-M11-SG SEM6-D-PD	SEM6-D-PG	HS1-AT3-PD SEM4-C7-PG SEM6-D-SG		PG=4 PD=3 SG=4
Wednesday	SEM2-M11-PD SEM4-D-PG	HS2-HALL-SG SEM4-M17-PD SEM6-D-SG	SEM4-M11-SG SEM6-D-PG	SEM2-M7-PG SEM6-D-PD	SEM6-D-PD	HS1-AT3-SG	PG=3 PD=4 SG=4
Thursday	HS1-HALL-PD SEM2-M15-SG SEM4-M11-PG	Sem6-D-SG	HS2-AT2-PG SEM2-M11-SG SEM6-D-PD	SEM4-M12-SG Sem6-D-PG	SEM4-M11-PD Sem6-D-PG		PG=4 PD=3 SG=4
Friday	HS2-AT2-PD SEM2-M7-SG Sem4-D-PG	Sem4-M11-PD SEM6-D-SG	Sem2-M15-PD SeM6-D-PG	Sem6-D-SG	HS1-Hall-PG Sem4-M16-SG	Sem6-D-PD	PG=3 PD=4 SG=4
Saturday	Sem4-M11-PG	Sem2-M16-PD Sem4-M11-SG SEM6-D-PG	SEM6-D-PD	Sem2-M5-PG	HS1-Hall-PG Sem4-M11-PD SEM6-D-SG	SEM6-D-SG	PG=4 PD=3 SG=3

DEPARTMENT OF EDUCATION

COURSE DISTRIBUTION

EVEN SEMESTER, January-June, 2022

Semester	Paper Code	Name of Paper	Unit	Teacher
Semester- II	EDNH:201	Psychological foundations of education	I & III	Poban Gogoi
			II	Pradip Dutta
			IV	Sneha Gogoi
	EDNH:202	Educational Administration and Management	I & V	Poban Gogoi
			II & III	Pradip Dutta
			IV	Sneha Gogoi
Semester- IV	EDNH:401	Education in Pre-Independent India	All units	Poban gogoi
	EDNH:402	Techniques of Teaching	II	Poban Gogoi
			I	Pradip Dutta
			III	Sneha Gogoi
	EDNH:4020	Teaching Practice	I	Poban Gogoi
			I	Pradip Dutta
			II	Sneha Gogoi
	EDNH:403	Educational Technology	All Units	Pradip Dutta
Semester- VI	EDNH:601	Emerging Trends in Indian Education	All Units	Poban Gogoi
	EDNH:602	Child & Adolescent Psychology	All Units	Sneha Gogoi
	DSEED:603	Gender and Education	All Units	Pradip Dutta
	DSEED:604	Project Report	I	Sneha Gogoi
			II	Poban Gogoi
			II	Pradip Dutta

DEPARTMENT OF ELECTRONICS
DIGBOI COLLEGE



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

e-mail-
electronics.digboicollege@gmail.com
website:
www.digboicollege.edu.in

Ref:

Date: 15 May, 2021

Course Distribution
Session: May 2021- Aug 2021

Faculty Name	semester	Paper to Teach
Dr. Jayanta Handique	2nd	C3
	4th	C8, C10(Unit 1, 2), SEC (Unit-1,2)
	6th	601, 603(Unit 2,3)
Dr. Nabadweep Chamuah	2nd	C4
	4th	C9, C10(Unit 3, 4), SEC (Unit-3,4)
	6th	602, 603(Unit 1, 4)

Dr. Handique



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electronics.digboicollege@gmail.com
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Ref:

Date: 31 August 2021

Course Distribution
Session: Sep 2021- Feb 2022

Faculty Name	semester	Paper to Teach
Dr. Jayanta Handique	1st	C1
	3rd	C5, SEC (Unit-1,2)
	5th	C12
Dr. Nabadweep Chamuah	1st	C2 (Unit 1, 2,4)
	3rd	C6, SEC (Unit-3)
	5th	C11, DSE-2(Unit 2,4)
Mr. Ankit Chetry	3rd	C7, SEC (Unit-4)
	5th	DSE-1, DSE-2(Unit 1,3)

J. Handique



DEPARTMENT OF ELECTRONICS
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website: www.digboicollege.edu.in

DAILY ONLINE CLASSES ROUTINE FOR EVEN SEMESTER, SESSION: 2020-2021
(w.e.f. 20/05/2021)

DAY	CLASS	9:30-10:30	10:30-11:30	11:30-12:30	12:30-1:30
MON	SEM II			C-3 (JH)	C-4 (NC)
	SEM IV			C-9 (NC)	C- 8 (JH)
	SEM VI	ELTM-601 (JH)	ELTM-602(NC)		
TUE	SEM II			C-3 (JH)	C-4 (NC)
	SEM IV			C-9 (NC)	C- 8 (JH)
	SEM VI	ELTM-601(JH)	ELTM-602(NC)		
WED	SEM II			C-3 (JH)	C-4 (NC)
	SEM IV			C-10 (NC)	C- 8 (JH)
	SEM VI	ELTM-602(NC)	ELTM-603(JH)		
THU	SEM II			C-3 (JH)	C-4 (NC)
	SEM IV			C-9 (NC)	C- 10 (JH)
	SEM VI	ELTM-602(NC)	ELTM-603(JH)		
FRI	SEM II				C-4 (NC)
	SEM IV			C-10 (JH)	
	SEM VI	ELTM-603(NC)	ELTM-601(JH)		
SAT	SEM II			C-3 (JH)	
	SEM IV			SEC2 (NC)	
	SEM VI	ELTM-601(JH)	ELTM-603(NC)		

A. Handia

Class Routine: Department of Electronics.



DEPARTMENT OF ELECTRONICS
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DAILY CLASS ROUTINE FOR THE SESSION 2021 (FROM 18/01, 2021)

DAY	CLASS	8.30-9.15	9.15-10.00	10.00-10.45	10.45-11.30	11.30-12.15	12.15-1.00	1.00-1.45	1.45-2.30
MON	SEM - I	Elect-D (c1)- II	Elect-D (c2)- NC						
	SEM - III	Elect-D (c6)- NC	Elect-D (c5)- III	Elect-D (c7)- SG		SEC-9c			
	SEM - V					Elect-(D)-NC	Elect-(D)- II	Elect-(D)- SG	Elect-(D)- SG
TUE	SEM - I	Elect-D (c1)- III	Elect-D (c2)-NC						
	SEM - III	Elect-D (c5)-NC	Elect-D (c6)-SG		Elect-D (c7)-NC	SEC-5G			
	SEM - V					Elect-(D)-NC	Elect-(D)-II	Elect-(D)-NC	Elect-(D)-NC
WED	SEM - I	Elect-D (c1)- III	Elect-D (c2)-SG						
	SEM - III	Elect-D (c7)-NC	Elect-D (c8)-III	Elect-D (c5)-SG		SEC-III			
	SEM - V					Elect-(D)-SG	Elect-(D)-NC	Elect-(D)-III	Elect-(D)-III
THU	SEM - I	Elect-D (c1)-NC	Elect-D (c2)-SG						
	SEM - III	Elect-D (c6)-III	Elect-D (c5)-NC		Elect-D (c7)-III	SEC-5G			
	SEM - V					Elect-(D)-III	Elect-(D)-NC	Elect-(D)-SG	Elect-(D)-SG
FRI	SEM - I	Elect-D (c1)-III	Elect-D (c2)-NC						
	SEM - III	Elect-D (c5)-NC	Elect-D (c6)-SG	Elect-D (c7)-SG		SEC-III			
	SEM - V					Elect-(D)-NC	Elect-(D)-III	Elect-(D)-III	Elect-(D)-III
SAT	SEM - I		Elect-D (c1)-SG	Elect-D (c2)-NC					
	SEM - III	Elect-D (c7)-NC	Elect-D (c6)-III	Elect-D (c5)-III		SEC-III			
	SEM - V					Elect-(D)-NC	Elect-(D)-SG	Elect-(D)-NC	Elect-(D)-NC



DEPARTMENT OF ELECTRONICS
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DAILY OFFLINE CLASSES ROUTINE FOR 3RD SEMESTER (w.e.f. 15/09/2021)

DAY	1:30-2:15	2:15-3:00	3:00-3:45	3:45-4:30
MON	C-6 NC	C-7 NC		SEC JH
TUE	C-5 JH	C-6 JH	C-7 NC	
WED	SEC NC	C-5 JH	C-6 JH	C-7 NC
THU		SEC JH	C-5 JH	C-6 NC
FRI	C-7 NC		SEC NC	C-5 JH
SAT	C-7 NC	C-6 NC		C-5 JH

aj Handia



DEPARTMENT OF ELECTRONICS
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Tinsukia (Assam), India

Email: electronics.dj
Website: www.

DAILY OFFLINE CLASSES ROUTINE FOR 5TH SEMESTER (w.e.f 12/09/2021)

DAY	9:00-9:45	9:45-10:30	10:30-11:15	11:15-12:00	12:00-1:30
MON	C-11 NC	C-12 JH	DSE-1 JH	DSE-2 NC	PRACTICAL
TUE	DSE-2 NC	C-11 NC	C-12 JH	DSE-1 JH	PRACTICAL
WED	DSE-1 JH	DSE-2 NC	C-11 NC	C-12 JH	PRACTICAL
THU	C-11 NC	DSE-2 NC	DSE-1 JH	C-12 JH	PRACTICAL
FRI	C-12 JH	C-11 NC	DSE-1 JH	DSE-2 NC	PRACTICAL
SAT	DSE-1 JH	DSE-2 NC	C-11 NC	C-12 JH	PRACTICAL

By Handwritten



**DEPARTMENT OF ELECTRONICS
DIGBOI COLLEGE**

**Digboi - 786171
Tinsukia (Assam), India**

**Course Distribution
Session: Sep 2021- Feb 2022**

Faculty Name	semester	Paper to Teach
Dr. Jayanta Handique	1st	C1
	3rd	C5, SEC (Unit-1,2)
	5th	C12
Dr. Nabadweep Chamuah	1st	C2 (Unit 1, 2,4)
	3rd	C6, SEC (Unit-3)
	5th	C11, DSE-2(Unit 2,4)
Mr. Ankit Chetry	3rd	C7, SEC (Unit-4)
	5th	DSE-1, DSE-2(Unit 1,3)

**Head
Department of Electronics
Digboi College**



DEPARTMENT OF ELECTRONICS

DIGBOI COLLEGE

Digboi - 786171

Tinsukia (Assam), India

Ref:

Date: 23 March, 2022

Course Distribution Session: March 2022 – June 2022

Faculty Name	semester	Paper to Teach
Dr. Jayanta Handique	2 nd	C3 (All units)
	4 th	C8 (All units), SEC-II (Unit 1, 2)
	6 th	C13 (Unit 3, 4), DSE4 (Unit 1, 2)
Dr. Nabadweep Chamuah	2 nd	C4 (Unit 1, 2)
	4 th	C9 (All units), SEC-II (Unit 3)
	6 th	C13 (Unit 1,2), C14 (Unit 3, 4), DSE-3(All Unit)
Mr. Ankit Chhetri	2 nd	C4 (Unit 3,4)
	4 th	C10 (All Units), SEC-II (Unit 4)
	6 th	C14 (Unit 1, 2), DSE4(Unit 3,4)

Head
Department of Electronics
Digboi College



**DEPARTMENT OF ELECTRONICS
DIGBOI COLLEGE**

Digboi - 786171
Tinsukia (Assam), India

Ref:

Date: 17 August 2022

**Course Distribution
Session: Odd Semester 2022-23**

Faculty Name	semester	Paper to Teach
Dr. Jayanta Handique	1st	C1
	3rd	C5, SEC (Unit-1,2)
	5th	C12
Dr. Nabadweep Chamuah	1st	C2 (Unit 1, 2,4)
	3rd	C6, SEC (Unit-3)
	5th	C11, DSE-2(Unit 2,4)
Mr. Ankit Chetry	1st	C2 (Unit 3)
	3rd	C7, SEC (Unit-4)
	5th	DSE-1, DSE-2(Unit 1,3)

**Head
Department of Electronics
Digboi College**

**DEPARTMENT OF ENGLISH
DIGBOI COLLEGE**

PROCEEDINGS OF DEPARTMENTAL MEETING
DEPARTMENT OF ENGLISH, DIGBOI COLLEGE,

Dated, 02.08.2021. (MONDAY)

Time 1.30 PM

The Meeting started with the President in the chair. The President Mr. Jayantadeep Datta H.O.D explained the objectives of the Meeting. The main objectives of the Meeting are as follows :-

1. Distribution of Syllabus - Semester I, III & V under CBCS
2. CLASS ARRANGEMENT DUE TO Dr. Chandane Chelis's application for Child Care leave of 20 days. w.e.f. 22.11.2021.
3. Class Distribution as per Central Routine.
4. Publication of 2nd Volume of Literary Reminiscence.
5. Formation of New Committee for Publication of Departmental Magazine.
6. Publication of Wall Magazine
7. Celebration of Freshers Social Function
8. Declaration of Sessional Results.
9. Adjustments of Class during teacher's casual leave
10. Selection of Optional Papers in Sem V DSE - 2nos.

Paper XIV

UNIT 1 : (Marks 30) Dr. P. Bhanoli

UNIT II : (Marks 30) Mr. G. Buragohain

UNIT III : (Marks 20) Mr. Sanjoy Das

The meeting ended with vote of thanks from the chair.

~~Dutt~~
10/10/2021
(Jayantadeep Dutt)

~~Dutt~~
24/11/2021

~~Dutt~~
02/10/21

~~Dutt~~
02/11/2021
(Mr. Sanjoy Das)

~~Dutt~~
02/10/2021

~~Dutt~~
02/10/2021

Regarding the syllabus distribution of Semesters I, & III all the Faculty members of the Department agreed to accept the previous syllabus distribution. The Semester V Syllabus distribution is as follows:

FIFTH SEMESTER

COURSE CODE: SO100

COURSE II WOMEN'S WRITINGS

CREDITS ASSIGNED: 6

UNIT I (POETRY)

Emily Dickinson 'I cannot live with you; I'm wife;
I've finished that' Sylvia Plath 'Daddy', 'Lady
Lazarus' Eunice De Souza 'Advice to Women'
Bequest ; Mrs. Baby Pili Phulekar

UNIT II (NOVEL)

Alice Walker. The Color Purple ;
Mrs. Baby Pili Phulekar

UNIT III (SHORT STORY)

Charlotte Perkins Gilman, 'The Yellow Wall Paper' —
Mr. Gauri Buragohain

Katherine Mansfield 'Bliss' ;
Mr. Gauri Buragohain

Mahashweta Devi 'Draupadi' or Gayatri Spivak —
Mr. Gauri Buragohain

UNIT IV: ESSAY/MEMOIR

Mary Wollstonecraft A Vindication of the Rights of
Women (New York, Norton 1988) ;

Mr. Gauri Buragohain

COURSE CODE - 50120
DSE 2 : LITERATURE OF THE INDIAN DIASPORA
CREDITS ASSIGNED : 6 CREDITS

UNIT I

M.G. Vassanji *The Book of Secrets* :
Mr. Jayantadeep Dutt

UNIT II

Rohinton Mistry *A Fine Balance* :
Mr. Jayantadeep Dutt

UNIT III

Meera Syal *Anita & Me* :
Mr. Gauri Bhargava

UNIT IV

Jhumpa Lahiri *The Name Sake* :
Mrs. Babey Rishi Phukan.

COURSE CODE : 50130

DSE 3 : LITERARY CRITICISM
CREDITS ASSIGNED : 6 CREDITS

UNIT I

William Wordsworth "Preface" to the *Lyrical Ballads* (1802)
- Mr. Sanjoy Das

S.T. Coleridge : *Biographia Literaria* Chapters IV, XIII & XIV
- Mr. Sanjoy Das

UNIT II

Virginia Woolf *Modern Fiction*

- Mr. Sanjoy Das

T.S. Eliot *Tradition & the Individual Talent* - Mr. J.D. Das

The Function of Criticism : Dr. P. Bharali

Mr. Jayantadeep Dutt

DEPARTMENTAL MEETING HELD ON 21.12.21
AT THE DEPT. OF ENGLISH, DIBROL COLLEGE
M I N U T E S

Dated 21.12.2021 (Tuesday)
Time 2 PM

The meeting started with the President on the chair, where he related the objectives of the meeting.

Participation of students in the college week cultural show competition (Rally); Participation in the wall magazine competition; Publication and Inauguration of departmental literary magazine.

Following Resolutions were taken :-

- (1) Inauguration of literary magazine departmental 'Literary Remuneration' to be INNAUGURATED on the day of the Prize distribution ceremony of the college week in presence of Principal Dr. Dip Sainie and other dignitaries in the dias.
- (2) Mrs Babystu Phukon would be the Professor-in-charge of the wall magazine as well as the cultural show (Rally competition) to be held during the college week.
- (3) The college assured that it would sanction Rs 10,000/- (Rupees Ten thousand only) for the publication of the departmental magazine, and the rest of the amount would be borne by the

Faculty members. Mr. Sanjay Das Professor in-charge of the second issue informed the colleagues that the total expenditure for 150 number of copies would be Rs. 24000.00 Amount of students contribution Rs. 6000.00 especially Sixth Semester B.A. Passed out 2021 students. The detail of the Magazine expenditure is appended below :

COST OF THE MAGAZINE	:	Rs. 24000.00
COLLEGE CONTRIBUTION	:	Rs. 10000.00
		Rs. 14000.00
CONTRIBUTION STUDENTS	:	Rs. 6000.00
AMOUNT TO BE DIVIDED		Rs. 8000.00
AMONG SIX (6) FACULTIES		
AMOUNT TO BE CONTRIBUTED		
BY EACH FACULTY	:	Rs. 1335.00

(One thousand three hundred thirty five only)
Mr. Sanjay Das Assistant Professor Dept. of English suggested that the Departmental Magazine 'Literary Reminiscence' may be printed at Suravi Flex Printing Borbil No. 1, Digboi as the rate of Printing charge is reasonable compared to other quotations supplied by Sankha Press Old LIC Road and Assam Printers Tinsukia.

The meeting resolves to print the departmental Magazine at Suravi Flex Printing Borbil No. 1, Digboi.

The meeting also resolves that the third annual issue of Literary Reminiscence would be published by July 2022 and the Dr. Mrs Chandane Chetia would be the Professor in-charge in this regard. The Editor of the issue would be selected from among

The semester V students in the next meeting.

Further the HOD of the Department apposed the teachers to set Question Papers of sessional exam and evaluate the same immediately.

The meeting ended with the vote of thanks from the chair.

~~July~~
21/12/2021
(Sangantadesp Dulle)

~~21/12/2021~~

~~21/12/2021~~
(Sangantadesp Dulle)

~~21/12/2021~~

~~21/12/21~~

~~21/12/2021~~

DEPARTMENT OF ENGLISH

PROCEEDINGS OF THE MEETING HELD ON 10.02.2022
DEPARTMENT OF ENGLISH, DIGBOI COLLEGE, DIGBOI

The Meeting of the Department of English held on 10.02.2022 took the following resolutions

(1) Distribution of Sixth Semester syllabus CBCS among the teachers are as follows :-

SIXTH SEMESTER

COURSE CODE : 60100

COURSE IS : MODERN EUROPEAN DRAMA

CREDITS ASSIGNED : 6 CREDITS

UNIT I REALIST DRAMA

Henrik Ibsen, Ghosts : Mr. Jayantadeep Dutta

UNIT II EPIC THEATRE

Bertolt Brecht, The Good Woman of Szechuan :
Mr. Sanjoy Das

UNIT III ABSURD DRAMA

Samuel Beckett, Waiting for Godot :
Dr. Mrs. Chandana Chetia

UNIT IV : AVANT-GARDE DRAMA

Eugene Ionesco, Rhinoceros :
Dr. Pabitra Bhanali

~~Here Meeting decided to~~

The Meeting decided to choose the following options in DSE Sixth Semester (TWO PAPERS)

1. DSE : 5 LITERARY THEORY
COURSE : 60110

2. DSE : 7 PARTITION LITERATURE
COURSE CODE : 60130

COURSE CODE : 60110

DSE 5 LITERARY THEORY

CREDITS ASSIGNED : 6 CREDITS

UNIT 1 MARXISM

a. Antonio Gramsci : 'The Formations of the Intellectuals' and Hierarchy (Civil Society) and Separation of Powers' in Selections from the Prison Note books ed & tr. — Mr. G. Buragohain

b. Louis Althusser, 'Ideology and Ideological State Apparatuses' in Lenin & Philosophy and other Essays — Mr. Gauri Buragohain

UNIT II: FEMINISM

a. Elaine Showalter, Twenty Years on : A Literature of Their Own Revisited, in A Literature of Their Own : British Women Novelists from Bronte to Lessing

Ms. Baby Riti Phukan

b. Luce Irigaray 'When the Goods Get Together' From This Sex which is Not One), in New French Feminisms, ed Elaine

Marks and Isabelle de Courtivron —
Mrs. Baby Ritu Phelon

UNIT III : POSTSTRUCTURALISM

(a) Jacques Derrida, 'Structure, Sign and Play in the Discourse of the Human Science' tr. Alan Bass in Modern Criticism and Theory : A Reader —

Dr. Pabitra Bherali

(b) Michel Foucault, 'Truth and Power', in Power and Knowledge tr Alessandro Fontana and Pasquale, Pasquino —

Dr. Pabitra Bherali

UNIT IV POSTCOLONIAL STUDIES

a) Mahatma Gandhi 'Passive Resistance' & 'Education', in Hind Swaraj and other writings — Mr. Jayantadeep Dutt

b) Edward Said, 'The Scope of Orientalism' in Orientalism — Mr. Jayantadeep Dutt

c) Aijaz Ahmed "Indian Literature", Notes towards the Definition of a Category in In Theory : Classes, Nations, Literature — Mr. Jayantadeep Dutt

COURSE CODE : 60130

DSE 7 PARTITION LITERATURE

CREDITS ASSIGNED : 6 CREDITS

UNIT I

Intizar Husain Basli tr. Frances W. Pritchett
- Dr. Mrs. Chandana Chetia

UNIT II

Amitav Ghosh, The shadow lines
Mrs. Baby Ritu Phukon

UNIT III

- (a) Dibyendu Palit 'Alam's Own House'
Mr. Jayantadeep Dutta
- (b) Manik Bandyopadhyay, The Final Solutions
Dr. Prabir Bherali
- (c) Sa'adat Husain Mani, 'Toba Tek Singh' in
Black Mergins Dr. Mrs. Chandana Chetia
- (d) Lalithambika Antharajan 'A Leaf in the
Storm'
Dr. Mrs. C. Chetia

UNIT IV

- (a) Fiaz Ahmad Fiaz 'For Yours Lanes My
Country' - Mr. Jayantadeep Dutta
- (b) Jibananda Das 'I Shall Return to This
Bengal' - Dr. Prabir Bherali
- (c) Gubad 'Toba Tek Singh' tr. Anisur
Rahman in Translating Partition:
Dr. Mrs. Chandana Chetia

Department of Geography

**COURSE DISTRIBUTION
DEPT. OF GEOGRAPHY
2021 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>

COURSE DISTRIBUTION
DEPT. OF GEOGRAPHY
2021 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>

SEMESTER: - VI (NON-CBCS)

PAPER -GGRG-601: REGIONAL GEOGRAPHY OF THE WORLD	SANGEETA BORUAH SAIKIA	NARENDRA KR. DAS
UNIT:-i Asia (Marks-24)	<p>i. Physiography, Soil, Climate, Vegetation, Minerals and Agricultural Resources, major industries.</p> <p>ii. Distribution of Population.</p>	
Unit :- II Europe (Marks-24)		<p>i. Physiography, Soil, Climate, Vegetation, Minerals and Agricultural Resources, major industries.</p> <p>ii. Distribution of Population.</p>

**COURSE DISTRIBUTION
DEPT. OF GEOGRAPHY
2020 ODD SEMESTER**

SEMESTER: - I (CBCS)

	Dr. Sangeeta Boruah Saikia	Mr. Narendra Kr. Das
Paper GGRG-101AT6: Disaster Management	I. Disasters: Definition & Concepts: Hazards, Disasters; Risk and Vulnerability; Classification. II. Disasters In India (a) Flood : Causes, Impact, Distribution and Mapping; Landslide; Causes, Impact, Distribution and Mapping; Drought: Causes, Impact , Distribution and Mapping.	I. Disasters in India (b) Earthquake and Tsunami: Causes , Impact , Distribution and Mapping; Cyclone; Causes, Impact, Distribution and Mapping. II. Manmade Disasters: Causes, Impact, Distribution and Mapping. 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.

SEMESTER: - III (CBCS)

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

SEMESTER: - V (NON-CBCS)

paper – 501 economic geography,	Sangeeta Boruah Saikia	Narendra Kr. Das
Unit-I introduction.		Economic geography: Introduction economic activities in plains and hills of NE India, Economic activities versus environmental problems, Natural resources and thier classification, World distribution of Iron, Coal, Petroleum, Gold, Copper, Aluminium, Hydro-electricity in North-East India Prospects and Problems.
Unit-II Industries.	Industry: Types Location factors of Iron and steel industry, Cotton textiles and Chemical industries. World distribution of rice, wheat, tea, coffee, Cotton, Jute and Rubber.	

Routine Geography.

Daily class Routine

Day	9:00- 9:45	9:45- 10:30	10:30-11:15	10:30- 12:30	12:30- 1:30
Monday			H.S. 2nd (SBS)		
Friday	H.S. 2nd (NKD)			2nd Sem (NKD) 6th Sem (SBS)	4th Sem (SBS)
Saturday	H.S. 2nd (NKD)				2nd (SBS) 4th (NKD) 6th (NKD)

	<u>Time</u> <u>III Sem</u>	<u>Table of</u> <u>2 H.S. 2nd yr.</u>
Monday	10:00 - 10:45 <u>III Sem (SBS)</u>	11:15 - 12:00 <u>H.S. 2nd (NKD)</u>
Tuesday	11:00 - 10:45 <u>III Sem (NKD)</u>	12:00 - 12:45 <u>H.S. 2nd (SBS)</u>
Wednesday	12:00 - 12:45 <u>III Sem (SBS)</u>	1:30 - 2:15 <u>H.S. 2nd yr.</u> <u>(NKD)</u>
Thursday	12:00 - 12:45 <u>III Sem - (NKD)</u>	1:30 - 2:15 <u>H.S. 2nd yr.</u> <u>(SBS)</u>
Friday	10:00 - 10:45 <u>III Sem - (SBS)</u>	9:00 - 9:45 <u>H.S. 2nd yr.</u> <u>(NKD)</u>
Saturday	11:00 - 11:45 <u>III Sem (NKD)</u>	10:00 - 11:15 <u>H.S. 2nd yr.</u> <u>(SBS)</u>

Date Distribution - 2020-21								
Department of Geography (Add Semester)								
Date	10.01.2021	11.01.2021	12.01.2021	13.01.2021	14.01.2021	15.01.2021	16.01.2021	17.01.2021
Mon	5 th Sem (NKD)			3 rd Sem (D) (NKD)			H.S. 2 nd Year (SBS)	H.S. 2 nd Year (SBS)
Tue		3 rd Sem (D) (NKD)		H.S. 3 rd Year (M-11) (SBS)			1 st Sem (D) (NKD)	1 st H.S. (2 nd Year) (SBS/NKD)
Wed			H.S. 1 st Year (M-11) (SBS)	H.S. 2 nd Year (NKD)	3 rd Sem (D) (NKD)			
Thu	H.S. 2 nd Year (D) (SBS)	3 rd Sem (D) (NKD)			H.S. 1 st Year (M-11) (SBS)			
Fri					H.S. 2 nd Year (M-11) (NKD)		1 st Sem (M-11) (SBS)	
Sat	3 rd Sem (D) (NKD)	H.S. 1 st Year (M-11) (SBS)	H.S. 2 nd Year (D) (NKD)	3 rd Sem (D) (NKD)				

Digboi College
Daily Class Routine of Online Classes for H.S. & Degree 3rd, 5th sem (Arts)
Geography 2020-21

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10 AM	5 th sem (NKD)			H.S. 1 st (NKD)	H.S. 2 nd (NKD)	
11 AM			H.S. 1 st (NKD)			
12 AM		H.S. 2 nd (SBS)		H.S. 2 nd (SBS)	5 th sem (SBS)	H.S. 1 st (SBS)
01 PM		3 rd sem (NKD)	3 rd sem (SBS)			

COURSE (SYLLABUS) DISTRIBUTION
DEPT. OF GEOGRAPHY
2022 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>

Sangeeta

Class Distribution - 2021-22 (Even Sem)

Department of Geography

Day	08.00-09.00	09.00-10.00	10.00-11.00	11.00-12.00	12.00-01.00	01.00-02.00	02.00-03.00	03.00-04.00
Mon		GE-201 Dept (SBS)		GE 401 M-6 (NKD)		H.S.1st Year M-13(NKD)	H.S 2nd M-11(!SBS)	
Tues	Remedial Class(GE-201 SBS)	GE 401 M-12(NKD)		H.S.1st Year (M-7) SBS		GE-201 M-4(NKD)	2nd Year M-11 (SBS)	Practical H.S.1st /H.S.2nd(NKD/SBS)
Wed	Environmental Education H.S 1st Year M-3 (SBS/NKD)		H.S.1st Year M-11 (SBS)	H.S.2nd Year(NKD) M-16	GE- 401 M-11(SBS)			
			GE201 Dept(NKD)					
Thu	Remedial Class(GE-401 NKD)	H.S.2nd Year(SBS) M-5	GE.401 M-13(NKD)		H.S.1st YearM-11(NKD)			
					GE 201 - Dept(SBS)			
Fri	Remedial Class (GE-401 SBS)				H.S.2nd Year (NKD)	GE201 M-11(SBS)		
					GE 401 M-11(SBS)			
Sat	Remedial Class(GE-201 NKD)	GE201 (NKD)	H.S 1st yearM-7(NKD)	H.S 2nd Year (NKD) AT-2	GE 401 M-7(SBS)			

Dr. Sangeeta Boruah Saikia 14 classess per week

Mr. Narendra Kr. Das 14 classess per week

**DEPARTMENT OF HISTORY
DIGBOI COLLEGE**

DEPARTMENT OF HISTORY (COURSE DISTRIBUTION)

SESSION-2022

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(3.03)

A.Neog : Unit III(3.04) – Unit V

**CLASS ROUTINE OF THE DEPARTMENT OF HISTORY,
DIGBOI COLLEGE, 2022**

	9.00-10.00	10.00-11.00	11.00-12.00	12.00-1.00	1.00-2.00	2.00-3.00
Mon	Semester II (M9) A. Neog			H.S.II(M9) A.Neog	Semester- IV(M9) P.K.Narah	H.S.I (M9) P.K.Narah
Tue	H.S.I (M9) A.Neog Semester IV (AT3) P.K.Narah				Semester-II (M9) P.K.Narah	
Wed		SemesterII (M9) P.K.Narah	H.S.I(M9) A.Neog	H.S.II (AT2) P.K.Narah Semester- IV(M9) A.Neog		
Thur		H.S.II (AT3) P.K.Narah Semester- IV(M6) A.Neog		Semester- II (M9) A.Neog		
Fri		H.S.I(M9) P.K.Narah		Semester- IV(M9) A.Neog	Semester-II (M9) P.K.Narah H.S.II (M5) A.Neog	
Sat	Semester-II (M9) A.Neog		H.S.I (M9) P.K.Narah	H.S.II (M9) A.Neog Semester- IV(AT2) P.K.Narah		

Distribution Classwise : Total Classes =22

A. Neog:
T.D.C. 2nd Semester- 3
T.D.C. 4th Semester - 3
H.S. I - 2
H.S. II - 3

P.K.Narah
T.D.C.2nd Semester-3
T.D.C.4th Semester-3
H.S. I - 3
H.S. II - 2

DEPARTMENT OF MATHEMATICS
DIGBOI COLLEGE

Course Distribution:: Dept. of Mathematics, Digboi College, Session 2020-21:: EVEN Sem & HS1,2 wef 15.05.2021

Class	Subject	Sir	M	Class	Units	Sir	M
HS I Math SC/A/Com	Unit-I: Set, Relations & Functions	MB	18	HS 2 Math Sc/A/Com	Unit-I: Relations & Functions	MB	6
	Unit-V:Mathematical reasoning	MB	3		Unit-II: Inverse Trigonometric Fun	MB	4
	Unit-II:Binomial Theorem	BC	10		Unit-III:Matrices	MB	7
	Unit-IV:Calculus	BD	6		Unit-IV:Determinant	MB	6
	Unit-VI:Statistics	BD	6		Unit-V: Continuity & Differentiability	BD	10
	Unit-I:Trigonometry	BD	11		Unit-VI: Application of Derivative	BD	6
	Unit-III: Coordinate geometry 2D&3D	JL	13		Unit-VII: Integration	BD	14
	Unit-II: Mathematical induction,Linear inequalities, Permutation Combination	BC	20		Unit-VIII: Application of Integral Unit-IX: Differential Equation	BD BC	6 8
	Unit-II: Complex Nos., Quadratic Equation, Sequences & Series	BC	7		Unit-X,XI,XII: Vector Algebra, 3D and Linear Programming	JL	23
	Unit-VI:Probability	BC	6		Unit-XIII:Probability	BC	10
SEM II (H)	COURSE CODE:C3(Real Analysis)			SEM II (C)	COURSE CODE:GE2(Diff. Equation)		
	UNIT-1	BD	30		(A) UNIT-1	BC	16
	UNIT-2	BC	25		(B) UNIT-2	BC	20
	UNIT-3	BC	25		(C) UNIT-3	MB	16
	COURSE CODE:C4(Diff. Equation)				(D) UNIT-4	MB	16
	UNIT-1 TO UNIT-4	JL	60		(E) UNIT-5	MB	12
	PRACTICAL	JL	20				
SEM IV(H)	COURSE CODE:C8(Numerical Meth.)			SEM IV(GE)	COURSE CODE:-GE4(Algebra)		
	UNIT-1 TO UNIT-6	JL	60		UNIT-1	MB	28
	PRACTICAL	JL	20		UNIT-2	MB	28
	COURSE CODE:C9(Rieman Inte. etal)				UNIT-3	BD	24
	UNIT-1	MB	5				
	UNIT-2	MB	25				
	UNIT-3	JL	10				
	UNIT-4 & UNIT-5	BC	40				
	COURSE CODE:C10(Ring Th. & Lin. Al.)						
	UNIT-1	MB	20				
	UNIT-2	MB	15				
	UNIT-3	BD	15				
	UNIT-4	BD	30				
SEM VI(M)	Paper-MM601			SEM VI(P)	Paper-NM601		
	(A)Metric Space	BD	40		(A) Discrete mathematics	BD	45
	(B)Statistics	BC	40		(B)Metric Space	BD	35
	Paper-MM602			SEM IV	Business Mathematics		
	(A) Discrete mathematics	BD	45	Comm.	UNIT-1	MB	
	(B) Graph Theory	MB	35		UNIT-2	BD	
	Paper-MM603				UNIT-3	BC	
	(A) Algebra II	MB	40		UNIT-4	BD	
	(B) Partial Differential Equation	BC	40		UNIT-5	BC	
	Paper-MM604(GR.B)						
	(A) Space Dynamics	JL	40		Marks not included on syllabus		
	(B) Relativity	JL	40				

1. DR. JATINDRA LAHKAR(JL)
2. MR. MUKUL BURAGOHAIN(MB)
3. DR. BINOD CHETRI(BC)
4. DR. BISWAJIT DAS (BD)

Dr. J. Lahkar
HoD, Maths

Course Distribution:: Dept. of Mathematics, Digboi College, Session 2021-22:: ODD Sem & HS1,2 w.e.f. 21.10.2021

Class	Subject	Sir	M	Class	Units	Sir	M
HS I Math SC/A/Com	Unit-I: Set, Relations & Functions	MB	18	HS 2 Math Sc/A/Com	Unit-I: Relations & Functions	MB	6
	Unit-V:Mathematical reasoning	MB	3		Unit-II: Inverse Trigonometric Fun	MB	4
	Unit-II:Binomial Theorem	BC	10		Unit-III:Matrices	MB	7
	Unit-IV:Calculus	BD	6		Unit-IV:Determinant	MB	6
	Unit-VI:Statitics	BD	6		Unit-V: Continuity & Differentiability	BD	10
	Unit-I:Trigonometry	BD	11		Unit-VI: Application of Derivative	BD	6
	Unit-III: Coordinate geometry 2D&3D	AC	13		Unit-VII: Integration	BD	14
	Unit-II: Mathematical induction,Linear inequalities, Permutation Combination	BC	20		Unit-VIII: Application of Integral Unit-IX: Differential Equation	BD BC	6 8
	Unit-II: Complex Nos., Quadratic Equation, Sequences & Series	BC	7		Unit-X,XI,XII: Vector Algebra, 3D and Linear Programming	AC	23
	Unit-VI:Probability	AC	6		Unit-XIII:Probability	BC	10
SEM I (H)	COURSE CODE:C1(Calculus)			SEM II (C)	COURSE CODE:GE1(Diff. Calculus)		
	UNIT-1 To UNIT-4 PRACTICAL	JL JL	60 20		(A) UNIT-1 (B) UNIT-2 (C) UNIT-3	BD BC BC/ BD	30 20 30
	COURSE CODE:C2(Algebra)						
	UNIT-1 & UNIT-2 UNIT-3 & UNIT-4	AC BD	35 45				
SEM III(H)	COURSE CODE:C5(Th. of Real func.)			SEM III(GE)	COURSE CODE:-GE3(Real Anlysis)		
	UNIT-1 TO UNIT-3	BD	80		UNIT-1 UNIT-2 UNIT-3 UNIT-4	AC BC AC BC	20 20 20 20
	COURSE CODE:C6(Group Theory I)						
	UNIT-1 TO UNIT-5	MB	80				
	COURSE CODE:C7(PDE and System of ODE)						
	UNIT-1 TO UNIT-4 PRACTICAL	JL JL	60 20				
SEM V(H)	COURSE CODE:C11 Multivariate Calculus	BC	80				
	COURSE CODE:C12 Group Theory II	MB	80				
	COURSE CODE:DSE-1 Analytical Geometry	JL	80				
	COURSE CODE:DSE-2 Number Theory	AC	80				

1. DR. JATINDRA LAHKAR(JL)
2. MR. MUKUL BURAGOHAIN(MB)
3. DR. BINOD CHETRY(BC)
4. DR. BISWAJIT DAS (BD)
5. DR. ARJUN SINGH CHETRY(AC)

Dr. J. Lahkar
HoD, Maths

Department of Mathematics
Digboi College
Course Distribution
Session January To May 2022

Course Distribution:: Dept. of Mathematics, Digboi College, Session 2021-22:: EVEN Sem & HS1,2 wef
14/24.03.2022

Class	Subject	Sir	M	Class	Units	Sir	M
HS I Math SC/A/Com	Unit-I: Set, Relations & Functions	MB	17	HS 2 Math Sc/A/Com	Unit-I: Relations & Functions	BC/M	6
	Unit-II: Sequences & Series	MB	7		Unit-II: Inverse Trigonometric Fun	BC	4
	Unit-II: Permutation Combination, Binomial Theorem	BC	14		Unit-III: Matrices	JL	7
	Unit-IV: Calculus	BC	6		Unit-IV: Determinant	JL	6
	Unit-VI: Statistics and Probability	BC	12		Unit-V: Continuity & Differentiability	MB	10
	Unit-I: Trigonometry	BC	12		Unit-VI: Application of Derivative	MB	6
	Unit-III: Coordinate geometry 2D&3D	AC	13		Unit-VII: Integration	MB	14
	Unit-II: Mathematical Induction, Linear Inequalities	AC	9		Unit-VIII: Application of Integral Unit- IX: Differential Equation	JL/BC	6 8
	Unit-II: Complex Nos. and Quadratic Equation	BC	7		Unit-X,XI,XII: Vector Algebra, 3D and Linear Programming	JL/ AC	23
	Unit-V: Mathematical reasoning	AC	3		Unit-XII: Probability	BC	10
SEM II (H)	COURSE CODE:C3(Real Analysis)			SEM II (C)	COURSE CODE:GE2(Diff. Equation)		
	UNIT-1	AC	30		(A) UNIT-1	BC	16
	UNIT-2	AC	30		(B) UNIT-2	BC	20
	UNIT-3	AC	20		(C) UNIT-3	BC	16
	COURSE CODE:C4(Diff. Equation)				(D) UNIT-4	AC	16
	UNIT-1 TO UNIT-4	JL	60		(E) UNIT-5	AC	12
	PRACTICAL	JL	20				
SEM IV(H)	COURSE CODE:C8(Numerical Meth.)			SEM IV(GE)	COURSE CODE:-GE4(Algebra)		
	UNIT-1 TO UNIT-6	JL	60		UNIT-1	MB	28
	PRACTICAL	JL	20		UNIT-2	MB	28
	COURSE CODE:C9(Rieman Inte. etal)				UNIT-3	MB	24
	UNIT-1	BC	5	SEM IV Comm.	Business Mathematics	MB AC BC AC BC	
	UNIT-2	BC	25				
	UNIT-3	BC	10				
	UNIT-4 & UNIT-5	BC	40				
	COURSE CODE:C10(Ring Th. & Lin. Al.)						
	UNIT-1	MB	20				
	UNIT-2	MB	15		UNIT-1	MB	
	UNIT-3	AC	15		UNIT-2	AC	
	UNIT-4	AC	30		UNIT-3	BC	
					UNIT-4	AC	
					UNIT-5	BC	
SEM VI(H)	COURSE CODE:C13						
	Metric Spaces	AC	35				
	Complex Analysis	AC	45				
	COURSE CODE:C14						
	Ring Theory	MB	30				
	Linear 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 BURAGOHAIN(MB)
3. DR. BINOD CHETRY(BC)
4. DR. ARJUN SINGH CHETRY (AC)

Lahkar


Dr. J. Lahkar
HoD, Maths

Department of Mathematics
Digboi College, Digboi

DAILY CLASS ROUTINE OF DEPARTMENT OF MATHEMATICS, DIGBOI COLLEGE FOR THE SESSION 2021-2022, EVEN SEM (W.E.F. 14/24/03/2022)

DAY/TIME	CLASS	8:00 - 9:00	9:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 1:00	1:00 - 2:00	2:00 - 3:00
MON	HS I		Com-C10-NT	Sc/A-M2-BC				AC-3
	HS II					Com-C4-MB	Sc/A-M15-BC	NT-0
	SEM-II	C4-D-JL	GE-M15-BC		C4-D-JL		C3-D-AC	BC-3
	SEM-IV	SEC	C10-D-MB	C8-D-JL	C409-C1- AC	C9-D- BC	GE-M5-MB	MB-3
	SEM-VI	REMEDIAL-AC	DSE3-D-JL	C14-D-MB	DSE4-D-BC	C13-D-AC		JL-4
TUE	HS I			Com-C10-MB Sc/A-M2-AC				AC-3
	HS II					Com-C4-AC Sc/A-M15-MB		NT-0
	SEM-II	REMEDIAL-NT	C3-M15-AC		C4-D-JL		GE-M5-BC	BC-4
	SEM-IV	REMEDIAL-JL	GE-D-MB, C409-C1-BC	C9-D-BC		C8-D-JL	C10-D-AC	MB-2
	SEM-VI	REMEDIAL-MB	DSE3-D-JL	C13-D-AC	DSE4-D-BC	C14-D-MB		JL-3
WED	HS I						Com-C9-BC Sc/A-M2-NT	AC-3
	HS II							NT-0
	SEM-II	PR C4-JL	C4-D-JL	GE-M15-AC		C3-D-AC		BC-2
	SEM-IV	REMEDIAL-MB	C10-D-MB	C8-D-JL	C9-D-BC, C409-C1-MB	GE-M10-MB		MB-4
	SEM-VI	REMEDIAL-BC	DSE4-PSC-BC	C14-D-MB	C13-D-AC	DSE3-D-JL		JL-3, PR-1
THU	HS I							AC-4
	HS II				Com-C4-NT	Sc/A-M15-NT		NT-0
	SEM-II	PR C4-JL	C4-D-JL		C3-D-AC	GE-M5- BC		BC-3
	SEM-IV	REMEDIAL-NT	C10-D-AC	GE-M15-MB, C8-D-JL	C9-M15-BC		C409-C1-AC	MB-2
	SEM-VI	REMEDIAL-AC	C14-PSC-MB	DSE4-D-BC	DSE3-D-JL	C13-D-AC		JL-3, PR-1
FRI	HS I					Com-C10-AC Sc/A-M2-BC		AC-3
	HS II	Sc/A-M15-JL		Com-C4-BC				NT-0
	SEM-II	REMEDIAL-BC	C4-D-JL	C3-M15-AC			GE-D-AC	BC-2
	SEM-IV	SEC		C10-D-MB	C9-D-BC, C409-C1-MB	GE-M10-MB	C8-D-JL	MB-4
	SEM-VI	REMEDIAL-NT	C14-D-MB	DSE4-D-BC	DSE3-D-JL	C13-D-AC		JL-3
SAT	HS I							Com-C10-AC Sc/A-M2-MB
	HS II		Sc/A-M15-BC	Com-C4-NT				AC-4, NT-0
	SEM-II	REMEDIAL-AC	GE-M5-AC		C3-D-AC	C4-D-JL	X	BC-3
	SEM-IV	PR C8-D-JL	C8-D-JL	C9-D-BC		GE-M10-MB	C10-D-AC, C409-C1- BC	MB-2
	SEM-VI	REMEDIAL-MB	C14-D-MB	DSE3-D-JL	DSE4-D-BC	C13-D-AC		JL-3, PR-1

Sc/A-Science and Arts, Comm-Commerce, D-Department, M-Main Building, C-Commerce Building, PR-Practical, GE- General Elective
 JL → Dr. J. Lahkar, MB → Mr. M. Buragohain, BC → Dr. Binod Chetry, NT → New Teacher, AC → Dr. Arjun Singh Chetry.

Dr. J. Lahkar
 HOD, Math
 

 Department of Mathematics
 Digboi College, Digboi

DEPARTMENT OF PHYSICS
DIGBOI COLLEGE

Department of Physics

**Digboi College
SESSION:2021-2022
ODD SEMESTER**

COURSE DISTRIBUTION		
B. SC. 1ST SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
CI	MATHEMATICAL PHYSICS I	RP+SKG
C II	MECHANICS	KK + DKK
GE 1	MECHANICS	KK + DKK
B. SC. 3RD SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
PHYSICS-C V	MATHEMATICAL PHYSICS II	RP
PHYSICS C VI	THERMAL PHYSICS	DKK
PHYSICS C VII	DIGITAL SYSTEMS AND APPLICATIONS	KK
PHYSICS GE 3	THERMAL PHYSICS AND STATISTICAL MECHANICS	DK+SKG
B. SC. 5TH SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
PHYSICS-C-XI	QUANTUM MECHANICS	DKK
PHYSICS-C-XII	CONDENSED MATTER PHYSICS	SB+DK
PHYSICS-DSE-I	CLASSICAL MECHANICS	SKG
PHYSICS-DSE-2	PHYSICS OF DEVICES AND INSTRUMENTS	KK
PHYSICS-DSE-2	ASTRONOMY AND ASTROPHYSICS	RP
M. SC. 1ST SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
PH C-I	MATHEMATICAL PHYSICS	RP + SKG
PH C-V	QUANTUM MECHANICS	DKK
PH DSE-IB	ATMOSPHERIC PHYSICS	SB
AEC-IE	NANO-STRUCTURED MATERIALS	KK+DKK
GE 205	MATERIALS CHEMISTRY	AM
M. SC. 3RD SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
PH C-VII	ELECTRONICS	RP
PH C-VIII	ELECTRODYNAMICS	DKK
PH C-IX	COMPUTATIONAL METHODS	KK
PH DSC-III-B	CONDENSED MATTER PHYSICS I	SB + DK
PH DSC-III-C	COMMUNICATION ELECTRONICS	NC
GE-305	GREEN AND SUSTAINABLE CHEMISTRY	AM

1. Dr. R. Patowary: (RP)

2. Dr. K. Konwar: (KK)

3. Dr. D. K. Kuri: (DKK)

4. Dr. S. Bhuyan: (SB)

4. Dr. A. Mahanta: (AM) * Dr. Abhijit Mahanta (Dept. of Chemistry); Dr. Nabadeep Chamua (Dept. of Electronics)

Rashmi Patowary

HOD, Department of Physics

**Department of Physics
Digboi College
From January to June, 2022**

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
C IX	ELEMENTS OF MODERN PHYSICS	DKK
C X	ANALOG SYSTEMS AND APPLICATIONS	KK
GE 4	WAVES AND OPTICS	RP + SB
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	DK + KK
M. SC. 2ND SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
PH C-IV	CLASSICAL MECHANICS	DKK
PH C-V	CONDENSED MATTER PHYSICS	SB
PH C-VI	GENERAL LAB	KK
PH DSC IIA	PLASMA PHYSICS	RP
GE 205	MATERIALS CHEMISTRY	AM
M. SC. 4TH SEMESTER (CBCS)		
Paper Code	TITLE	Name of Faculty
C-X	Nuclear Physics	RP
C-XII	Atomic & Molecular Physics	DKK
C-XI	Statistical Mechanics	SKG
DSE IV	B. Condensed Matter Physics II C. Digital and Optical Electronics	SB +DK KK
DSE V	B. Condensed Matter Physics Lab C. Electronics Lab	SB +DK KK

* 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 |
| 4. Dr. Abhijit Mahanta (AM): 02 | |

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	
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): | |

Department of Physics, Digboi College
Class Routine (From 24th March, 2022) (Even Semesters)

Day	Class	Time 8.00 – 9.00	Time 9.00 – 10.00	Time 10.00 – 11.00	Time 11.00 – 12.00	Time 12.00 – 1.00	Time 1.00 – 2.00	Time 2.00 – 3.00	Time 3.00 – 4.00
MONDAY	HS I						PHY M2		
	HS II								
	SEM 2	REMEDIAL	PYH GE		PHY C3	PHY C4 LAB	PHY C4 LAB		
	SEM 4		PHY C8 LAB	PHY C9 PHY C8 LAB		PHY C10	PHY GE LAB	PHY GE LAB	
	SEM 6	REMEDIAL	PHY C13 LAB	PHY C13 LAB	PHY C14		PHY DSE3	PHY DSE 4 LAB	PHY DSE4 LAB
TUESDAY	HS I		PHY M2					PHY LAB	PHY LAB
	HS II			PHY M15				PHY LAB	PHY LAB
	SEM 2	REMEDIAL	PHY C3	PHY C4			PHY GE		
	SEM 4	REMEDIAL PHY C9 LAB	PHY GE PHY C9 LAB		PHY C10		PHY C8		
	SEM 6	REMEDIAL	PHY DSE4		PHY C13	PHY C14	PHY DSE 3 LAB	PHY DSE3 LAB	
WEDNESDAY	HS I		PHY M2					PHY LAB	PHY LAB
	HS II				PHY M15			PHY LAB	PHY LAB
	SEM 2	REMEDIAL	PHY C3	PHY GE LAB	PHY GE LAB	PHY C4		SEMINAR/GD	
	SEM 4	PHY C10 LAB	PHY C10 LAB	PHY C8	PHY C9	PHY GE			
	SEM 6	REMEDIAL	PHY DSE3 LAB	PHY DSE3 LAB	PHY DSE4	PHY C13	PHY C14 LAB	MENTORING PHY C14 LAB	
THURSDAY	HS I							PHY M2	
	HS II	PHY M15							
	SEM 2	REMEDIAL	PHY C3	PHY C4 LAB	PHY C4 LAB	PHY GE			
	SEM 4	PHY C8 LAB	PHY C8 LAB		PHY C10		PHY C9	PHY GE LAB	PHY GE LAB
	SEM 6	REMEDIAL		PHY C14	PHY DSE3	PHY C13	PHY DSE4 LAB	PHY DSE4 LAB	
FRIDAY	HS I						PHY M2	PHY LAB	PHY LAB
	HS II					PHY M15		PHY LAB	PHY LAB
	SEM 2	REMEDIAL PHY C3 LAB	PHY C3 LAB		PHY C4		PHY GE	MENTORING	
	SEM 4		PHY C9 LAB	PHY C10		PHY GE	PHY C8	MENTORING	
	SEM 6	REMEDIAL		PHY DSE4	PHY C14	PHY DSE3	PHY C13 LAB	PHY C13 LAB	
SATURDAY	HS I							PHY LAB	PHY LAB
	HS II						PHY M15	PHY LAB	PHY LAB
	SEM 2	PHY GE LAB	PHY GE LAB	PHY C3 LAB	PHY C3 LAB		PHY C4		
	SEM 4	PHY C9 LAB	PHY C8			PHY GE	PHY C9		
	SEM 6	REMEDIAL		PHY DSE4	PHY C14 LAB	PHY C14 LAB	PHY DSE3	PHY C13	

Department of Zoology

Mr. Rajib Rudra Tariang, Head, & Asst. Prof.

Date: 16/05/2021

Course Code: ZC408T
CORE COURSE VIII:
COMPARATIVE ANATOMY OF VERTEBRATE

THEORY

Unit 2: Skeletal System **8**

Overview of axial and appendicular skeleton, Jaw suspensorium, Visceral arches

Unit 3: Digestive System **8**

Alimentary canal and associated glands, dentition

Course Code: ZC409T
CORE COURSE IX:
ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

THEORY

Unit 1: Physiology of Digestion **14**

Structural organization and functions of gastrointestinal tract and associated glands; Mechanical and chemical digestion of food; Absorptions of carbohydrates, lipids, proteins, water, minerals and vitamins; Hormonal control of secretion of enzymes in Gastrointestinal tract.

Unit 3: Renal Physiology **8**

Structure of kidney and its functional unit; Mechanism of urine formation; Regulation of water balance; Regulation of acid-base balance

Course Code: ZC410T
CORE COURSE X:
BIOCHEMISTRY OF METABOLIC PROCESSES

Unit 2: Carbohydrate Metabolism **16**

Sequence of reactions and pathways of glycolysis, Citric acid cycle, Phosphate pentose pathway, Gluconeogenesis, Glycogenolysis and Glycogenesis.

GE IV:
ENVIRONMENT AND PUBLIC HEALTH

THEORY

Unit IV
Waste Management Technologies **18**

Sources of waste, types and characteristics, Sewage disposal and its management, Solid waste disposal, Biomedical waste handling and disposal, Nuclear waste handling and disposal, Waste from thermal power plants, Case histories on Bhopal gas tragedy, Chernobyl disaster, Seveso disaster and Three Mile Island accident and their aftermath.

Mrs. Aparajita Gogoi, Associate Professor:

Course Code: ZC408T
CORE COURSE VIII:
COMPARATIVE ANATOMY OF VERTEBRATE

THEORY

Unit 1: Integumentary System **8**

Structure, functions and derivatives of integument.

Unit 4: Respiratory System **8**

Skin, gills, lungs and air sacs; Accessory respiratory organs

Course Code: ZC409T
CORE COURSE IX:
ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

THEORY

Unit 2: Physiology of Respiration **12**

Histology of trachea and lung; Mechanism of respiration, Pulmonary ventilation; Respiratory volumes and capacities; Transport of oxygen and carbon dioxide in blood; Respiratory pigments, Dissociation curves and the factors influencing it; Carbon monoxide poisoning; Control of respiration

Course Code: ZC410T
CORE COURSE X:
BIOCHEMISTRY OF METABOLIC PROCESSES

THEORY

Unit 1: Overview of Metabolism **4 [10]**

..... Shuttle systems and membrane transporters; ATP as "Energy Currency of cell"; coupled reactions;.....

Unit 5: Oxidative Phosphorylation **10**

Redox systems; Review of mitochondrial respiratory chain, Inhibitors and un-couplers of Electron Transport System

GE IV:
ENVIRONMENT AND PUBLIC HEALTH

THEORY

UNIT II Climate Change **10**

Greenhouse gases and global warming, Acid rain, Ozone layer destruction, Effect of climate change on public health.

Dr. Kishor Haloi, Asst. Professor:

Course Code: ZC408T
CORE COURSE VIII:
COMPARATIVE ANATOMY OF VERTEBRATE

THEORY

Unit 7: Nervous System 8

Comparative account of brain Autonomic nervous system, Spinal cord, Cranial nerves in mammals

Unit 8: Sense Organs 6

Classification of receptors Brief account of visual and auditory receptors in man

Course Code: ZC409T
CORE COURSE IX:
ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

THEORY

Unit 5: Physiology of Heart 12

Structure of mammalian heart; Coronary circulation; Structure and working of conducting myocardial fibers. Origin and conduction of cardiac impulses Cardiac cycle; Cardiac output and its regulation, Frank-Starling Law of the heart, nervous and chemical regulation of heart rate. Electrocardiogram, Blood pressure and its regulation.

Course Code: ZC410T
CORE COURSE X:
BIOCHEMISTRY OF METABOLIC PROCESSES

THEORY

Unit 1: Overview of Metabolism (Part). 3[10]

.....Use of reducing equivalents and cofactors; basics of intermediary metabolism and overview of regulatory strategies.

Unit 4: Protein Metabolism 10

Catabolism of amino acids: Transamination, Deamination, Urea cycle; Fate of C-skeleton of Glucogenic and Ketogenic amino acids.

GE IV:
ENVIRONMENT AND PUBLIC HEALTH

THEORY

UNIT I: Introduction 12

Sources of Environmental hazards, hazard identification and accounting, fate of toxic and persistent substances in the environment, dose Response Evaluation, exposure Assessment.

Dr. Moni Kankana Kalita, Asst. Professor:

Course Code: ZC408T
CORE COURSE VIII:
COMPARATIVE ANATOMY OF VERTEBRATE

THEORY

Unit 5: Circulatory System **8**

General plan of circulation, evolution of heart and aortic arches

Unit 6: Urinogenital System **6**

Succession of kidney, Evolution of urinogenital ducts, Types of mammalian uteri.

Course Code: ZC409T
CORE COURSE IX:
ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

THEORY

Unit 4: Blood **14**

Components of blood and their functions; Structure and functions of haemoglobin Haemostasis: Blood clotting system, Kallikrein-Kininogen system, Complement system & Fibrinolytic system, Haemopoiesis Blood groups: Rh factor, ABO and MN.

Course Code: ZC410T
CORE COURSE X:
BIOCHEMISTRY OF METABOLIC PROCESSES

THEORY

Unit 1: Overview of Metabolism **3[10]**

Catabolism vs Anabolism, Stages of catabolism, Compartmentalization of metabolic pathways.....

Unit 3: Lipid Metabolism **14**

β -oxidation and omega -oxidation of saturated fatty acids with even and odd number of carbon atoms; Biosynthesis of palmitic acid; Ketogenesis.

GE IV:
ENVIRONMENT AND PUBLIC HEALTH

THEORY

Unit III Pollution **10**

Air, water, noise pollution sources and effects, Pollution control.

Unit 5 Diseases **10**

Causes, symptoms and control of tuberculosis, Asthma, Cholera, Minamata disease, typhoid

NEW CLASS ROUTINE, 2021 (w. e. f. 13/09/2021) for Dept. of Zoology: Digboi College, Digboi.

DAY	9:00-9:45	9:45-10:30	10:30-11:15	11:15-12:00	12:00-12:45	12:45-1:30	1:30-2:15	2:15-3:00	3:00-3:45	3:45-4:30
MONDAY	Sem V Core 11 AG	Sem V Core11 MKK	Sem V DSC-(3) KH	Sem V DSC-(4) RRT	Sem V PRACTICAL RRT		Core-6 KH	Core-7 RRT	Generic Elective MKK	Skill Enhancement Course RRT
TUESDAY	Sem V DSC (3) RRT	Sem V Core 12 AG	Sem V Core 12 MKK	Sem V DSC (4) KH		Zoology-GR-A-M2 Zoology-GR-B-M15 MKK	Core-5 RRT	Core-6 AG	Core-7 KH	Generic Elective RRT
					Sem V PRACTICAL KH					
WEDNESDAY	Sem V DSC (3) MKK	Sem V DSC (4) RRT	Sem V Core 11 AG	Sem V Core 11 KH	Sem V PRACTICAL MKK		Skill Enhancement Course NC	Core-5 KH	Core-6 RRT	Core-7 AG
THURSDAY	Zoology-GR-A-M2 Zoology-GR-B-M15 RRT Sem V Core 11 KH	Sem V DSC (3) AG	Sem V DSC (4) MKK	Sem V Core 12 RRT	Sem V PRACTICAL AG		Generic Elective AG	Skill Enhancement Course KH	Core-5 AG	Core-6 RRT
FRIDAY	Sem V Core 11 RRT	Sem V Core 12 MKK	Sem V DSC (3) KH	Sem V DSC (4) AG	Sem V PRACTICAL RRT/KH		Core-7 MKK	Generic Elective KH	Skill Enhancement Course NC	Core-5 MKK
SATURDAY	Sem V DSC (3) MKK	Sem V DSC (4) AG	Sem V Core 12 KH	Zoology-GR-A-M2 Zoology-GR-B-M15 KH Sem V Core 11 RRT	Sem V PRACTICAL AG/MKK		Core-6 MKK	Core-7 AG	Generic Elective RRT	Core-5 KH

RRT Sem	V Core 11 = 2	V Core 12 = 1	V DSC 3 = 1	V DSC 4 = 2	V Practical = 4	III Core 5 = 1	III Core 6 = 2	III Core 7 = 1	III Generic = 2	III SEC = 1
AG Sem	V Core 11 = 2	V Core 12 = 1	V DSC 3 = 1	V DSC 4 = 2	V Practical = 4	III Core 5 = 1	III Core 6 = 1	III Core 7 = 2	III Generic = 1	
KH Sem	V Core 11 = 2	V Core 12 = 1	V DSC 3 = 2	V DSC 4 = 1	V Practical = 4	III Core 5 = 2	III Core 6 = 1	III Core 7 = 1	III Generic = 1	III SEC = 1
MKK Sem	V Core 11 = 1	V Core 12 = 2	V DSC 3 = 2	V DSC 4 = 1	V Practical = 4	III Core 5 = 1	III Core 6 = 1	III Core 7 = 1	III Generic = 1	

DEPARTMENT OF ZOOLOGY
[COURSE DISTRIBUTION FOR I (CBCS), III (CBCS) AND V (CBCS) SEMESTER]
[September to December 2021]

RAJIB RUDRA TARIANG (Head)

Semester I (Honours) CBCS

Course Code: ZC101T

CORE COURSE I: NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

THEORY:

Unit 2: Porifera

7

General characteristics and Classification up to classes Canal system and spicules in sponges.

Unit 5: Platyhelminthes

10

General characteristics and Classification up to classes Life cycle and pathogenicity of *Fasciola hepatica* and *Taenia solium*.

Course Code: ZC101P

NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

PRACTICALS:

3. Study of *Sycon* (T.S. and L.S.), *Hyalonema*, *Euplectella*, *Spongilla*.

5. Study of adult *Fasciola hepatica*, *Taenia solium* and their life cycles (Slides/microphotographs)

.....

Course Code: ZC102T

CORE COURSE II: PRINCIPLES OF ECOLOGY

THEORY:

Unit 4: Ecosystem

14

Types of ecosystems with one example in detail (Forest ecosystem), Food chain: Detritus and grazing food chains, Linear and Y-shaped food chains, Food web, Energy flow through the ecosystem, Ecological pyramids and Ecological efficiencies.

Unit 5: Applied Ecology

4

Concept of wildlife conservation (Usefulness, causes and consequences of degradation); Management strategies

Course Code: ZC102P

PRINCIPLES OF ECOLOGY

PRACTICALS:

2. Determination of population density in a natural/hypothetical community by quadrat method and calculation of Shannon-Weiner diversity index for the same community.

4. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/Reserved forest

Semester I (Generic) CBCS

**GE II:
ANIMAL DIVERSITY**

Theory:

Unit 2. Porifera 3
General characters and canal system in Porifera.

Unit 4. Aceolomates 3
General characters of Helminthes; Life cycle of *Taenia solium*

Unit 7. Arthropoda 4
General characters. Social life in insects

Practical:

Unit 1: Study of following specimens:

Sycon, Taenia, Peripatus, Limulus, Hermit crab, Daphnia, Millipede, Centipede, Beetle

Unit 2: Dissections of Digestive and nervous system of Cockroach

=====

Semester III (Honours) CBCS

Course Code: ZC305T

**CORE COURSE V:
DIVERSITY OF CHORDATA**

Theory:

Unit 4: Agnatha 2
General characteristics and classification of cyclostomes up to class

Unit 5: Pisces 8
General characteristics of Chondrichthyes and Osteichthyes, classification upto order Migration, Osmoregulation and Parental care in fishes.

Unit 7: REPTILIA 7
General characteristics and classification up to order; Affinities of Sphenodon; Poison apparatus and Biting mechanism in snakes.

Course Code: ZC305P
DIVERSITY OF CHORDATA

Practical:

1. Identification :
 - (ii) **Agnatha** :: Petromyzon, Myxine;
 - (iii) **Fishes** :: Scoliodon, Sphyrna, Pristis, Torpedo, Chimaera, Mystus, Heteropneustes, Labeo, Exocoetus, Echeneis, Anguilla, Hippocampus, Tetrodon/ Diodon, Anabas, Flat fish.
 - (v) **Reptilia** Chelone, Trionyx, Hemidactylus, Varanus, Uromastix, Chamaeleon, Ophiosaurus, Draco, Bungarus, Vipera, Naja, Hydrophis, Zamenis, Crocodylus
2. Key for Identification of poisonous and non-poisonous snakes

Course Code: ZC306T
CORE COURSE VI:
ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Theory:

Unit 6: Endocrine System

18

Histology of endocrine glands - pineal, pituitary, thyroid, parathyroid, pancreas, adrenal; hormones secreted by them and their mechanism of action; Classification of hormones; Regulation of their secretion; Mode of hormone action, Signal transduction pathways for steroidal and nonsteroidal hormones; Hypothalamus (neuroendocrine gland) - principal nuclei involved in neuroendocrine control of anterior pituitary and endocrine system; Placental hormones.

Course Code: ZC306P
ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

PRACTICALS:

4. Study of permanent slides of Pituitary, Pancreas, Testis, Ovary, Adrenal, Thyroid and Parathyroid.

Course Code: ZC307T
CORE COURSE VII:
FUNDAMENTALS OF BIOCHEMISTRY

THEORY:

Unit 4: Nucleic Acids

12

Structure: Purines and pyrimidines, Nucleosides, Nucleotides, Nucleic acids Cot Curves: Base pairing, Denaturation and Renaturation of DNA Types of DNA and RNA, Complementarity of DNA, Hypo-Hyperchromaticity of DNA.

Course Code: ZC307P
FUNDAMENTALS OF BIOCHEMISTRY

PRACTICAL:

1. Qualitative tests of functional groups in carbohydrates.

Semester III GENERIC:

GE VII: HUMAN PHYSIOLOGY

THEORY

(CREDITS 4)

Unit 1: Digestion and Absorption of Food

12

Structure and function of digestive glands; Digestion and absorption of carbohydrates, fats and proteins; Nervous and hormonal control of digestion (in brief).

Unit 6: Endocrine and Reproductive Physiology

14

Structure and function of endocrine glands (pituitary, thyroid, parathyroid, pancreas, adrenal).

PRACTICAL:

Study of permanent histological sections of mammalian oesophagus, stomach, duodenum, rectum, lung, kidney, thyroid, pancreas, adrenal, testis, ovary.

CORE COURSE XI: MOLECULAR BIOLOGY

Course Code: ZC511T

SEMESTER V:

THEORY

(CREDITS 4)

Unit 1: Nucleic Acids

4 Lectures

Salient features of DNA and RNA, Watson and Crick model of DNA

Unit 5: Post Transcriptional Modifications and Processing of Eukaryotic RNA

6 Lectures

Structure of globin mRNA; Split genes: concept of introns and exons, splicing mechanism, alternative splicing, exon shuffling, and RNA editing, Processing of tRNA.

Course Code: ZC511P

MOLECULAR BIOLOGY

PRACTICAL

(CREDITS 2)

1. Study of Polytene chromosomes from Chironomous / Drosophila larvae
2. Study and interpretation of electron micrographs/ photograph showing
 - (a) DNA replication
 - (b) Transcription
 - (c) Split genes

Course Code: ZC512T

CORE COURSE XII: PRINCIPLES OF GENETICS

THEORY

(CREDITS 4)

Unit 3: Mutations

10 Lectures

Types of gene mutations (Classification), Types of chromosomal aberrations (Classification, figures and with one suitable example of each), Molecular basis of mutations in relation to UV light and chemical mutagens; Detection of mutations: CLB method, attached X method.

Course Code: ZC512P

PRINCIPLES OF GENETICS

PRACTICALS

(CREDITS 2)

1. Pedigree analysis of some human inherited traits

Course Code: ZD503T

DSE Course III:

ENDOCRINOLOGY

THEORY

(Credits 4)

Unit 2: Epiphysis, Hypothalamo-hypophysial Axis

15 Lectures

Structure of hypothalamus, Hypothalamic nuclei and their functions, Regulation of neuroendocrine glands, Feedback mechanisms

Structure of pituitary gland, Hormones and their functions, Hypothalamo- hypophysial portal system, Disorders of pituitary gland.

Course Code: ZD503P

ENDOCRINOLOGY

PRACTICAL

(Credits 2)

1. Study of the permanent slides of all the endocrine glands.

Course Code: ZD504T

DSE Course IV: BIOLOGY OF INSECTA

THEORY

(Credits 4)

Unit II: Insect Taxonomy

4 Lectures

Basis of insect classification; Classification of insects up to orders

Unit III: General Morphology of Insects

8 Lectures

External Features; Head – Eyes, Types of antennae, Mouth parts w.r.t. feeding habits

Thorax: Wings and wing articulation, Types of Legs adapted to diverse habitat Abdominal appendages and genitalia.

Course Code: ZD504P

BIOLOGY OF INSECTA

PRACTICAL

(CREDITS 2)

1. Study of one specimen from each insect order
2. Study of head and sclerites of any one insect
3. Study of insect wings and their venation.
4. Prepare permanent slide of insect spiracles
5. Methodology of collection, preservation and identification of insects.
6. Field study of insects and submission of a project report on the insect diversity

DEPARTMENT OF ZOOLOGY

(COURSE DISTRIBUTION FOR II, IV AND VI SEMESTER SEPTEMBER-DECEMBER 2021)

APARAJITA GOGOI (Associate Professor)

Semester I (Honours) CBCS

Course Code: ZC101T

CORE COURSE I: NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

THEORY:

Unit 6: Nematelminthes

8

General characteristics and Classification up to classes Life cycle, and pathogenicity of *Ascaris lumbricoides* and *Wuchereria bancrofti*. Parasitic adaptations in helminthes.

Course Code: ZC101P

NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

PRACTICALS:

6. Study of adult *Ascaris lumbricoides* and its life stages (Slides/micro-photographs)
7. To submit a Project Report on any related topic based on theory syllabus.

Course Code: ZC102T

CORE COURSE II: PRINCIPLES OF ECOLOGY

THEORY:

Unit 3: Community

12

Community characteristics: species richness, dominance, diversity, abundance, vertical stratification, Ecotone and edge effect; Ecological succession with hydrosere Theories pertaining to climax community.

Course Code: ZC102P

PRINCIPLES OF ECOLOGY

PRACTICALS:

3. Study of an aquatic ecosystem: Phytoplankton and zooplankton, Measurement of area, temperature, turbidity/penetration of light.
 4. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/Reserved forest.
-

Semester I (Generic) CBCS

GE II: ANIMAL DIVERSITY

Theory:

Unit 8. Mollusca

3

General characters of mollusca; Pearl Formation.

Unit 12. Amphibia

4

General characters, Adaptations for terrestrial life, Parental care in Amphibia.

Unit 14. Aves

5

The origin of birds; Flight adaptations

Unit 15. Mammalia

6

Early evolution of mammals; Primates; Dentition in mammals.

Practical:

1. Study of the following specimens.

Chiton, Dentalium, Octopus, Ichthyophis/Uraeotyphlus, Salamander, Rhacophorus, any three common birds-(Crow, duck, Owl), Squirrel and Bat.

Semester III Zoology Core CBCS

Course Code: ZC305T CORE COURSE V: DIVERSITY OF CHORDATA

Theory:

Unit 6: Amphibia

6

Origin of Tetrapoda (Evolution of terrestrial ectotherms); General characteristics and classification up to order; Parental care in Amphibians.

Unit 9: Mammals

8

General characters and classification up to order; Affinities of Prototheria; Adaptive radiation with reference to locomotory appendages.

Practical:

(iv) Amphibia Ichthyophis/Uraeotyphlus, Necturus, Bufo, Hyla, Alytes, Salamandra.

(vi) Aves Study of six common birds from different orders. Types of beaks and claws

Dissection: Pecten from Fowl head

Course Code: ZC306T

CORE COURSE VI:

ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Theory:

Unit 2: Bone and Cartilage

4

Structure and types of bones and cartilages, Ossification, bone growth and resorption.

Unit 3: Nervous System

10

Structure of neuron, resting membrane potential, Origin of action potential and its propagation across the myelinated and unmyelinated nerve fibers; Types of synapse, Synaptic transmission and, Neuromuscular junction; Reflex action and its types - reflex arc; Physiology of hearing and vision.

Course Code: ZC306P

ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Practical:

4. Study of permanent slides of Mammalian skin, Cartilage, Bone, Spinal cord, Nerve cell.

Course Code: ZC307T

CORE COURSE VII:

FUNDAMENTALS OF BIOCHEMISTRY

THEORY:

Unit 3: Proteins

14

Amino acids: Structure, Classification and General properties of α -amino acids; Physiological importance of essential and non-essential α -amino acids

Proteins: Bonds stabilizing protein structure; Levels of organization in proteins; Denaturation; Introduction to simple and conjugate proteins

Immunoglobulins: Basic Structure, Classes and Function, Antigenic Determinants.

Course Code: ZC307P

FUNDAMENTALS OF BIOCHEMISTRY

PRACTICAL:

1. Qualitative tests of functional groups in proteins.
2. Paper chromatography of amino acids

Semester III GENERIC:

GE VII: HUMAN PHYSIOLOGY

THEORY

(CREDITS 4)

Unit 2: Functioning of Excitable Tissue (Nerve and Muscle)

10

Structure of neuron, Propagation of nerve impulse (myelinated and non-myelinated nerve fibre); Structure of skeletal muscle, Mechanism of muscle contraction (Sliding filament theory), Neuromuscular junction.

PRACTICAL

(CREDITS 2)

1. Preparation of temporary mounts: Neurons and Blood film

**CORE COURSE XI:
MOLECULAR BIOLOGY**
Course Code: ZC511T

SEMESTER V:

THEORY

(CREDITS 4)

Unit 2: DNA Replication

12 Lectures

DNA Replication in prokaryotes and eukaryotes, mechanism of DNA replication, Semi-conservative, bidirectional and semi-discontinuous replication, RNA priming, Replication of circular and linear *ds*-DNA.

Unit 3: Transcription

10 Lectures

RNA polymerase and transcription Unit, mechanism of transcription in prokaryotes and eukaryotes, synthesis of rRNA and mRNA, transcription factors.

Course Code: ZC511P

MOLECULAR BIOLOGY

PRACTICAL

(CREDITS 2)

1. Study and interpretation of electron micrographs/ photograph showing
 - a. DNA replication
 - b. Transcription
 - c. Split genes

Course Code: ZC512T

CORE COURSE XII: PRINCIPLES OF GENETICS

THEORY

(CREDITS 4)

Unit 1: Mendelian Genetics and its Extension

8 Lectures

Principles of inheritance, Incomplete dominance and co-dominance, Multiple alleles, Lethal alleles, Epistasis, Pleiotropy, Sex-linked, sex-influenced and sex-limited characters inheritance.

Unit 5: Extra-chromosomal Inheritance

6 Lectures

Criteria for extra-chromosomal inheritance, Antibiotic resistance in *Chlamydomonas*, Mitochondrial mutations in *Saccharomyces*, Infective heredity in *Paramecium* and Maternal effects

Course Code: ZC512P

PRINCIPLES OF GENETICS

PRACTICALS

(CREDITS 2)

1. To study the Mendelian laws and gene interactions (based on theory)
2. Chi-square analyses using seeds/beads/*Drosophila*.

Course Code: ZD503T

DSE Course III:

ENDOCRINOLOGY

THEORY

(Credits 4)

Unit 3: Peripheral Endocrine Glands

Structure, Hormones, Functions and Regulation of Thyroid gland, Parathyroid, Adrenal, Pancreas, Ovary and Testis.

Course Code: ZD503P

ENDOCRINOLOGY

PRACTICAL

(Credits 2)

1. Dissect and display of Endocrine glands in laboratory bred (virtual) rat*
2. Study of the permanent slides of all the endocrine glands.

Course Code: ZD504T

DSE Course IV:

BIOLOGY OF INSECTA

THEORY

(Credits 4)

Unit IV: Insect Society

6 Lectures

Group of social insects and their social life. Social organization and social behaviour (w.r.t. any one example).

Unit V: Insect Plant Interaction

4 Lectures

Theory of co-evolution, role of allelochemicals in host plant mediation Host-plant selection by phytophagous insects, Insects as plant pests.

Course Code: ZD504P

BIOLOGY OF INSECTA

PRACTICAL

(CREDITS 2)

1. Study of different kinds of antennae, legs and mouth parts of insects

DEPARTMENT OF ZOOLOGY

(COURSE DISTRIBUTION FOR I, III AND V SEMESTER SEPTEMBER-AUGUST, 2021)

Dr. KISHOR HALOI (Asst. Professor)

Semester I (Honours) CBCS

Course Code: ZC101T

CORE COURSE I: NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

THEORY:

Unit 1: Protista, Parazoa and Metazoa

19

General characteristics and Classification up to Classes Structural organization & nutrition of Euglena, Amoeba and Paramecium Life cycle and pathogenicity of Plasmodium vivax Locomotion and Reproduction in Animal protista (Protozoa) Evolution of symmetry and segmentation of Metazoa.

Course Code: ZC101P

NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

PRACTICALS:

1. Study of whole mount of Euglena, Amoeba and Paramecium, Binary fission and Conjugation in Paramecium
2. Examination of pond water collected from different places for diversity in Animal protista (Protozoa)

Course Code: ZC102T

CORE COURSE II: PRINCIPLES OF ECOLOGY

THEORY:

Unit 1: Introduction to Ecology

6

History of ecology, Autecology and synecology, Levels of organization, Laws of limiting factors, Study of abiotic factors

Unit 2: Population

12

Unitary and Modular populations Unique and group attributes of population: Density, natality, mortality, life tables, fecundity tables, survivorship curves, age ratio, sex ratio, dispersal and dispersion Exponential and logistic growth, equation and patterns, r and K strategies.

Course Code: ZC102P

PRINCIPLES OF ECOLOGY

PRACTICALS:

1. Study of life tables and plotting of survivorship curves of different types from the hypothetical/real data provided.
2. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/Reserved forest

Semester I (Generic) CBCS

GE II: ANIMAL DIVERSITY

Theory:

Unit 1. Protista:

General characters of Protozoa; Life cycle of Plasmodium.

4

Unit 5. Pseudocoelomates

General characters of Nemethehelminthes; Parasitic adaptations.

3

Unit 9. Coelomate Deuterostomes.

General characters of Echinodermata, Water Vascular system in Starfish.

3

Unit 10. Protochordata

Salient features

2

Practical:

1. Study of the following specimens:

Euglena, Noctiluca, Paramecium, Ascaris, Asterias, and Antedon, Balanoglossus, Amphioxus,

2. Temporary mounts of Septal & pharyngeal nephridia of earthworm. Unstained mounts of Placoid, cycloid and ctenoid scales.

3. Dissection of Urinogenital system of Rat

Semester III Zoology Core CBCS

Course Code: ZC305T CORE COURSE V: DIVERSITY OF CHORDATA

Theory:

Unit 1: Introduction to Chordates

General characteristics and outline classification

2

Unit 2: Protochordata

General characteristics of Hemichordata, Urochordata and Cephalochordata; Study of larval forms in protochordates; Retrogressive metamorphosis in Urochordata

8

Unit 3: Origin of Chordata

Dipleurula concept and the Echinoderm theory of origin of chordates Advanced features of vertebrates over Protochordata.

3

Practical:

- (i) Protochordata *Balanoglossus*, *Herdmania*, *Branchiostoma*, Colonial Urochordata Sections of *Balanoglossus* through proboscis and branchiogenital regions, Sections of *Amphioxus* through pharyngeal, intestinal and caudal regions. Permanent slide of *Herdmania* spicules.
- (ii) Dissection of weberian ossicles of *Mystus*.

Course Code: ZC306T

CORE COURSE VI:

ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Theory:

Unit 1: Tissues

6

Structure, location, classification and functions of epithelial tissue, connective tissue, muscular tissue and nervous tissue.

Unit 5: Reproductive System

10

Histology of testis and ovary; Physiology of male and female reproduction; Puberty, Methods of contraception in male and female.

Course Code: ZC306P

ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Practical:

1. Preparation of temporary mounts: Squamous epithelium, Striated muscle fibres and nerve cells.
5. Microtomy: Preparation of permanent slide of any five mammalian (Goat/white rat) tissues.

Course Code: ZC307T

CORE COURSE VII:

FUNDAMENTALS OF BIOCHEMISTRY

THEORY:

Unit 5: Enzymes 18

Nomenclature and classification; Cofactors; Specificity of enzyme action; Isozymes; Mechanism of enzyme action; Enzyme kinetics; Factors affecting rate of enzyme-catalyzed reactions; Derivation of Michaelis-Menten equation, Concept of K_m and V_{max} , Lineweaver-Burk plot; Multisubstrate reactions; Enzyme inhibition; Allosteric enzymes and their kinetics; Regulation of enzyme action.

Course Code: ZC307P

FUNDAMENTALS OF BIOCHEMISTRY

PRACTICAL:

4. Effect of pH, temperature and inhibitors on the action of salivary amylase.
5. Demonstration of proteins separation by SDS-PAGE (theoretically).

THEORY**(CREDITS 4)****Unit 3: Respiratory Physiology**

6

Ventilation, External and internal Respiration, Transport of oxygen and carbon dioxide in blood, Factors affecting transport of gases.

Unit 6: Endocrine and Reproductive Physiology

14

Structure and function of endocrine glands (ovaries, and testes), Brief account of spermatogenesis and oogenesis, Menstrual cycle.

PRACTICAL:

2. Preparation of haemin and haemochromogen crystals.

**CORE COURSE XI:
MOLECULAR BIOLOGY****Course Code: ZC511T****SEMESTER V:****THEORY****(CREDITS 4)****Unit 4: Translation****12 Lectures**

Genetic code, Degeneracy of the genetic code and Wobble Hypothesis; Process of protein synthesis in prokaryotes: Ribosome structure and assembly in prokaryotes, fidelity of protein synthesis, aminoacyl tRNA synthetases and charging of tRNA; Proteins involved in initiation, elongation and termination of polypeptide chain; Inhibitors of protein synthesis; Difference between prokaryotic and eukaryotic translation.

Unit 7: DNA Repair Mechanisms**3 Lectures**

Pyrimidine dimerization and mismatch repair

Course Code: ZC511P**MOLECULAR BIOLOGY****PRACTICAL****(CREDITS 2)**

1. Preparation of liquid culture medium (LB) and inoculation
2. Preparation of solid culture medium (LB) and growth of *E. coli* by spreading and streaking

Course Code: ZC512T

CORE COURSE XII: PRINCIPLES OF GENETICS

THEORY

(CREDITS 4)

Unit 6: Polygenic Inheritance

3 Lectures

Polygenic inheritance with suitable examples; simple numericals based on it.

Unit 7: Recombination in Bacteria and Viruses

9 Lectures

Conjugation, Transformation, Transduction, Complementation test in Bacteriophage

Unit 8: Transposable Genetic Elements

8 Lectures

Transposons in bacteria, Ac-Ds elements in maize and P elements in *Drosophila*, Transposons in humans

Course Code: ZC512P

PRINCIPLES OF GENETICS

PRACTICALS

(CREDITS 2)

1. Linkage maps based on data from conjugation, transformation and transduction.

Course Code: ZD503T

**DSE Course III:
ENDOCRINOLOGY**

THEORY

(Credits 4)

Unit 1: Introduction to Endocrinology

12 Lectures

History of endocrinology, Classification, Characteristic and Transport of Hormones, Neurosecretions and Neurohormones.

Unit 2: Epiphysis, Hypothalamo-hypophysial Axis

Structure of pineal gland, Secretions and their functions in biological rhythms and reproduction.

Course Code: ZD503P

ENDOCRINOLOGY

PRACTICAL

(Credits 2)

1. Study of estrus cycle in bred rat*
2. Study of the permanent slides of all the endocrine glands

Course Code: ZD504T

DSE Course IV: BIOLOGY OF INSECTA

THEORY

(Credits 4)

Unit IV: Physiology of Insects

28 Lectures

Structure and physiology of Insect body systems - Integumentary, digestive, excretory, circulatory, respiratory, endocrine and reproductive.

Sensory receptors and nervous system Growth and metamorphosis.

Course Code: ZD504P

BIOLOGY OF INSECTA

PRACTICAL

(CREDITS 2)

1. Study of any three insect pests and their damages
2. Study of any three beneficial insects and their products

DEPARTMENT OF ZOOLOGY
(COURSE DISTRIBUTION FOR I, III AND V SEMESTER)
[SEPTEMBER – AUGUST, 2021]

Dr. MONI KANKANA KALITA (Asst. Professor)

Semester I (Honours) CBCS

Course Code: ZC101T

CORE COURSE I: NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

THEORY:

Unit 3: Cnidaria **12**

General characteristics and Classification up to classes. Metagenesis in *Obelia* Polymorphism in Cnidaria Corals and coral reefs.

Unit 4: Ctenophora **4**

General characteristics and Evolutionary significance.

Course Code: ZC101P

NON-CHORDATES I: PROTISTS TO PSEUDOCOELOMATES

PRACTICALS:

4. Identification of museum specimen: *Obelia*, *Physalia*, *Millepora*, *Aurelia*, *Tubipora*, *Corallium*, *Alcyonium*, *Gorgonia*, *Metridium*, *Pennatula*, *Fungia*, *Meandrina*, *Madrepora* and One specimen/slide of any ctenophore.

Course Code: ZC102T

CORE COURSE II: PRINCIPLES OF ECOLOGY

THEORY:

Unit 2: Population **12**

Population regulation - density-dependent and independent factors Population interactions, Gause's Principle with laboratory and field examples, Lotka-Volterra equation for competition and Predation, functional and numerical responses.

Unit 4: Ecosystem: **4**

Nutrient and biogeochemical cycle with Nitrogen cycle as an example Human modified ecosystem

Course Code: ZC102P

PRINCIPLES OF ECOLOGY

PRACTICALS:

3. Determination of pH, and Dissolved Oxygen content (Winkler's method) and free CO₂
 4. Report on a visit to National Park/Biodiversity Park/Wild life sanctuary/Reserved forest
-

Semester I (Generic) CBCS

GE II: ANIMAL DIVERSITY

Theory:

Unit 3. Radiata 3

General characters of Cnidarians and polymorphism.

Unit 6. Coelomate Protostomes 3

General characters of Annelida ; Metamerism.

Unit 11. Pisces 4

Osmoregulation, Migration of Fishes

Unit 13. Reptiles 5

Amniotes; Origin of reptiles. Terrestrial adaptations in reptiles.

PRACTICAL:

1. Study of the following specimens:
Physalia, Tubipora, Metridium, Nereis, Aphrodite, Leech, Petromyzon, Pristis, Hippocampus, Labeo, Draco, Uromastix, Naja, Viper, model of Archaeopteryx.
2. Study of following Permanent Slides: Cross section of Sycon, Sea anemone and Ascaris(male and female). T. S. of Earthworm passing through pharynx, gizzard, and typhlosolar intestine. Bipinnaria and Pluteus larva.

Semester III Zoology Core CBCS

Course Code: ZC305T CORE COURSE V: DIVERSITY OF CHORDATA

Theory:

Unit 8: Aves 8

General characteristics and classification up to order Archaeopteryx-- a connecting link; Principles and aerodynamics of flight, Flight adaptations and Migration in birds.

Unit 10: Zoogeography 8

Zoogeographical realms, Theories pertaining to distribution of animals, Plate tectonic and Continental drift theory, distribution of vertebrates in different realms.

Practical:

Mammalia Sorex, Bat (Insectivorous and Frugivorous), Funambulus, Loris, Herpestes, Erinaceus.

Dissection of Fowl head (Dissections and mounts subject to permission) Power point presentation on study of any two animals from two different classes by students (may be included if dissections not given permission).

Course Code: ZC306T

CORE COURSE VI:

ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Theory:

Unit 4: Muscle

12

Histology of different types of muscle; Ultra structure of skeletal muscle; Molecular and chemical basis of muscle contraction; Characteristics of muscle twitch; Motor unit, summation and tetanus.

Course Code: ZC306P

ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING SYSTEMS

Practical:

1. Recording of simple muscle twitch with electrical stimulation (or Virtual)
2. Demonstration of the unconditioned reflex action (Deep tendon reflex such as knee jerk reflex)

Course Code: ZC307T

CORE COURSE VII:

FUNDAMENTALS OF BIOCHEMISTRY

THEORY:

Unit 1: Carbohydrates

8

Structure and Biological importance: Monosaccharides, Disaccharides, Polysaccharides and Glycoconjugates

Unit 2: Lipids

8

Structure and Significance: Physiologically important saturated and unsaturated fatty acids, Triacylglycerols, Phospholipids, Glycolipids, Steroids.

Course Code: ZC307P

FUNDAMENTALS OF BIOCHEMISTRY

PRACTICAL:

1. Qualitative tests of functional groups in lipids.
2. Action of salivary amylase under optimum conditions.

GE VII: HUMAN PHYSIOLOGY

SEM III GENERIC

THEORY

(CREDITS 4)

Unit 4: Renal Physiology

8

Functional anatomy of kidney, Mechanism and regulation of urine formation,

Unit 5: Cardiovascular Physiology

10

Structure of heart, Coordination of heartbeat, Cardiac cycle, ECG

PRACTICAL:

3. Estimation of haemoglobin using Sahli's haemoglobinometer

SEMESTER V

Course Code: ZC511T

CORE COURSE XI: MOLECULAR BIOLOGY

THEORY

(CREDITS 4)

Unit 6: Gene Regulation

10 Lectures

Transcription regulation in prokaryotes: Principles of transcriptional regulation with examples from *lac* operon and *trp* operon; Transcription regulation in eukaryotes: Activators, repressors, enhancers, silencer elements; Gene silencing, Genetic imprinting

Unit 8: Regulatory RNAs

3 Lectures

Concept of Ribo-switches, RNA interference, miRNA, siRNA

Course Code: ZC511P

MOLECULAR BIOLOGY

PRACTICAL

(CREDITS 2)

1. Quantitative estimation of salmon sperm/calf thymus DNA using colorimeter (Diphenylamine reagent)
2. Quantitative estimation of RNA using Orcinol reaction.

Course Code: ZC512T

CORE COURSE XII: PRINCIPLES OF GENETICS

THEORY

(CREDITS 4)

Unit 2: Linkage, Crossing Over and Chromosomal Mapping

12 Lectures

Linkage and crossing over, Cytological basis of crossing over, Molecular mechanisms of crossing over including models of recombination, Recombination frequency as a measure of linkage intensity, Two factor and three factor crosses, Interference and coincidence, Somatic cell hybridization.

Unit 4: Sex Determination

4 Lectures

Chromosomal mechanisms of sex determination in *Drosophila* and Man

Course Code: ZC512P

PRINCIPLES OF GENETICS

PRACTICALS

(CREDITS 2)

1. Linkage maps based on data from *Drosophila* crosses.
2. Study of human karyotype (normal and abnormal) based on data.

Course Code: ZD503T

**DSE Course III:
ENDOCRINOLOGY**

THEORY

(Credits 4)

Unit 4: Regulation of Hormone Action

15 Lectures

Hormone action at Cellular level and molecular level:

Hormone receptor: signal transducer, second messenger

Hormones in homeostasis, Disorders of endocrine glands

Course Code: ZD503P

ENDOCRINOLOGY

PRACTICAL

(Credits 2)

1. Demonstration of Castration/ ovariectomy in laboratory bred rat*

Course Code: ZD504T

DSE Course IV: BIOLOGY OF INSECTA

THEORY

(Credits 4)

Unit I: Introduction

4 Lectures

General Features of Insects, Distribution and Success of Insects on the Earth

Unit VI: Insects as Vectors

6 Lectures

Insects as mechanical and Biological vectors, Brief discussion on houseflies and mosquitoes as important insect vectors.

Course Code: ZD504P

BIOLOGY OF INSECTA

PRACTICAL

(CREDITS 2)

1. Morphological studies of various castes of *Apis*, and *Odontotermes*

DEPARTMENT OF ZOOLOGY
COURSE DISTRIBUTION FOR II (CBCS), IV (CBCS) AND VI (CBCS) SEMESTER of TDC

Date of Distribution: 03/03/2022

Mr. Rajib Rudra Tariang, Head

Course Code: ZC203T
CORE COURSE III
NON-CHORDATES II: COELOMATES

C 3 – Non-chordates II: Coelomates

Unit 3: Arthropoda

General characteristics and classification up to classes. Vision & Respiration in Arthropoda, Metamorphosis in Insects, Social life in bees and termites.

Practical- Non-Chordates II Coelomates

1. Study of specimens as per syllabus
2. Mount of mouth parts and dissection of digestive system and nervous system of *Periplaneta*

Course Code: ZC204T
CORE COURSE IV
CELL BIOLOGY

C 4 – Cell Biology

Unit 2: Plasma Membrane- Various models in plasma membrane structure, Transport across membranes: Active and Passive transport. Facilitated transport, Cell junctions: Tight junctions, Desmosomes, Gap Junctions.

Unit 3: Structure & functions: Endoplasmic Reticulum.

Practical: Cell Biology

1. Preparation of temporary stained of onion root tip to study various stages of mitosis.
2. Study of various stages of meiosis.

Sem II (Generic) CBCS
CCII-GE-VIII
INSECT VECTORS AND DISEASES

Theory:

Unit 1: Introduction to Insects: General Features of Insects, Morphological features, Head – Eyes, Types of antennae, Mouth parts w.r.t. feeding habits.

Unit 3: Insects as Vectors: Classification of insects up to orders, detailed features of orders with insects as vectors – Diptera, Siphonaptera, Siphunculata, Hemiptera.

Unit 4: Hemiptera as Disease Vectors: Bugs as insect vectors; Blood-sucking bugs; Chagas disease, Bed bugs as mechanical vectors, Control and prevention measures.

Practical:

1. Study of different kinds of mouth parts of insects.
2. Submission of a project report on any one of the insect vectors and disease transmitted

Course Code: ZC203T
CORE COURSE III
NON-CHORDATES II: COELOMATES

Mrs. Aparajita Gogoi

C3 Non-chordates II: Coelomates

1. **Mollusca-** Torsion and detorsion in Gastropoda.
2. **Echinodermata:** General Characteristics and classification upto classes, water vascular system in Asteroidea, Larval forms in Echinodermata, Affinities with Chordates.

Practical- Non-Chordates II Coelomates

Unit 1: Study of specimens as per syllabus

Unit 2: Study of digestive system, septal nephridia and pharyngeal nephridia of earthworm.

Course Code: ZC204T
CORE COURSE IV
CELL BIOLOGY

C4 : Cell Biology

Unit 6: Nucleus-Structure of nucleus: Nuclear envelope, nuclear pore complex, Nucleous Chromation: Euchromatin and Heterochromatin and Packaging (Nucleosome).

Unit 8: GPCR and Role of second messenger (cAMP).

Practical- Cell Biology:

1. Study of various stages of meiosis.
2. Preparation of permanent slide to show the presence of Barr body in human female blood Cells / cheek cells.

Semester II (Generic) CBCS
CCII-GE-VIII
INSECT VECTORS AND DISEASES

Theory:

Unit 2: Concept of Vectors: Brief introduction of Carrier and Vectors (mechanical and biological vector), Reservoirs, Host-vector relationship, Vectorial capacity, Adaptations as vectors, Host Specificity.

Unit 3: Siphonaptera as Disease Vectors: Fleas as important insect vectors; Host-specificity, Study of Flea-borne diseases – Plague, Typhus fever; Control of fleas.

Practical:

1. Study of following insect vectors through permanent slides/ photographs: *Aedes*, *Culex*, *Anopheles*, *Pediculus humanus capitis*, *Pediculus humanus corporis*, *Phthirus pubis*, *Xenopsylla cheopis*.
2. Submission of a project report on any one of the insect vectors and disease transmitted

Course Code: ZC203T
CORE COURSE III
NON-CHORDATES II: COELOMATES

Dr. Kishor Haloi

C3 Non-chordates II: Coelomates

Unit 1 Introduction to Coelomates- Evolution of coelom and metamerism.

Unit 2 General characteristics and classification up to classes, excretion in Annelida.

Unit 4 Onychophora- General Characteristics and Evolutionary significance.

C3-Practical- Non-Chordates II Coelomates

1. Study of specimens as per syllabus
2. Study of T.S. through pharynx, gizzard and typhlosolar intestine of earthworm.

Course Code: ZC204T
CORE COURSE IV
CELL BIOLOGY

C4 : Cell Biology

Unit 4 Mitochondria and Peroxisomes: Mitochondria structure, semi-autonomous nature, endosymbiotic hypothesis, mitochondrial respiratory chain, chemi-osmotic hypothesis, Peroxisomes.

Unit 5: Cytoskeleton-Structure and Functions: Microtubules, Microfilaments and Intermediate filaments.

C4 Practical: Cell Biology

Unit-4 Preparation of permanent slide to demonstrate:

- a. DNA by Feulgen reaction
- b. DNA and RNA by MGP

Semester II (Generic) CBCS
CCII-GE-VIII
INSECT VECTORS AND DISEASES

Theory:

Unit 4: Dipteran as Disease Vectors: Dipterans as important insect vectors – Mosquitoes, Sand fly, Houseflies; Study of mosquito-borne diseases – Malaria, Dengue, Chikungunya, Viral encephalitis, Control of mosquitoes. Study of sand fly-borne diseases – Visceral Leishmaniasis, Cutaneous Leishmaniasis, Phlebotomus fever; Control of Sand fly.

Practical:

Unit 2: Study of following insect vectors through permanent slides/ photographs: *Cimex lectularius*, *Phlebotomus argentipes*, *Musca domestica*, through permanent slides/ photographs.

Unit 4: Submission of a project report on any one of the insect vectors and disease transmitted.

Course Code: ZC203T
CORE COURSE III
NON-CHORDATES II: COELOMATES

Dr. Moni Kankana Kalita

C3 Non-chordates II: Coelomates

Unit 5: Mollusca: General Characteristics and classification upto classes. Respiration in Mollusca, Pearl formation in bivalves, evolutionary significance of trochophore larva.

CCIII-Practical- Non-Chordates II Coelomates

1. Study of specimens as per syllabus
2. To submit a Project Report on any related topic to larval forms (Crustacean, mollusca and echinodermata)

Course Code: ZC204T
CORE COURSE IV
CELL BIOLOGY

C4 : Cell Biology

Unit 1: Prokaryotic and Eukaryotic cells, Virus, Viroids, Mycoplasma, Prions.

Unit 2: Mitosis, Cell Cycle and its regulation.

Unit 3: Structure & functions: Golgi Bodies and Lysosomes.

Practical: Cell Biology

1. Preparation of permanent slide to demonstrate:
 - a. Mucopolysaccharides by PAS reaction
 - b. Proteins by Mercurobromophenol blue/ Fast Green.

Semester II (Generic) CBCS
CCII-GE-VIII
INSECT VECTORS AND DISEASES

Semester II (Generic) CBCS
CCII-GE- VIII INSECT VECTORS AND DISEASES

Theory:

Unit IV: Dipteran as Disease Vectors: Study of house fly as important mechanical vector, Myiasis, Control of house fly.

Unit V: Siphunculata as Disease Vectors: Human louse (Head, Body and Pubic louse) as important insect vectors; Study of louse-borne diseases –Typhus fever, Relapsing fever, Trench fever, Control of human louse.

Practical:

1. Study of different diseases transmitted by the insect vectors, as mentioned in the syllabus. (*Aedes*, *Culex*, *Anopheles*, *Pediculus humanus capitis*, *Pediculus humanus corporis*, *Phthirus pubis*, *Xenopsylla cheopis*, *Cimex lectularius*, *Phlebotomus argentipes*, *Musca domestica*).
2. Submission of a project report on any one of the insect vectors and disease transmitted.

Course Code: ZC408T
CORE COURSE VIII:
COMPARATIVE ANATOMY OF VERTEBRATE

Mr. Rajib Rudra Tariang, Head, & Asst. Prof.

C5 THEORY

Unit 2: Skeletal System **8**

Overview of axial and appendicular skeleton, Jaw suspensorium, Visceral arches

Unit 3: Digestive System **8**

Alimentary canal and associated glands, dentition

Practical:

1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs

Course Code: ZC409T
CORE COURSE IX:
ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

C6 THEORY

Unit 1: Physiology of Digestion **14**

Structural organization and functions of gastrointestinal tract and associated glands; Mechanical and chemical digestion of food; Absorptions of carbohydrates, lipids, proteins, water, minerals and vitamins; Hormonal control of secretion of enzymes in Gastrointestinal tract.

Unit 3: Renal Physiology **8**

Structure of kidney and its functional unit; Mechanism of urine formation; Regulation of water balance; Regulation of acid-base balance.

Practical:

1. Preparation of haemin and haemochromogen crystals.
2. Determination of ABO Blood group and Rh factor.

Course Code: ZC410T
CORE COURSE X:
BIOCHEMISTRY OF METABOLIC PROCESSES

C7 Unit 2: Carbohydrate Metabolism **16**

Sequence of reactions and pathways of glycolysis, Citric acid cycle, Phosphate pentose pathway, Gluconeogenesis, Glycogenolysis and Glycogenesis.

Practical:

1. Estimation of total protein in given solutions by Lowry's method.

GE IV:
ENVIRONMENT AND PUBLIC HEALTH

THEORY

Unit IV

Waste Management Technologies **18**

Sources of waste, types and characteristics, Sewage disposal and its management, Solid waste disposal, Biomedical waste handling and disposal, Nuclear waste handling and disposal, Waste from thermal power plants, Case histories on Bhopal gas tragedy, Chernobyl disaster, Seveso disaster and Three Mile Island accident and their aftermath.

Practical:

1. To determine pH, Cl, in soil from different locations

Mrs. Aparajita Gogoi, Associate Professor:

Course Code: ZC408T

CORE COURSE VIII:

COMPARATIVE ANATOMY OF VERTEBRATE

C5 THEORY

Unit 1: Integumentary System

8

Structure, functions and derivatives of integument.

Unit 4: Respiratory System

8

Skin, gills, lungs and air sacs; Accessory respiratory organs

Practical:

1. Dissection of fish (carp) to study efferent and afferent branchial system(subject to permission)

Course Code: ZC409T

CORE COURSE IX:

ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

C6 THEORY

Unit 2: Physiology of Respiration

12

Histology of trachea and lung; Mechanism of respiration, Pulmonary ventilation; Respiratory volumes and capacities; Transport of oxygen and carbon dioxide in blood; Respiratory pigments, Dissociation curves and the factors influencing it; Carbon monoxide poisoning; Control of respiration.

Practical:

1. Examination of sections of mammalian oesophagus, stomach, duodenum, ileum, rectum liver, trachea, lung, kidney.

Course Code: ZC410T

CORE COURSE X:

BIOCHEMISTRY OF METABOLIC PROCESSES

C7 THEORY

Unit 1: Overview of Metabolism

4 [10]

Shuttle systems and membrane transporters; ATP as "Energy Currency of cell"; coupled reactions;

Unit 5: Oxidative Phosphorylation

10

Redox systems; Review of mitochondrial respiratory chain, Inhibitors and un-couplers of Electron Transport System

Practical:

1. To study the enzymatic activity of Trypsin and Lipase.

GE IV:

ENVIRONMENT AND PUBLIC HEALTH

THEORY

UNIT II Climate Change

10

Greenhouse gases and global warming, Acid rain, Ozone layer destruction, Effect of climate change on public health.

Practical:

1. To determine SO₄, NO₃ in soil from different locations.

Dr. Kishor Haloi, Asst. Professor:

**Course Code: ZC408T
CORE COURSE VIII:
COMPARATIVE ANATOMY OF VERTEBRATE**

C5 THEORY

Unit 7: Nervous System **8**

Comparative account of brain Autonomic nervous system, Spinal cord, Cranial nerves in mammals

Unit 8: Sense Organs **6**

Classification of receptors Brief account of visual and auditory receptors in man

Practical:

1. Disarticulated skeleton of Frog, Varanus, Fowl, Rabbit
2. Mammalian skulls: One herbivorous and one carnivorous animal

**Course Code: ZC409T
CORE COURSE IX:
ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS**

C6 THEORY

Unit 5: Physiology of Heart **12**

Structure of mammalian heart; Coronary circulation; Structure and working of conducting myocardial fibers. Origin and conduction of cardiac impulses Cardiac cycle; Cardiac output and its regulation, Frank-Starling Law of the heart, nervous and chemical regulation of heart rate. Electrocardiogram, Blood pressure and its regulation.

Practical:

1. Enumeration of red blood cells and white blood cells using haemocytometer
2. Estimation of haemoglobin using Sahli's haemoglobinometer

**Course Code: ZC410T
CORE COURSE X:
BIOCHEMISTRY OF METABOLIC PROCESSES**

C7 THEORY

Unit 1: Overview of Metabolism (Part). **3[10]**

Use of reducing equivalents and cofactors; basics of intermediary metabolism and overview of regulatory strategies.

Unit 4: Protein Metabolism **10**

Catabolism of amino acids: Transamination, Deamination, Urea cycle; Fate of C-skeleton of Glucogenic and Ketogenic amino acids.

Practical:

1. Detection of SGOT and SGPT or GST and GSH in serum/ tissue
2. To perform the Acid and Alkaline phosphatase assay from serum/ tissue.

**GE IV:
ENVIRONMENT AND PUBLIC HEALTH**

THEORY

UNIT I: Introduction **12**

Sources of Environmental hazards, hazard identification and accounting, fate of toxic and persistent substances in the environment, dose Response Evaluation, exposure Assessment.

Practical:

1. To determine pH, Cl, in water samples from different locations.

Dr. Moni Kankana Kalita, Asst. Professor:

Course Code: ZC408T

CORE COURSE VIII:

COMPARATIVE ANATOMY OF VERTEBRATE

C5 THEORY

Unit 5: Circulatory System

8

General plan of circulation, evolution of heart and aortic arches

Unit 6: Urinogenital System

6

Succession of kidney, Evolution of urinogenital ducts, Types of mammalian uteri.

Practical:

1. Study of structure of any two organs (heart, lung, kidney, eye and ear) from video recording (may be included if dissection not permitted)
2. Dry Lab: To trace the labelled C atoms of Acetyl-CoA till they evolve as CO₂ in the TCA cycle

Course Code: ZC409T

CORE COURSE IX:

ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS

C6 THEORY

Unit 4: Blood

14

Components of blood and their functions; Structure and functions of haemoglobin Haemostasis: Blood clotting system, Kallikrein-Kininogen system, Complement system & Fibrinolytic system, Haemopoiesis **Blood groups: Rh factor, ABO and MN.**

Practical:

1. Recording of frog's heart beat under in situ and perfused conditions*
2. Recording of blood pressure using a sphygmomanometer (*Subject to UGC guidelines)

Course Code: ZC410T

CORE COURSE X:

BIOCHEMISTRY OF METABOLIC PROCESSES

C7 THEORY

Unit 1: Overview of Metabolism

3[10]

Catabolism vs Anabolism, Stages of catabolism, Compartmentalization of metabolic pathways.....

Unit 3: Lipid Metabolism

14

β -oxidation and omega -oxidation of saturated fatty acids with even and odd number of carbon atoms; Biosynthesis of palmitic acid; Ketogenesis.

Practical:

1. Detection of SGOT and SGPT or GST and GSH in serum/ tissue

GE IV:

ENVIRONMENT AND PUBLIC HEALTH

THEORY

Unit 3 Pollution

10

Air, water, noise pollution sources and effects, Pollution control.

Unit 5 Diseases

10

Causes, symptoms and control of tuberculosis, Asthma, Cholera, Minamata disease, typhoid

Practical:

To determine SO₄, NO₃ in water samples from different locations

Date: 03/03/2022

Course Code: ZC613T
CORE COURSE XIII:
DEVELOPMENTAL BIOLOGY THEORY (CREDITS 4)

Mr. Rajib Rudra Tariang, Head

C 11 THEORY

Unit 2: Early Embryonic Development **28**

Planes and patterns of cleavage; Types of Blastula; Fate maps (including Techniques); Early development of frog and chick up to gastrulation; Embryonic induction and organizers.

Unit 3: Late Embryonic Development **8**

Fate of Germ Layers; Extra-embryonic membranes in birds; Implantation of embryo in humans, Placenta (Structure, types and functions of placenta).

Practical:

1. Study of the developmental stages and life cycle of *Drosophila* from stock culture
2. Project report on *Drosophila* culture/chick embryo development.

Course Code: ZC614T
CORE COURSE XIV:
EVOLUTIONARY BIOLOGY THEORY (CREDITS 4)

C 12 THEORY

Unit 5: Basic concept of Population genetics: **13**

Hardy-Weinberg Law (statement and derivation of equation, application of law to human Population); Evolutionary forces upsetting H-W equilibrium; Natural selection (concept of fitness, mechanism of working, types of selection, density- dependent selection, heterozygous superiority, kin selection, adaptive resemblances, sexual selection. Genetic Drift (mechanism, founder's effect, bottleneck phenomenon; Role of Migration and Mutation in changing allele frequencies.

Practical:

1. Study and verification of Hardy-Weinberg Law by chi square analysis.

Course Code: ZD607T
DSE Course - VII:
FISH AND FISHERIES THEORY (Credits 4)

DSE 3 THEORY

UNIT 1: Introduction and Classification: **6**

General description of fish; Account of systematic classification of fishes (upto classes); Classification based on feeding habit, habitat and manner of reproduction.

UNIT 2: Morphology and Physiology: **18**

Types of fins and their modifications; Locomotion in fishes; Hydrodynamics; Types of Scales, Use of scales in Classification and determination of age of fish; Gills and gas exchange; Swim Bladder: Types and role in Respiration, buoyancy.

Practical:

1. Study of *Petromyzon*, *Myxine*, *Pristis*, *Chimaera*, *Exocoetus*, *Hippocampus*, *Sardinella*, *Tenualosa*, *Mugil*, *Gambusia*, *Labeo*, *Heteropneustes*, *Anabas*.
2. Study of air breathing organs in *Channa*, *Heteropneustes*, *Anabas* and *Clarias*
3. Project Report on a visit to any fish farm/ pisciculture unit/Zebrafish rearing Lab.

Course Code: ZD608T
DSE Course VIII: IMMUNOLOGY
THEORY (Credits 4)

Mr. Rajib Rudra Tariang

DSE 4 THEORY

Unit 1: Overview of Immune System

10

Historical perspective of Immunology, Early theories of Immunology, Cells and organs of the Immune system.

Unit 3: Antigens

8

Antigenicity and immunogenicity, Immunogens, Adjuvants and haptens, Factors influencing immunogenicity, B and T-Cell epitopes

Practical:

1. Demonstration of lymphoid organs (by video)
2. Preparation of stained blood film to study various types of blood cells

Course Code: ZC613T
CORE COURSE XIII:
DEVELOPMENTAL BIOLOGY THEORY (CREDITS 4)

Mrs. Aparajita Gogoi:

C 11 THEORY

Unit 4: Post Embryonic Development

12

Metamorphosis: Changes, hormonal regulations in amphibians and insects; **Regeneration:** Modes of regeneration, epimorphosis, morphallaxis and compensatory regeneration (with one example each); **Ageing:** Concepts and Theories.

Practical:

1. Study of whole mounts and sections of developmental stages of frog through permanent slides: Cleavage stages, blastula, gastrula, neurula, tail-bud stage, tadpole (external and internal gill stages)
2. Study of whole mounts of developmental stages of chick through permanent slides: Primitive streak (13 and 18 hours), 21, 24, 28, 33, 36, 48, 72, and 96 hours of incubation (Hamilton and Hamburger stages).

Course Code: ZC614T
CORE COURSE XIV:
EVOLUTIONARY BIOLOGY THEORY (CREDITS 4)

C 12 THEORY

Unit 1: Life's Beginnings:

7

Chemogeny, RNA world, Biogeny, Origin of photosynthesis, Evolution of eukaryotes

Unit 2: Historical review of evolutionary concept:

4

Lamarckism, Darwinism, Neo- Darwinism.

Practical:

1. Study of homology and analogy from suitable specimens

Course Code: ZD607T
DSE Course - VII:
FISH AND FISHERIES THEORY (Credits 4)

DSE 3 THEORY

Unit 4: Aquaculture

20

Sustainable Aquaculture: Extensive, semi-intensive and intensive culture of fish; Pen and cage culture; Polyculture; Composite fish culture; Brood stock management; Induced breeding of fish; Management of finfish hatcheries; Preparation and maintenance of fish aquarium.

Practical:

1. Morphometric and meristic characters of fishes
2. Demonstration of parental care in fishes (video)
3. Project Report on a visit to any fish farm/ pisciculture unit/Zebrafish rearing Lab.

Course Code: ZD608T
DSE Course VIII: IMMUNOLOGY
THEORY (Credits 4)

Mrs. Aparajita Gogoi:

DSE 4 THEORY

Unit 4: Immunoglobulins

12

Structure and functions of different classes of immunoglobulins, Antigenantibody interactions, Immunoassays (ELISA and RIA), Polyclonal sera, Hybridoma technology: Monoclonal antibodies in therapeutics and diagnosis.

Unit 8: Vaccines

5

Various types of vaccines.

Practical:

1. Histological study of spleen, thymus and lymph nodes through slides/ photographs

Course Code: ZC613T
CORE COURSE XIII:
DEVELOPMENTAL BIOLOGY THEORY (CREDITS 4)

Dr. Kishor Haloi:

C 11 THEORY

Unit 2: Early Embryonic Development

28

Gametogenesis, Spermatogenesis, Oogenesis; Types of eggs, Egg membranes; Fertilization (External and Internal): Changes in gametes, Blocks to polyspermy;

Practical:

1. Study of different sections of placenta (photomicrograph/slides).

Course Code: ZC614T
CORE COURSE XIV:
EVOLUTIONARY BIOLOGY THEORY (CREDITS 4)

C 12 THEORY

Unit 4: Sources of variations:

8

Heritable variations and their role in evolution

Unit 6: Product of evolution:

7

Micro evolutionary changes (inter-population variations, clines, races, Species concept, Isolating mechanisms, modes of speciation—allopatric, sympatric, Adaptive radiation / macroevolution (exemplified by Galapagos finches

Unit 9: Phylogenetic trees:

2

Multiple sequence alignment, construction of phylogenetic trees, interpretation of trees

Practical:

1. Demonstration of role of natural selection and genetic drift in changing allele frequencies using simulation studies

Course Code: ZD607T
DSE Course - VII:
FISH AND FISHERIES THEORY (Credits 4)

DSE 3 THEORY

UNIT 3: Fisheries

12

Inland Fisheries; Marine Fisheries; Environmental factors influencing the seasonal variations in fish catches in the Arabian Sea and the Bay of Bengal; Fishing crafts and Gears; Depletion of fisheries resources; Application of remote sensing and GIS in fisheries; Fisheries law and regulations.

UNIT 5: Fish in research

4

Transgenic fish, Zebrafish as a model organism in research

Practical:

1. Study of crafts and gears used in Fisheries.
2. Demonstration of induced breeding in Fishes (video)
3. Water quality criteria for Aquaculture: Assessment of pH, conductivity, Total solids, Total dissolved solids
4. Project Report on a visit to any fish farm/ pisciculture unit/Zebrafish rearing Lab.

Dr. Kishor Haloi

**Course Code: ZD608T
DSE Course VIII: IMMUNOLOGY
THEORY (Credits 4)**

DSE 4 THEORY

Dr. Kishor Haloi

Unit 5: Major Histocompatibility Complex

7

Structure and functions of MHC molecules. Endogenous and exogenous pathways of antigen processing and presentation.

Unit 7: Complement System

4

Components and pathways of complement activation.

Practical:

1. Ouchterlony's double immuno-diffusion method
2. ABO blood group determination.

**Course Code: ZC613T
CORE COURSE XIII:
DEVELOPMENTAL BIOLOGY**

C 11 THEORY

Unit 3: Evidences of Evolution: **10**

Fossil record (types of fossils, transitional forms, geological time scale, evolution of horse, three domains of life, neutral theory of molecular evolution, molecular clock ,example of globin gene family.

Unit 7: Extinctions: **2**

Back ground and mass extinctions (causes and effects), detailed example of K-T extinction.

Unit 8: Origin and evolution of man: **6**

Unique hominin characteristics contrasted with primate characteristics, primate phylogeny from Dryopithecus leading to Homo sapiens, molecular analysis of human origin.

Practical:

1. Study of fossils from models/ pictures.
2. Graphical representation and interpretation of data of height/ weight of a sample of 100 humans in relation to their age and sex.

**Course Code: ZC614T
CORE COURSE XIV:
EVOLUTIONARY BIOLOGY THEORY (CREDITS 4)**

C 12 THEORY

Unit 3: Evidences of Evolution: Fossil record (types of fossils, transitional forms, geological time scale, evolution of horse, three domains of life, neutral theory of molecular evolution, molecular clock , example of globin gene family.

Unit 7: Extinctions; Back ground and mass extinctions (causes and effects), detailed example of K-T extinction.

Unit 8: Origin and evolution of man; Unique hominin characteristics contrasted with primate. characteristics, primate phylogeny from Dryopithecus leading to Homo sapiens, molecular analysis of human origin.

Practical:

1. Study of fossils from models/ pictures.
2. Graphical representation and interpretation of data of height/ weight of a sample of 100 humans in relation to their age and sex.

Course Code: ZD607T
DSE Course - VII:
FISH AND FISHERIES THEORY (Credits 4)

DSE 3 THEORY

UNIT 2: Morphology and Physiology: 18

Communication in teleosts; Reproductive strategies (special reference to Indian fishes); Electric organs; Bioluminescence; Mechanoreceptors; Schooling; Parental care; Migration

Unit 4: Aquaculture 20

Preparation of compound diets for fish; Role of water quality in aquaculture; Fish diseases: Fungal, Bacterial, viral and parasitic; Preservation and processing of harvested fish, Fishery byproducts.

Practical:

1. Study of different types of scales (through permanent slides/ photographs).
2. Water quality criteria for Aquaculture: Assessment of pH, conductivity, Total solids, Total dissolved solids.
3. Project Report on a visit to any fish farm/ pisciculture unit/Zebrafish rearing Lab.

Course Code: ZD608T
DSE Course VIII:
IMMUNOLOGY

DSE 4 THEORY

Unit 2: Innate and Adaptive Immunity 10

Anatomical barriers, Inflammation, Cell and molecules involved in innate immunity, Adaptive immunity (Cell mediated and humoral), passive: Artificial and natural Immunity, Active: Artificial and natural Immunity, Immune dysfunctions (brief account of autoimmunity with reference to Rheumatoid Arthritis and tolerance, AIDS).

Unit 6: Cytokines 4

Properties and functions of cytokines, Therapeutics Cytokines

Practical:

1. Demonstration of ELISA
2. Histological study of spleen, thymus and lymph nodes through slides/ photographs

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

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

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

Miss. Priyanka Debnath

LSC 301: ANIMAL PHYSIOLOGY

Unit 1: Respiration in vertebrates, respiratory pigments; exchange and transport of gases, mechanism of breathing in mammals. Structure, type and function of nephrone; role of hormone in urine formation.

LSC 302: IMMUNOLOGY

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

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

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.

DEPARTMENT OF ZOOLOGY: CLASS ROUTINE FOR HS & TDC CBCS (even semester) w.e.f. 24/03/2022

DAY	8:00-9:00 AM	9:00-10:00 AM	10:00-11:00 AM	11:00 AM-12:00 PM	12:00- 1:00 PM	1:00-2:00 PM	2:00-3:00 PM	3:00-4:00 PM
MON	HS-I EVS-HALL SEM- II Remedial class SEM IV NSS-M16 KH SEM-VI Remedial Class		SEM IV C9-D AG	SEM - II C3-M2 RRT SEM VI C14-D KH	SEM - II C4- M2 RRT SEM IV C10-D AG	SEM VI DSE-3 MKK	HS- I BIO (ZOO)- M15 RRT	
PRCT	SEM-II G PRACT. AG/MKK						HS - I PRACTICAL KH/MKK HS- II PRACTICAL KH/MKK SEM VI DSE 4 PRACT RRT/KH	
		SEM IV C-8 PRACT. AG/MKK SEM VI C13 PRACT. RRT/KH				SEM IV GE4 PRACT. AG/MKK		
TUE	HS-II BIO ZOO - M2 RRT SEM II Remedial Class SEM IV Remedial Class SEM VI Remedial Class	SEM IV G-D MKK SEM VI DSE-4 RRT	SEM II C4-M12 AG	SEM-II G-M5 AG SEM IV C-10-D RRT SEM VI-C-13-D MKK	EVS-AT2 SEM VI C-14 MKK	SEM IV C-8-D KH		
PRCT	SEM II C3 PRACT. AG/MKK SEM IV PRCT. C-9 KH/RRT					SEM VI DSE-3 PRACT. MMK/AG		
WED	HS-I EVS-HALL SEM- II Remedial class SEM-VI Remedial Class	SEM II C3 M-12 KH	SEM II G - M12 RRT SEM IV C8-D AG	HS-I BIO (ZOO) - M2 KH SEM IV C9-D RRT SEM VI DSE-4-D MKK	SEM IV G -D KH SEM-VI-C13-D AG		SEMINAR/GD SEM IV SEC-NSS M-16 RRT SEM VI MENTORING	
PRACT	SEM IV C-10 PRACT. RRT/KH					SEM VI C-14 AG/MKK		
		SEM VI DSE-3 KH/RRT						
THUR	SEM II Remedial Class SEM VI Remedial Class	HS-II BIO ZOO-M-15 MKK SEM II C3 -M12 AG	SEM VI C14 AG	SEM IV C-10-D MKK SEM VI DSE-3-D KH	SEM II G -M2 MKK SEM VI C-13-D RRT	SEM II EVS-AT3 RRT SEM IV-C9-D KH		
PRACT	SEM IV C8 PRACT. RRT/KH		SEM II C4-D PACT. RRT/KH				HS - I PRACTICAL KH/MKK HS- II PRACTICAL KH/MKK SEM IV GE4 RRT/KH	
						SEM VI DSE4 PRACT. AG		
FRI	HS-I EVS-HALL SEM II Remedial Class SEM VI Remedial Class		SEM IV C 10-D KH SEM VI DSE-4-D AG	HS-I BIO Z-M2 MKK SEM II C4-M12 KH SEM VI- C-14-D RRT	SEM II C4-M12 MKK SEM IV G- D RRT SEM VI DSE3-D AG	SEM II G-D KH SEM IV C-8-D RRT	SEM II MENTORING SEM VI MENTORING	
PRACT	SEM II C3 PRACT. RRT/KH SEM IV C-9 PRACT. AG/MKK					SEM VI C13 PRACT. AG/MKK		
SAT	SEM IV SEC-NSS M4 NC		SEM IV C8-D MKK SEM IV DSE-4-D KH	HS - II BIO Z- M-15 KH SEM II C3 M 5 MKK	SEM IV G-D AG	SEM IV C-9-D MKK SEM VI DSE 3- D RRT	SEM IV C-13 D KH	
PRACT	SEM IV C 10 PRACT. AG/MKK		SEM VI C14 PRACT. RRT/KH					
	SEM II GE PRACT. RRT/KH				SEM II C4 -D PRACT. AG/MKK			

		Theory	Practical	Total Classes
RRT	Mr. Rajib Rudra Tariang, HOD, Dept. of Zoology, Digboi College	13 + 2 + 2 = 17	22	39
AG	Mrs. Aparajita Gogoi, Associate Professor, Dept. of Zoology, Digboi College	11	22	33
KH	Dr. Kishor Haloi, Asst. Professor, Dept. of Zoology, Digboi College	13 + 1 + 2 = 16	24	40
MKK	Dr. Moni Kankana Kalita, Asst. Professor, Dept. of Zoology, Digboi College	13 + 2 = 15	24	39

PREPARED BY:

**Mr. Rajib Rudra Tariang, Head,
Department of Zoology, Digboi College.**

Date: 23/03/2022